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Oral presentations

Area: Comprehensive geriatric assessment

O-001

Multidimensional Prognostic Index (MPI) predicts post-discharge health-care outcomes in hospitalized older patients: an international, multicentre, one-year follow-up study. The MPI_AGE European Project

C. Musacchio [1], J. Daragjati [2], E. Topinkova [3], A. Cruz-Jentoft [4], M.C. Polidori [5], M. Paccalin [6], A. Greco [7], F. Mattace-Raso [8], A.A. Mangoni [9], M. Puntoni [10], T. Brunet [6], R. Custureri [1], A. Egbert [8], A. Mangiacotti [7], H. Michalkova [3], C. Miret [4], K. Ruxton [9], M. Simonato [2], A. Pilotto [11], on behalf of the MPI_AGE Project Investigators. *[1]Geriatrics Unit, Dept. of Geriatric Care, OrthoGeriatrics & Rehabilitation, Frailty Area, E.O. Galliera Hospital, Genova, Italy; [2]Geriatrics Unit, AULSS 6 Euganea, S Antonio Hospital, Padova, Italy; [3]Dept. of Geriatrics, First Faculty of Medicine, Charles University, Prague, Czech Republic; [4]Hospital Universitario Ramón y Cajal, Madrid, Spain; [5]Ageing Clinical Research, Dept. of Medicine II, University Hospital of Cologne, Germany; [6]Geriatrics Department University Hospital La Milétrie, Poitiers, France; [7]IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG), Italy; [8]Section of Geriatric Medicine, Dept. of Internal Medicine, Erasmus University Medical Center, Rotterdam, The Netherlands; [9]Dept. of Clinical Pharmacology, Flinders University, Adelaide, Australia; [10]Clinical Trial Unit, Scientific Directorate, E.O. Galliera Hospital, Genoa, Italy; [11]Geriatrics Unit, Dept. of Geriatric Care, OrthoGeriatrics & Rehabilitation, Frailty Area, E.O. Galliera Hospital, Genova, Italy and Geriatrics Unit, AULSS 6 Euganea, S Antonio Hospital, Padova, Italy*

Background: The MPI_AGE is a European project aimed to identify the most cost-effective health interventions according to the individual prognostic mortality-risk profile by using Comprehensive Geriatric Assessment (CGA) to calculate Multidimensional Prognostic Index (MPI).
Aim: To evaluate the usefulness of MPI in predicting post-discharge outcomes, i.e. one-year mortality and access to Home-Care Services and/or Nursing Homes.
Methods: Older patients consecutively admitted to nine Geriatric Units across Europe and Australia underwent CGA-based MPI assessment, including functional (ADL,IADL), cognitive (SPMSQ), nutrition (MNA-SF), risk of pressure sores (Exton-Smith Scale), Comorbidity (CIRS), drugs and cohabitation. Patients were divided in MPI-1-low-risk, MPI-2-moderate-risk and MPI-3-high-risk of mortality. Time-to-event (Kaplan-Meier and Cox regression) and logistic analyses were performed adjusting data for age, gender, diagnosis and hospital center. Area under receiving-operating-characteristic (ROC) curve was also calculated.
Results: 1,069 hospitalized patients were recruited (mean age 84.1±7.4 years, females = 60.8%) and classified according to the MPI at admission as MPI-1 = 167 patients (15.6%), MPI-2 = 482 patients (45.0%) and MPI-3 = 413 patients (38.6%). MPI significantly predicted one-year all-cause mortality (MPI-1 = Hazard Ratio 1.0 reference; MPI-2 = HR 2.79, 95% CI: 1.56–4.97, MPI-3 = HR 6.49, 95% CI: 3.69–11.4, p-for-trend <0.0001) with good accuracy (ROC curve = 0.75, $p<0.001$). Moreover, MPI grade was significantly associated with access to Home-Care Services (MPI-1 = Odds Ratio 1.0 reference; MPI-2 = OR 2.47, 95% CI: 1.5–4.0, MPI-3 = OR 1.82, 95% CI: 1.1–3.0, p=0.002) and to Nursing Home (MPI-1 = OR 1.0 reference; MPI-2 = OR 2.2, 95% CI: 1.3–3.8, MPI-3 = OR 1.7, 95% CI: 0.9–2.9, p=0.002) during the one-year follow-up period.
Conclusion: MPI predicts long-term mortality with high-grade of accuracy. Moreover, MPI stratification may identify older patients who need access in Home-Care Services and Nursing Homes after hospital discharge.

O-002

Self-rated health as a predictor of mid-term and long-term mortality in older Afro-Caribbeans hospitalised via the emergency department

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Aim: To determine whether self-rated health (SRH) is an independent prognostic factor for mid- and long-term mortality in older Afro-Caribbean patients hospitalised for an acute condition.
Methods: This study was a prospective cohort that recruited patients from the University Hospitals of Martinique Acute Care for Elders (ACE) unit (French West Indies) from January to June 2012. Patients aged 75 or older and hospitalized for an acute condition were eligible. The primary outcome was time to death within the 36-week follow-up. SRH was the explanatory variable of interest. Demographic and clinical characteristics were recorded. Cox's Proportional Hazards model was used to estimate the relationship between SRH and mortality.
Results: In total, 223 patients were included; average age 85.1±5.5 years, mainly women (61.4%). In total, 123 patients reported "very good to good" health, and 100 "medium to very poor" health. Crude mortality rates at six months, 1, 2 and 3 years were 30.5%, 34.8%, 48.4%, and 57.0%, respectively. SRH reached significant relationship for all mortality endpoints, after adjustment for baseline demographic and clinical characteristics. The adjusted hazard ratios for subjects who perceived their health as medium, poor or very poor was 1.6 to 2.7 times greater than that of subjects who reported good or very good health.
Conclusion: The association between self-rated health and mid- to long-term mortality in elderly subjects could have implications for clinical practice, particularly in helping practitioners to better estimate prognosis in the acute care setting.

O-003

Effect of geriatrician-performed comprehensive geriatric care on health care utilization in older persons referred to a community rehabilitation unit

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Introduction: Persons with geriatric conditions account for a large share of health care utilization. The aim of this study was to investigate the effect of a geriatrician-performed comprehensive geriatric care (CGC) on secondary and primary health care utilization in older persons referred to community rehabilitation.
Methods: The study was a randomized, controlled trial conducted in two Danish community rehabilitation units. Inclusion: persons aged 65 or older from home or hospital. Exclusion: persons receiving palliative care or assessed by a geriatrician during the past month. Intervention group (IG): CGC including medical history, physical examination, blood tests, medication adjustment, and related treatment performed by a geriatrician. Control group (CG): standard care with the GPs as back-up. Outcomes were measured within 90 days of follow-up. Primary outcome: inpatient contacts (hospital admissions or emergency department visits). Secondary outcomes: days spent in hospital, outpatient contacts, and GPs' contacts. Results: 368 persons were randomized (185 to IG/183 to CG). No significant differences in number of inpatient and outpatient contacts, days spent in hospital or number of out of hour GP-visits or phone calls were found between the groups. Incidence rate ratios for number of daytime GPs' consultations and visits (0.7, 95% CI: 0.6–0.9), daytime phone and email consultations (0.6, 95% CI: 0.5–0.7), or other GPs' services (0.5, 95% CI: 0.4–0.7) were all significantly lower in the IG ($p<0.001$).
Conclusions: Geriatrician-performed CGC reduces the primary health care utilization, but has no impact on secondary health care utilization in older persons referred to community rehabilitation unit during 90 days' follow-up.

O-004

Anemia, even mild, is associated with early death and altered geriatric domains, in elderly patients with cancer

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Introduction: Anemia is frequent in elderly patients with cancer, due to many physio-pathological mechanisms (inflammation, bleeding, iron and vitamin deficiency, bone marrow failure, default of hematopoiesis). The aim of this study was to determine the prevalence of anemia and its severity, in geriatric oncology population, and its association with mortality and geriatric domains alterations.
Methods: Prospective cohort ANCRAGE (ANalyse Cancer et Sujet AGE) including cancer patients aged ≥75 years, referred to geriatric oncology clinic between 2009 and 2015. Anemia severity was graded according to World Health Organization criteria: mild [women: 110–119g/L; men: 110–12.9g/L], moderate [80–109], severe [<80]. Geriatric assessment explored functional domain (assessed with Activities of Daily Livings); fall risk (Timed Get Up and Go Test, One-Leg Standing Balance Test, and five-repetition sit-to-stand test); nutritional status (Mini-Nutritional Assessment and serum albumin); mood (Geriatric Depression Scale) and cognitive impairment (Mini-Mental State Examination, MMSE). Early mortality was considered at three, six and 12 months.
Results: Of 884 patients with available data, 392 had anemia (44%): mild in 237 patients (60%), moderate in 151 (39%) and severe in four. Anemia was associated with mortality ($p<0.0001$) and alteration of all explored geriatric domains, except MMSE. Mild anemia was associated with functional alteration (p=0.01), risk of falls (p=0.03), malnutrition ($p<0.0001$) and early death ($p<0.0004$).
Conclusions: Hemoglobin appeared to be an interesting biomarker, as its value was associated with mortality and altered geriatric domains in elderly cancer patients. This association remained with mild anemia, with consequences frequently underestimated by practitioners.

O-005

Oropharyngeal dysphagia and fragility: Can it be related?

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Objective: Oropharyngeal dysphagia (OD) and fragility are geriatric syndromes those are effecting the prognosis. Literature has been suggested OD may be present in fragile elderly without neurodegenerative diseases. We aimed to investigate the association of OD with fragility in the community dwelling elderly.
Methods: Patients admitted prospectively. Participants' demographic datas were recorded. OD screening was done by scanning the EAT-10 questionnaire which has two thresholds (≥3 and ≥15). FRAIL Scale was applied to determine the fragility. We performed the measurements of BMI, hand grip strength, time and go test (TUG), usual walking speed, activities of daily living (ADL), instrumental ADL, MNA-SF.
Results: 1138 patients ≥60 years old were enrolled. The mean age was 74.1±7.3. EAT 10 score correlated with age, number of illnesses, number of medications, fragility, BMI, hand grip strength, TUG, usual walking speed, ADL, IADL and MNA SF according to the two thresholds of EAT-10 groups. There were higher incidence of female gender, number of neurodegenerative diseases in the two thresholds of EAT-10 groups. In the linear regression analysis, EAT 10 score ≥3 (n=65, 7.6%, $p<0.012$) and EAT 10 score ≥15 (n=33, 3.8%, $p<0.001$) were found to be correlated with fragility irrespectively of all causes.
Conclusion: OD is a common public health problem and can be difficult to recognize. We have shown that OD increases with fragility. To our knowledge, this is the largest serie in the literature providing data on independent association of OD with frailty.

O-006

Malnutrition and comorbidities predict early mortality in elderly patients with cancer

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Introduction: Few data address the prognoses of elderly patients with cancer. Assessment of prognostic factors might allow specific treatment and personalized medical care. We sought to identify factors predictive of early mortality (<three months) in this patient population.
Methods: Prospective cohort included patients aged 75 years and older with solid tumors or hematologic malignancies followed in

oncology geriatric consultations. A comprehensive geriatric assessment including sociodemographic data, social status, autonomy, cognitive status (Mini-Mental Status Evaluation, MMSE), nutrition (Mini-Nutritional Assessment, MNA), depression scale, risk of falls, and comorbidities (Cumulative Illness Rating Scale for Geriatrics [CIRS-G] score) was performed. Multivariate models were created with logistic regression at three months, Cox models at six and 12 months. Sensitivity analyses were performed using multiple inputation and the maximum bias hypothesis.

Results: A total of 824 patients (mean age, 81.8 years; 48% men) were included; 28% had metastatic cancer. The mortality rates were 13%, 22%, and 37% at three, six, and 12 months, respectively. At three months, a MNA score <17 (odds ratio [OR], 8.16, 95% confidence interval [CI], 3.47–19.20), CIRS-G score >8 (OR, 2.66, 95% CI, 1.32–5.33), metastasis status (OR, 2.20, 95% CI, 1.27–3.81) were associated with mortality and a higher serum albumin level appeared protective (OR, 0.90; 95% CI, 0.85–0.94). Nutritional status was associated with the prognoses throughout follow-up. Cognitive impairment (MMSE) <24/30 was specifically associated with mortality at 12 months ($p<0.01$).

Conclusions: Personalized geriatric assessment can improve short-term treatment strategies and management of elderly patients with cancer.

O-007
Older People Short Stay Unit (OPSSU) team working across emergency areas reduces length of stay (LOS) in the over 75s

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Objectives: It is recognised that the older person, once admitted to hospital, frequently have a longer length of stay and occupy more bed days than other patients, so we focused on reducing the length of stay (LOS) for the over 75s.

Methods: Introduction of Older People Assessment and Liaison Service (OPAL) in October 2013 based in MAU improved the quality of care provided in hospital for over 75s, with limited success in reducing LOS.We set out to reduce LOS for over 75s using PDSA cycles which involved amalgamating the existing OPAL team with the acute therapy team; senior therapy presence in emergency areas; created OPSSU (Dec 2015) with 13 beds expanding to 29 beds, patient information leaflets emphasizing the ethos of the importance of getting patients home and developed a culture in the unit "Time to Move" with posters on the ward.

Results: Before the full implementation in Dec 2015, there were 10,040 over 75 admissions with LOS 8.85 days (Dec 2014–Nov 2015) and after full implementation, there were 10,292 over 75 admissions with LOS 7.66 days (Dec 2015–Nov 2016) – 13.4% reduction in LOS saving 10,017 bed days. Using under 75 as control, the LOS reduced from 3.79 (Dec 2014–Nov 2015) to 3.54 days (Dec 2015–Nov 2016) – only 6.6% reduction in LOS.98.6% (74 patients) mentioned that they were extremely likely/likely to recommend the service.

Conclusions: OPSSU team working across all emergency areas reduces the LOS for the over 75s with significant cost savings.

O-008
Effect of an assessment in a Balance and Fall Prevention Center on falls rate, and falls and injurious falls incidence in older fallers: a before/after study

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Falls represent a major cause of burden and death in older adults. Patients visiting the Montpellier Balance and Fall Prevention Center (BFPC) (EIP on AHA reference site) benefit from a plan for falls and fracture prevention based on a 3-hour multidimensional assessment by a geriatrician, a physiotherapist, an occupational therapist, and a podiatrist. 134 consecutive patients (mean age, 82 years; 69% women) referred by their GP to the BFPC between Sept. 2014 and Sept. 2015 for balance disturbances and with at least one fall in the previous 6 months were followed for 6 months after assessment. Falls number per patient, 3 and 6 months after vs 3 and 6 months before assessment, was significantly reduced [-2.9 ± -10.3, $p<0.0001$; -5.2 ± -20.6; $p<0.0001$, respectively]. A significant decrease was found for falls rate [25% vs 88% ($p<0.0001$), and 32% vs 100% ($p<0.0001$), respectively]. Severe and minor injuries were lower 6 months after vs 6 months before assessment [6% vs 31%, $p<0.0001$; 8% vs 14%, $p<0.05$, respectively]. The same trend was observed for major injuries in the subgroup of patients with at least a fall during the follow-up (17% vs 37%, p=0.1). Fear of falling was significantly reduced after 6 months (p=0.001). Satisfaction of patients or caregivers was high at M6 (90%). Recommendations made to patients were well followed (80%). Walking ability was preserved at M6. Present results show that referral by their GP of older persons who fall to a fall clinic reduces falls incidence, falls rate, and injurious falls.

O-009
Geriatric factors associated with one year mortality after cardiac surgery

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Objective: Surgical aortic valve replacement has been shown to improve survival and quality of life in patients with severe aortic stenosis. However, cardiologic variables are known to be associated with an increased mortality. As specific geriatric factors are predominant in this older population, the aim of this study was to determine geriatric factors associated with one year mortality after a surgical aortic valve replacement for older patients with severe symptomatic aortic stenosis.

Methods: Between January 2012 and September 2014, all patients ≥75 years referred for a surgical aortic valve replacement after a complete pre-operative evaluation in a university-affiliated center were retrospectively included in this observational study. Association between one year mortality surgical aortic valve replacement and baseline characteristics including cardiac and geriatric factors was analysed by Cox models.

Results: Mean age of the 197 patients studied was 81.3 years and 48.2% were men. At one year of the intervention, 19 patients (9.6%) were dead. On multivariate analysis, previous cardiac surgery (Hazard ratio [HR] =10.47, p=0.03), undergoing concomitant cardiac surgery (HR=6.22, p=0.03), pulmonary hypertension (HR=3.73, 0.04) were still associated with one year mortality. Moreover, cognitive impairment defined by mini-mental state examination <24 was also associated with one year mortality (HR=4.67, p=0.04).

Conclusion: The present study shows that among geriatric factors, cognitive impairment was the only predictor of one year mortality after a surgical aortic valve replacement in patients aged 75 years old and older, independently of cardiac factors and other geriatric factors. This study highlights the importance of preoperative cognitive assessment.

O-010
The combination of cognitive function test score and Japanese Fall Risk Index effectively identifies the fall-prone older inpatients

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Introduction: Falls are critical turning points for older people because of postfall morbidity and mortality. As a screening tool, the Japanese fall prevention guideline proposed Fall Risk Index (FRI) consisting of 21 simple yes/no questions regarding physical and environmental factors. Since cognitive deficit is also a risk, to identify the fall-prone population more accurately, we combined Mini Mental State Examination (MMSE) score with FRI.
Methods: We utilized the geriatric ward database of 253 inpatients in the University of Tokyo Hospital, discharged from April 2016 to March 2017, mainly hospitalized for cognitive impairment or acute illness such as pneumonia. The database includes patients' characteristics, a history of falls in the past year, FRI and MMSE.Logistic regressions and receiver operating characteristic (ROC) curves were analyzed to assess MMSE and FRI as screening tools for falls.
Results: Forty-six point one percent (88/191) were identified as cognitively impaired by low MMSE scores ($\leq$23/30 points). The FRI ranged from 0 to 20 (mean 11±4) in 135 patients.Adjusted for age, sex, skeletal muscle mass index (SMI) and cognitive function, 1 point-increase of FRI demonstrated fall odds of 1.16 (95% CI: 1.02–1.31).Adjusted for age, sex, SMI and FRI, cognitively impaired patients showed fall odds of 2.78 (95% CI: 1.07–7.22). The area under the ROC curve of FRI in the cognitively impaired population was 0.72, the largest area of all variables, increased from 0.66 for the whole population.
Conclusions: The combination of low cognitive function and high fall risk index improved the identification of the fall-prone inpatients.

O-011
Prognostic impact of frailty domain trajectories on 5-year mortality in very old adults: Results from the PARTAGE cohort study

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Introduction: The prognostic value of longitudinal monitoring of frailty remains unknown in very-old adults. The objective was to identify trajectories of nutritional, cognitive functions and autonomy over time in very-old adults and to assess their association with long-term all-cause mortality.
Methods: The PARTAGE cohort study was used. Individuals aged $\geq$80 years, institutionalized, and who signed informed consent, were included in 2007 and followed-up for 5 years. Socio demographics and comorbidities were collected at baseline. Body mass index (BMI), Mini mental status examination (MMSE), and Index of activities of daily living (ADL) were assessed at baseline, 1, 2, and 5 years. Vital status was collected during the follow-up.
Results: In the 710 very-old adults recruited, mean±SD age was 88.0±0.8 years, and 78.9% were female. Seven composite trajectories were identified according to the initial level and the evolution of the nutritional, cognitive and autonomy status. As compared to the reference group (T7-stable overweight, preserved cognitive functions and autonomy), two trajectories presented a higher relative risk of dying: T1 - stable overweight, moderately impaired then declining cognitive function and autonomy, (adjusted HR=1.79, 95% CI [1.26–2.55], p=0.001) and T6 - stable normal BMI, slight cognitive decline, and moderate then amplifying loss of autonomy (adjusted HR=1.67, 95% CI [1.15–2.44], p=0.008).
Conclusions: Weight and height scales, MMSE and ADL questionnaires reflecting nutritional, cognitive frailty and loss of autonomy are reliable and simple instruments requiring insignificant time to complete. Their repeated monitoring in very-old adults provides trajectories holding prognostic information potentially warning clinicians to adjust care efforts.

O-012
Goal attainment scaling in a person-centered care setting – are older adults able to attain their goals?

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Introduction: Goal planning and goal attainment scaling is a method to facilitate the delivery of person-centered care. Little is known about the process of care delivery in person-centered care projects and the additional value of goal planning within these projects.
Methods: Community-dwelling older adults (75 years and older) received a person-centered integrated care intervention program with collaborative goal setting, the Embrace intervention. Goals were set with a case manager within a care plan. The goal of the care plan was to encourage the older adult to carry out actions autonomously, with support of the general practitioner and case manager. Older adults rated their health-problems with a severity score at start and a desirable severity score after one year of case management (goal score). After the intervention year, the goal was evaluated and an end score was measured. Characteristics of goal plans were described. The proportion of attained goals and impact of patient and goal characteristics were calculated.
Results: Among 233 older adults, 836 goal plans were formulated. Of these, 74% was attained. Goals about physical health and personal care were more likely to be attained, in contrast to goals about mobility and pain.
Conclusion: Older adults are capable of determining goals in consequence of their needs and preferences and to quantify these. With goal planning person-centered care can be facilitated and quantified.

O-013

DIALOG task force for definition of a geriatric minimum data set for clinical oncology research

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Introduction: A minimum set of geriatric data at baseline would allow comparing results across reports. The aim is to define a minimum set of geriatric parameters called the Geriatric Mini Data Set (GMDS) that allows to describe the elderly cancer population in clinical trials.
Methods: The GMDS has been defined by an adapted DELPHI-type consensus method with four groups: a steering group, a scoring group of 14 French geriatrician experts and two validation groups of national and international panels of experts. The consensus process proceeded in 6 steps: 1) initial literature search of available measuring tools; 2) individual scoring (by e-mail) of the relevance of the selected tools using a graduated (1 to 9) visual analogue scale in 3 rounds; 3) feedback between rounds of the results for each measuring tool; 5) appropriation by national panel of experts.
Results: After 3-round, tools chosen for each domain were: 1) social assessment: using two questions "Are you living alone" and "Would you have a person or caregiver able to help you"; 2) functional autonomy: Activities of Daily Living (ADL) and short-IADL; 3) mobility: timed get up and go test; 4) nutrition: unintentional weight loss in last 6 months and Body Mass Index; 5) cognitive assessment: Mini-Cog; 6) thymic status: mini-Geriatric Depression Scale; 7) comorbidity: updated Charlson.
Conclusions: DIALOG intergroup reached an agreement for a short geriatric MDS to be incorporated in future clinical trials for the elderly. This initiative still needs to be evaluated for appropriation by an international panel of experts.

O-014

Functional decline in older nursing home residents in Europe: The SHELTER study

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Introduction: Disability is an important outcome for older nursing home (NH) residents, closely linked to their quality of life and to higher health care costs. The aim of our study was to identify independent predictors of functional decline in older NH residents, taking into account both resident and facility characteristics.
Methods: We evaluated 1760 older (>65 years) NH residents participating in the SHELTER* study (57 NH among 8 countries). A decline in functional status was defined as an increase of at least one point in the MDS Long Form ADL scale during a one year follow-up. Country effect was taken into account.
Results: During the study period 891 (50,6%) NH residents experienced an ADL decline. Residents experiencing ADL decline were older (85.2 vs 84.8 ys; p=0.053), had a lower level of disability (median ADL score 9 vs 12; p=0.003), were more frequently affected by severe cognitive decline (23.2% vs 18.8%; p<0.001) and by urinary incontinence (70.4 vs 63.9, p=0.004) and used more antipsychotics (31.8 vs 26.1%; p=0.009). In the mixed effect logistic regression model factors independently associated with a higher risk of functional decline were cognitive decline and urinary incontinence, whereas the presence of a geriatrician and the nurse availability during night were protective.
Conclusions: Facility characteristics could be a target of intervention to prevent functional decline in NH: the presence of a geriatrician, associated with an adequate amount of nursing care, seem to be important to achieve this goal.
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O-015

The GCCM Home Assessment Program: survival analysis of time to institutionalization of an elderly population followed since 2006 in Monaco

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Introduction: Since 2006, the Gerontologic Coordination Center of Monaco (GCCM) takes care of disable elderly living at home. The GCCM team performs a Comprehensive Geriatric Assessment (CGA) at home, annually or in case of disability progression, as long as elderly live safety at home. Aims of this retrospective study are to estimate the time to institutionalization and to investigate predictive factors.
Methods: In April 2017, time to institutionalization was studied for 1872 patients followed by the GCCM since 2006. 574 patients had been institutionalized and 699 others died without previous institutionalization. A Kaplan-Meier analysis was performed to estimate the time to institutionalization given covariates, and a Cox model was fitted to determine the predictors of time to institutionalization.
Results: The median, mean and maximum time from the first CGA to institutionalization were 1.9, 2.4 and 10.2 years, respectively. The mean age at institutionalization was 86.9 (range: 56–104). Institutionalization-free survival at 2, 5 and 8 years were 80% (95% CI: 78 to 82%), 56% (95% CI: 53 to 59%) and 43% (95% CI: 39 to 48%), respectively. The following significant risks factors for time to institutionalization were obtained by a multivariate Cox model: age (HR: 1.03), MMS-E 20–24 (HR: 0.45), the French disability score (GIR: Groupe Iso-Ressources) 5–6 (HR: 0.62).
Conclusions: Our study gives relevant epidemiological data and confirms some well-known predictors of institutionalization such as age, disability, presence of cognitive impairment.Its originality lies on the analysis of 1872 patients followed at home, until their death or institutionalization. We emphasize the pertinence of our original program initiated 11 years ago, especially the repeated practice of CGA by a medical doctor and nurses, not in an institutional context but at home.

O-016

Assessment of clinical practices for crushing medication in geriatric units

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Objectives: To assess the modification of the form of medication and evaluate staff observance of good clinical practices. Setting: Elderly in-patients with difficulties swallowing medications within

17 geriatrics units in the 3 Teaching Hospitals of Paris-Sud. Measurements: One-day assessment of target-patient prescriptions and direct observation of nurses' rounds.
Results: 155/526 in-patients (29.5%) were unable to swallow tablets or capsules: 98 (40.3%) in long-term care, 46 patients (23.8%) in the rehabilitation unit and 11 (12.2%) in acute care (p=0.005). In thirty-nine (27.3%) of the 143 prescriptions studied, all tablets were safe to crush and all capsules were safe to open. In 104 cases, at least one medication could not be safely modified, including 26 cases (18.2%) in which none of the prescribed drugs were safe to crush or open. In 48.2% of the 110 medications that were crushed, crushing was forbidden, and presented a potential threat in 12.7% of cases or a reduced efficacy in 8.2% of cases. Crushing methods were rarely appropriate: specific protective equipment not used (81.8%), crushing equipment shared between patients without cleaning (95.1%), medications spilled or lost (69.9%). The method of administration was appropriate (water, jellified water) in 25% of the cases, questionable (soup, coffee, juice, cream) in 55% of the cases and unacceptable (laxative) in 21% of the cases.
Conclusion: Management of drug prescriptions in patients with swallowing difficulties is not optimal, and may even have iatrogenic effects. Doctors, pharmacists and nurses need to reevaluate their practices.

Area: Cognition and dementia

O-017
Impact of opioid initiation on antipsychotic and benzodiazepine and related drug use among persons with Alzheimer's disease – An interrupted time series analysis

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Introduction: Analgesia use may reduce behavioral and psychological symptoms of dementia and symptomatic drug use of persons with Alzheimer's disease (AD). We aimed to analyze the impact of opioid initiation on the prevalence of antipsychotic and benzodiazepine and related drug (BZDR) use among community-dwelling persons with AD.
Methods: Utilizing register-based Medication use and Alzheimer's disease (MEDALZ) cohort, we collected all community-dwelling persons diagnosed with AD during 2010–2011 in Finland initiating opioid use and a matched cohort of non-initiators. Prevalences of antipsychotic and BZDR use in 30-day time periods six months pre-opioid initiation were compared with time periods six months after with interrupted time series analyses.
Results: We included 3,327 opioid initiators and 3,325 non-initiators with AD. Six months before opioid initiation, 13.3% and 27.1% of opioid initiators used antipsychotics and BZDRs, respectively; 18.3% and 28.9% at opioid initiation and 17.3% and 26.9% six months later. Accounting for the pre-opioid rate, prevalence of antipsychotic use decreased 0.3 percentage points (pps, 95% confidence interval 0.1–0.5) and BZDR use 0.3 pps (0.3–0.4) per month after opioid initiation. Compared to non-initiators, opioid initiation immediately resulted in an increase of 1.9 pps (1.4–2.3) for antipsychotics and of 1.6 pps (1.3–1.9) for BZDR use. Post-opioid initiation, there was a decrease of 0.5 pps per month (0.4–0.7) for antipsychotics and of 0.4pps (0.3–0.5) for BZDR use until the end of the follow-up.
Conclusions: Opioid use initiation slightly decreased antipsychotic and BZDR use compared to pre-opioid initiation and to non-initiators.

O-018
Associated risk factors of restraint use in older adults with home care: A cross-sectional study

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Introduction: Although there is evidence that restraint use in home care is increasing, research into the factors associated with restraint use in this setting is scarce. The aim of the study was to gain insight into the factors associated with restraint use on older adults receiving home care.
Methods: A cross-sectional survey was completed by the patients' primary care nurses (June 2013). A binary logistic regression model with generalised estimating equations was used to evaluate factors associated with use of restraints. Eight thousand subjects were randomly selected from a total of 45,700 older adults.
Results: The mean age of the sample (n=6397) was 80.6 years, 66.8% were women and 46.4% lived alone. 24.7% of the patients were subject to restraint. Multivariate logistic regression indicated that restraint use was associated with supervision [OR=2.433, 95% CI: 1.948 3.038]; dependency in ADL-activities (i.e. eating [OR=2.181, 95% CI: 1.212–3.925], difficulties in transfer [OR=2.131, 95% CI: 1.191 3.812] and continence [OR=1.436, 95% CI: 0.925–2.231]; perceived risk of falling in the nurses' clinical judgement [OR=1.994, 95% CI: 1.710–2.324], daily behavioural problems [OR=1.935, 95% CI: 1.316 2.846] and less than daily behavioural problems [OR=1.446, 95% CI: 1.048 1.995]; decreased well-being of the informal caregiver [OR=1.472, 95% CI: 1.126 1.925], the informal caregiver's dissatisfaction with family support [OR=1.339, 95% CI: 1.003 1.788]; patient's cognitive impairment [OR=1.398, 95% CI: 1.290 1.515]; polypharmacy [OR=1.415, 95% CI: 1.219 1.641].
Conclusions: The study results provide insight into new and context specific factors associated with use of restraints in home care (e.g. supervision, informal caregiver's decreased well-being and dissatisfaction with family support). These insights could support the development of interventions to reduce use of restraints in home care.

O-019
The risk of Alzheimer's disease associated with benzodiazepines and related drugs: A nationwide nested case-control study

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Objective: To assess the association between benzodiazepine and related drug (BZDR) use and risk of Alzheimer's disease (AD) with cumulative consumption and duration of use based models with 5-year lag time between exposure and outcome.
Methods: A nationwide nested case-control study of all Finnish community dwelling persons who had clinically verified AD diagnosis in 2005–2011 (N=70,719) and their age, sex and region of residence matched controls (N=282,862). AD diagnosis was based on DSM-IV and NINCDS-ADRDA criteria. BZDR purchase data in Defined Daily Doses, were extracted from the Prescription register since 1995. BZDR use periods, i.e. when continuous use started and ended, were calculated using validated PRE2DUP-method. The association between BZDR use and AD was assessed using conditional logistic regression.
Results: Use of BZDRs were associated with somewhat increased risk of AD (adjusted OR 1.05, 95% CI 1.03–1.07). A dose-response relationship was observed with both cumulative consumption and duration when accounting for occupational social class and comorbidities. The association between BZDR use in general and AD was evident also after additional adjustment for other psychotropic use. However, adjustment for other psychotropics removed the cumulative dose-response relationship by attenuating the ORs in the highest dose category.
Conclusions: BZDR use in general was associated with somewhat increased risk of AD with no major differences were observed between different subcategories of BZDRs (i.e. benzodiazepines, Z drugs, short/medium acting or long acting BZDRs). Cumulative dose-response relationship was abolished after adjustment for other psychotropics, indicating that the association may partially be due to confounding by indication.

O-020
2-Hour interactive workshop for family caregivers followed by weekly instruction with postcard for 12 weeks reduced burden of caregivers and improved behavioral psychological symptoms of dementia (BPSD) of care receivers

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Background: Family caregivers for people with dementia are in distress and feel severe burden. Objective: The aim of this study is to evaluate the effectiveness of 2-hour interactive workshop of multimodal comprehensive care methodology for family caregivers who are taking care of people with dementia at home. behavioral psychological symptoms of dementia (BPSD) of their care receivers were measured as secondary outcome.
Methods: Family caregivers participated 2-hour interactive workshop of multimodal comprehensive care methodology: Humanitude. The participants performed this care methodology at home to their cognitive impaired care receivers. 12 postcards were sent to the participants weekly to teach the care techniques of the week. The burden of caregivers was measured by Zarit Burden Interview (ZBI) and BPSD of care receivers was scored by Behavioral Pathology in Alzheimer's Disease (BEHAVE-AD) rating scale. They were evaluated before the workshop (month 0), at month 1 and month 3 after the workshop.
Results: 148 family caregivers enrolled the study and 118 completed 3-month follow up. ZBI of family caregivers was significantly reduced from 13.1 at month 0, then 10.7 at month 1 ($p<0.001$) and 10.5 at month 3 ($p<0.001$). BPSD was also significantly reduced from 12.9 at month 0, then 10.7 at month 1 ($p<0.01$) and 11.2 at month 3 ($p<0.05$).
Conclusion: 2-hour interactive workshop of multimodal comprehensive care methodology: Humanitude followed by 12 weekly postcard instructions is effective to reduce the burden of family caregivers and to improve BPSD of care receivers.

O-021
Is proton pump inhibitor use associated with an increased risk of Alzheimer's disease?

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Introduction: Objective was to investigate whether PPI use is associated with an increased risk of clinically verified Alzheimer's disease (AD).
Methods: A Finnish nationwide nested case-control study MEDALZ includes all community-dwelling persons with newly diagnosed AD during 2005–2011 (N=70,719), and up to four age-, sex- and region of residence matched comparison persons for each case (N=282,862). Data were extracted from Finnish nationwide health care registers. Proton pump inhibitor (PPI) use was derived from purchases recorded in the Prescription register data since 1995 and modelled to drug use periods with PRE2DUP method. AD was the outcome measure.
Results: PPI use was not associated with risk of AD with 3 year lag window applied between exposure and outcome (adjusted OR 1.03, 95% CI 1.00–1.05). Similarly, longer duration of use was not associated with risk of AD (1–3 years of use, adjusted OR 1.01 [95% CI 0.97–1.06], ≥3 years of use adjusted OR 0.99 [95% CI 0.94–1.04]). Higher dose use was not associated with an increased risk (≥1.5 defined daily doses per day, adjusted OR 1.03 [95% CI 0.92–1.14]).
Conclusion: In conclusion, we found no clinically meaningful association between PPI use and risk of Alzheimer's disease. The results for longer duration of cumulative use or use with higher doses did not indicate dose-response relationship.

O-022
Association between potentially inappropriate medication and mild cognitive impairment in patients attending memory clinics, Memento cohort

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The use of potentially inappropriate medication (PIM) is common in older adults and may be associated with adverse health events such as falls. In a large nationwide cohort of persons with either isolated cognitive complaints (ICC) or mild cognitive impairment (MCI), the Memento cohort, we assessed the adjusted association between the PIM use and MCI at baseline. A total of 2323 outpatients were recruited with either ICC or MCI from 28 French research memory clinics. PIM were identified using the Beers 2015 criteria and the EU(7)-PIM list. A multivariate logistic regression analysis was conducted to assess the association between PIM use and MCI (vs. ICC).A total of 1780 patients aged 65 years and over were selected for the purpose of this analysis among whom 1500 had MCI. A total of 945 (53.1%) patients received at least one PIM. The most

common class of PIM were peptic ulcer drugs (70.2%), anxiolytics (30.7%), anti-thyroid synthesis (23.9%), antidepressant (20.1%) and sedative-hypnotics (19.8%). After adjusting for sociodemographic characteristics, MMSE score, number of drugs, NPI depression and anxiety scores, PIM use was more frequent in patients with MCI than ICC (Odds Ratio 1.44, 95% Confidence Interval 1.03 to 1.99). More than half of elderly included in the Memento cohort are exposed at baseline to PIM, most of them are observed among participants with MCI. Medication use needs to be improved in older adults. The Memento cohort will allow to assessing the impact of PIM on further evolution of cognitive profile of the participants.

O-023

The Short Physical Performance Battery (SPPB) relates to neuroimaging biomarkers of Alzheimer's disease in cognitively normal elderly subjects

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Introduction: Gait speed begins to slow a decade before the diagnosis of Mild Cognitive Impairment (MCI), suggesting that gait abnormalities could be markers for preclinical states of dementia. The SPPB tool evaluates locomotion by gait speed, balance and strength. Poor performances are associated with functional decline, hospitalization and mortality. We aim to examine the association between SPPB and neuroimaging biomarkers of Alzheimer's disease (AD) in cognitively normal elderly subjects.
Methods: Cross-sectional design of 318 cognitively normal elderly subjects participating to the INSIGHT PreAD study. A trained nurse assessed SPPB and participants underwent multimodal neuroimaging and automated methods measured hippocampal volumes in MRI, FDG-PET standardized uptake values (SUV) in AD signature regions and amyloid PET SUV ratio (SUVr). Linear regression methods were used for statistical analysis.
Results: Higher PET FDG SUV was associated to higher performances in SPPB total scores (Coef = 0.7, r=0.02, p=0.019), as well as with faster gait speed (Coef = 0.09, r=0.01, p=0.049) and lower time needed to realize 5-chair stands (Coef = −1.4, r=0.01, p=0.038). Similarly, we observed a trend for an association of SPPB scores with hippocampal volumes (Coef = 0.465, r=0.012, p=0.05). After adjustments for potential confounding variables, the association of FDG PET SUV values and SPPB total score (Coef = 0.73, r=0.047, p=0.0207) and gait speed (Coef = 0.12, r=0.0998, p=0.0141) remained statistically significant. There was no association between SPPB and amyloid SUVr.
Conclusion: SPPB total score, gait speed and 5 chair stands are associated with neurodegeneration in cognitively normal elderly people, demonstrating that gait disturbances, assessed with this test, may be a potential marker of preclinical AD.

O-024

Effect of a program for family caregivers with close relatives in institutions

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Introduction: In order to meet the specific needs of the family caregivers with close relatives in institutions, we created a program called "EHPAD Aidant" (Nursing home caregivers) focusing on their difficulties, identified beforehand during focus groups of families and professionals. These difficulties are based on the ignorance of the potential and limitations of a nursing home, and on their own limitations. The objective was to evaluate the impact of the "EHPAD Aidant" program on obstacles, management strategies, satisfaction levels and anxiety-depressive symptomatology among a group of caregivers.
Methods: Eighty caregivers aged 67 (±10) received multidisciplinary support ((psychologists, geriatric physicians, speech therapists, coordinating nurses, nursing home directors) in 2-hour weekly sessions during 6 weeks. Topics included institution management, dementia, psychic stakes of entering an institution, diet and end-of-life support. Pre-and post-intervention evaluations focused on anxiety, depression, caregiver task, situational management strategies, and satisfaction. Focus groups were filmed and analyzed.
Results: Results showed a great satisfaction of caregivers, a better understanding of the functioning of the nursing home and of the professionals' missions, an improved communication with the staff of the institution, an improvement of the relationship with the close in institution, a redefinition of the role and place of the caregiver within the institution, with close relatives in institutions and decreased feelings of guilt among caregivers related with feelings of failure and abandonment.
Conclusion: Providing caregivers with a pathway, changing their perception of the disease and the care relationship resulted in a redefinition of their caregiving role within the institution.

Area: Frailty and sarcopenia

O-025

Tracking changes in frailty throughout later life: Results from a 17-year longitudinal study in the Netherlands

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Introduction: Few studies have investigated changes in frailty throughout later life, and variability in change between subgroups. Our aim was to investigate changes in the degree of frailty with aging, and the extent to which changes are determined by socio-demographic characteristics.
Methods: Six waves of the Longitudinal Aging Study Amsterdam (LASA) across atime period of 17 years were used to study changes in frailty among a sample of 1660 Dutch older adults aged 65 and over at baseline. The degree of frailty was measured at each wave with a 32-item frailty index (FI), based on the deficit accumulation approach. Socio-demographic characteristics included age, sex, educational level and partner status. Generalized Estimating Equation (GEE) analyses were performed to study longitudinal frailty trajectories over a period of 17 years.
Results: The overall mean FI score at baseline was 0.15, and increased to 0.36 after 17 years of follow-up. The average doubling time in the number of deficits was 12.5 years, and this was similar in those aged 65–74 years compared to those aged 75+. Higher baseline FI scores were observed in people with a higher age, females, lower educated and people without a partner. The rate of increase in FI score was only associated with partner status.

Conclusions: The degree of frailty increased with aging, but the rate of deficit accumulation was relatively stable during later life.

O-026
Integrated geriatric and primary care management of frail older adults in the community

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Introduction: Frailty is a reversible state of vulnerability towards disability and other outcomes in older adults. We are implementing an integrated programme between geriatrics and primary care, based on screening, comprehensive geriatric assessment and tailored intervention. We assessed its impact on physical performance and frailty.
Methods: After screening in primary care (Gerontopôle FST), subjects are referred to geriatrician and physiotherapist, who perform comprehensive geriatric assessment and implement a tailored plan, shared with primary care and based on physical activity (PA, 10 group sessions, 1hour/week of functional, endurance, flexibility and aerobics exercises), plus nutritional education and optimization of medications. We assessed the impact on physical performance in a 3-months follow-up.
Results: In the first 6 months of the program, we included 81 older community-dwellers (mean age±SD=81.8±5.4 years, 72.3% female). Despite good functional capacity (Barthel = 95, IQR = 90–100, Lawton = 6, IQR = 3–7.5, 41% living alone), 36,1% were at least "vulnerable" according to the Clinical Frailty Scale, and had impaired physical function (SPPB±SD = 6.2±2.8, gait speed ± SD = 0.77±0.15 m/s, 36,1% with falls last year). Comorbidity was low (Charlson = 2, IQR = 1–4), but 85.5% had polypharmacy (mean ± SD = 8.2±3.7 drugs). Intervention: 92,7% participated in PA, 97,6% received health education and 60,2% treatment modifications. At 3 months (N=39), adherence to PA was high (57.4% $\geq$7.5 sessions), with improved physical function: mean ± SD SPPB = 8.6±2 (mean improvement = 1.6, 95% CI: 1.6–1.8, $p<0.001$), gait speed = 0.77±0.15 m/s (mean improvement = 0.09 m/s, 95% CI: 0.09–0.11, $p<0.001$).
Conclusions: According to our results, a multidisciplinary and comprehensive geriatric intervention in frail older community-dwellers improved physical function and almost reversed frailty at 3 months, according to established physical performance scales' cut-offs.

O-027
How clinical practitioners assess frailty in their daily practice: An international survey

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Introduction: Various operational definitions have been proposed to assess the frailty condition among older individuals. Understanding the strengths and limits of such definitions is important in order to better identify frail individuals in need of specialized care and is thus crucial for the standardization of clinical practice. Our objective was to assess how practitioners measure the geriatric syndrome of frailty in their daily routine.
Methods: An online survey was sent to through the European Union Geriatric Medicine Society (EUGMS) and the European Society for Clinical and Economic Aspects of Osteoporosis, Osteoarthritis and Musculoskeletal Diseases (ESCEO).
Results: A total of 380 clinicians from 44 countries answered to the survey. Most of them were medical doctors (93%), and their primary field of practice was geriatrics (83%). Fifty-one clinicians always assessed frailty in their daily practice, and 41.5% reported to "sometimes" measure it. The most widely used tool was the gait speed test, adopted by 43.8% of the clinicians, followed by the Clinical Frailty Scale (34.3%), the SPPB test (30.2%), the frailty phenotype (26.8%) and the Frailty Index (16.8%). The functional status, the Short Physical Performance Battery, the gait speed, and the handgrip strength were also assessed by 84.8%, 74.5%, 55.9% and 40.7% of the clinicians, respectively. The cognitive domain was assessed by 90.9% of the respondents, mainly by means of the Mini Mental State Examination (76.5%).
Conclusion: A huge variety of tools is used to assess frailty in clinical practice, highlighting the absence of standardisations and guidelines.

Area: Geriatric rehabilitation

O-028
Emergency department use in post-acute rehabilitation facilities

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Introduction: Discharge of elderly patients from hospitals to skilled nursing facilities (SNF) for post-acute care is a transition when patients are at risk for adverse outcomes. Emergency department (ED) visits in this period indicate unplanned healthcare utilization and are often considered a quality measure by Centers for Medicare & Medicaid Services [1]. We sought to describe the patterns of ED use within 30 days of discharge to a SNF.
Methods: This was a retrospective analysis of 30-day ED use among patients discharged from the hospital to ten area SNFs from January 1, 2009 to June 30, 2014. Demographics and 30- day ED visits obtained from the electronic health record and administrative data were analyzed to determine the frequency and distribution of ED use after discharge to a SNF.
Results: There were 8616 discharges from Mayo Clinic Rochester hospitals to ten area SNFs served by its Division of Employee and Community Health between January 2009 and June 2014. The average age was 79 years (±9.8 years) and 62% of the patients were female. 1671 (19.4%) needed ED visits within 30 days. Of these ED visits, 40.8% occurred within 7 days and 63.2% occurred within 14 days of discharge to the SNF.
Conclusion: A substantial proportion of patients discharged to

SNFs for post-acute care needed unplanned care in EDs within 30 days. Majority of these visits occurred within the initial two weeks of hospital discharge indicating a need for better transition management in this population.

References:

[1] https://www.cms.gov/newsroom/mediareleasedatabase/press-releases/2016-press-releases-items/2016–04–27.html

Area: Frailty and sarcopenia

O-029

Comparison of the performance of different screening methods for sarcopenia within the SarcoPhAge study

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Introduction: Our aim was to compare the performance of 5 screening strategies for identifying elders at risk of sarcopenia.

Methods: We gathered cross-sectional data of elders from the SarcoPhAge (Sarcopenia and Physical Impairment with Advancing Age) study. Following screening approaches were put into perspective: the 2-stage algorithm of the EWGSOP (2010), the SARC-F questionnaire by Malmstrom and Morley (2013), the screening grid by Goodman et al. (2013), the screening test by Ishii et al. (2014) and the prediction equation by Yu et al. (2015). Performance of the screening method was described using sensitivity, specificity, PPV, NPV and AUC, according to 4 definitions of sarcopenia: Cruz-Jentoft et al. (2010); Fielding et al. (2011); Morley et al. (2011) and Studenski et al. (2014). In the SarcoPhAge study, lean mass was measured with DEXA, muscle strength with a handheld dynamometer and physical performance with the SPPB test.

Results: 306 subjects (74.8±5.9 years, 59.5% women) had complete data for statistical analyses. The prevalence of sarcopenia varied from 5.88% (Morley et al.) to 16.7% (Cruz-Jentoft et al.) depending on the definition. The best sensitivity (up to 100%) and the best NPV (up to 99.1%) has been shown by the screening test of Ishii et al., regardless of the definition tested. The highest AUC (0.841 to 0.891) has also been demonstrated by the tool of Ishii et al. The most specific tool was the 2-stage algorithm of the EWGSOP (88.5% to 91.1%). All NPV were superior to 87.0%, whatever the screening tool used. However, all PPV were below 51.0%.

Conclusions: The screening test of Ishii et al. showed better properties in terms of distinguish those at risk of sarcopenia from those who were not at risk. All screening tools identify with a high degree of reliability individuals who do not suffer from sarcopenia.

Area: Geriatric rehabilitation

O-030

Factors associated with Activity of Daily Living (ADL) decrease in geriatric rehabilitation unit

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Introduction: The first aim of geriatric rehabilitation units is to restore functional independence to elderly patients in terms of Activities of Daily Living (ADL). We know that some patients will suffer ADL decrease in this unit, however factors associated with functional decline are debated.

Objective: To assess frequency of functional decline during rehabilitation unit stay and factors associated with ADL decrease.

Methods: Between July 2006 and December 2008, 252 consecutive patients aged ≥75 years admitted in geriatric rehabilitation unit in a university hospital in Créteil, France were included in this prospective cohort study. During follow up, Hospital Acquired Infection (HAI) and ADL at rehabilitation unit discharge were recorded. Multivariable logistic regression and mediation analyses were used to identify factors associated with ADL decrease.

Results: Among 165 patients with baseline and discharge ADL available, median age was 85 IQR [81–90] years, Cumulative Illness Rating Scale for Geriatrics (CIRS-G) 11 [9–13] baseline ADL 7 [4–10]). Thirty patients (18.2%) suffered ADL decrease and 24 (14.5%) experienced pulmonary HAI. Factors independently associated with ADL decrease were albumin<35g/l (p=0.02), CIRS G index (p=0.02) or CIRS G ≥2 for Respiratory (p=0.03) (CIRSG-R) and psychiatric diseases (p=0.02) (CIRSG-P). Pulmonary HAI could be a mediator in the association between CIRSG-R and ADL decrease (p for mediation test = 0.07).

Conclusion: Baseline elderly characteristics such as comorbidities are associated with ADL decrease in geriatric rehabilitation unit. Some mediators such as pulmonary HAI could take part in this association, thus, improving prevention of HAI could enhance the effects of a stay in geriatric rehabilitation unit.

Area: Comorbidity and multimorbidity

O-031

Activities of daily living at admission to acute geriatric wards as predictor of mortality: A Danish nationwide population-based cohort study

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Introduction: The Barthel Index (BI) is used to measure geriatric patients' activities of daily living. Our study examines whether routine BI assessment at the time of hospital admission predicts mortality.

Materials and methods: This nationwide population-based cohort study included all patients aged ≥65 years admitted to a Danish geriatric ward during 2005–2014. BI-100 was assessed at admission and data linked at the individual level to Danish national health registers. BI-score was reported numeric and categorized in four standard sub-categories. All individuals were followed-up until death or the end of study (December 31st 2015). Multivariate Cox regression was used to analyze associations adjusting for relevant confounders (age, admission year, civil status, BMI, Charlson Comorbidity Index, polypharmacy, hospital admissions).

Results: Totally 74,603 patients were included. Women (63%) were significantly older with higher BI than men ((median [IQR]) age 84 [79–89] vs. 81 [76–86] years, and BI score 55 [(30–77] vs. 52 [26–77], respectively). Median survival (years, 95% CI) according to BI sub-category was 4.9 (4.7–5.0) and 3.6 (3.4–3.7) in BI=80–100, 3.5 (3.4–3.6) and 2.3 (2.2–2.4) in BI=50–79, 2.7 (2.6–2.8) and 1.7 (1.6–1.8) in BI=25–49, and 1.3 (1.2–1.4) and 0.9 (0.8–0.9) in BI=0–24,

women and men, respectively. Adjusted hazard ratio for mortality (95% CI) for BI=0–24 was 2.42 (2.32–2.52) in women and 2.07 (1.97–2.18) in men (reference BI=80–100). The adjusted model with BI as a continuous variable revealed a significantly increased mortality risk by 1.1% in women and 0.9% in men for each single point scored below 100 on the BI.
Conclusion: BI at hospital admission is a strong and independent predictor of mortality in geriatric patients.

O-032
The impact of the community Transitional Care (TC) program on hospital utilisation, mortality and cost

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Introduction: Aging population is a growing challenge in Asia and Singapore. Older adults with multiple comorbidities and disability have high hospital utilisation, and are vulnerable to poor outcomes during care transition from hospital to home. Addressing post-hospitalisation needs of these complex and frail older adults in the community is vital in improving care. Objectives: To evaluate the impact of a 3-month post-hospitalisation nurse-led Transitional Care (TC) on hospital utilisation, mortality and cost among patients with complex medical, social and functional needs in northern Singapore.
Methods: We analysed a retrospective cohort of patients eligible for TC between April 2012 and March 2014 using hospital administrative data. Outcome measures were number of hospitalisations, emergency department visits, hospital length of stay, cost, rehospitalisation and mortality at 30, 90 and 180 days post index hospitalisation discharge. A quasi-experimental study with difference-in-difference analyses was done to compare outcomes between eligible patients who accepted TC (intervention) and those who rejected (control).
Results: Mean age was 81.5±10.5; and 64.9% were female. Participants had mean disability and disease severity index of 2.2±1.7 Activities of Daily Living (ADL) limitation and Charlson Comorbidity Index (CCI) of 6.2±2.3, respectively. At 180 days, intervention group had 4.2 less hospital bed-days/patient (95% CI: −8.25, −0.14; $p<0.05$) and lower cost (mean savings of €836/patient*). They tend to have lower re-admission with similar condition that precipitated the index hospitalisation (AOR=0.82; 95% CI: 0.44–1.54) and mortality (AOR=0.69; 95% CI: 0.45–1.07) during the follow-up period, compared to controls; although these were not statistically significant.
Conclusion: TC is effective in reducing hospital bed-days and cost among older patients with complex care needs.
*Converted using yearly exchange rate from Singapore Dollar to Euro as of 31st December 2014.

O-033
The effect of 2 year intervention of diet, physical exercise, cognitive training and monitoring of vascular risk versus control on chronic morbidity – the FINGER trial

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Objective: We evaluated the effect of a multidomain intervention on the development of chronic diseases in older adults.
Methods: Multicenter, randomized clinical trial of 1260 persons aged 60–77 years enrolled in the Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER). Seventeen diseases were assessed at baseline and at 24-month follow-up. Complete-case analyses were performed including 532 (84.3% of the original sample) participants in the intervention group and 527 (83.8%) in the control group. The two-year multidomain intervention consisted of: nutritional guidance; exercise; cognitive training and social activity; and management of metabolic and vascular risk factors.
Results: After 24-month follow-up the average number of new chronic diseases was 0.47 (SD 0.7) in the intervention group and 0.58 (SD 0.8) in the control group ($p\leq0.01$). After adjustment for age, sex, education, current smoking, alcohol intake, baseline number of chronic diseases, being in the intervention group showed a HR ranging from 0.81 (0.66–0.98) for developing 1+ new chronic diseases to 0.39 (0.17–0.88) for developing 3+ new chronic diseases compared to the control group. The absolute risk reduction of developing 3+ new chronic diseases was 2.1 per cent, meaning that 2 out of 100 have been prevented related to the intervention. After stratification for the presence at baseline of zero or 1+ chronic diseases, findings were significant only in those already affected by baseline morbidity.
Conclusion: A multidomain intervention could reduce the risk of chronic diseases in older persons, especially in those already affected by morbidity.

O-034

HOMR model accurately predicts 1-year mortality in older hospitalized patients

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An important principle in caring for older people with frailty and multi-morbidity is to align interventions and treatments to the patient's condition, preferences, and prognosis. Making accurate prognostic assessments is a major challenge however. Recently, the Hospital patient One-year Mortality Risk (HOMR) model was shown to accurately predict risk of death 1 year after hospital admission. This model was validated in a large cohort of adult hospitalized patients in North America and significantly exceeds the predictive performance of other published validated prognostic tools. External independent validation has not been performed to date. In addition, the HOMR model has not been tested in an exclusively older patient cohort. We applied the HOMR model to patients aged 65 and over who were discharged from the geriatric service in our institution from January 1st 2013 to March 6th 2015. Patients who died during the index hospital admission were excluded. Overall 1409 patients were included in the analysis. Of these, 476 (33.4%) were frail. In total, 259 (18.4%) died within one year of hospitalization. The HOMR model was very discriminative with an area under the receiver operating characteristic curve (c-statistic) of 0.79 (95% confidence interval of 0.754 to 0.82). In conclusion, the HOMR model is robust and accurately predicts risk of death in older hospitalized patients and could potentially motivate discussions about values, priorities and goals of care between physicians and their patients. Its performance compares favorably to other published prognostic models.

O-035

Genetic and cardiovascular risk factors in relation to physical limitation in older adults – a population-based study

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Introduction: Behavioral (i.e., smoking, physical inactivity, heavy alcohol consumption) and metabolic (e.g., hypertension, diabetes) cardiovascular risk factors (CRFs) may increase the risk of physical limitation, however, the role of APOE ε4 on potentially heightening this risk remains unknown. The association between APOE and its interactions with CRFs on limitation in balance, walking speed, chair stand, and their composite was examined.
Methods: Data were from the longitudinal Swedish National study on Aging and Care in Kungsholmen, including adults aged 60+ at baseline (2001–2004) without cardiovascular disease (CVD), grouped into 4 limitation-free sub-populations: balance (n=1542), walking speed (n=1748), chair stand (n=1811), and composite (n=1401). Limitation was defined as balance stand <5 seconds, walking speed <0.8m/s, unable to stand from a chair, and limitation in at least 1 test. Cox proportional models, over 9 years, was utilized, with age as time-scale. Covariates included sex, mutual CRFs, prevalent and incident cognitive impairment, and incident CVDs.
Results: During follow-up 268 (22%), 263 (19%), 323 (22%), and 357 (30%) persons developed limitation in balance, walking speed, chair stand, and composite, respectively. APOE was significantly associated with limitation in chair stand (HR 1.29, 95% CI: 1.00–1.67) and composite (HR 1.28, 95% CI: 1.01–1.62), adjusting for all covariates. No significant interactions were found between individual CRFs and APOE. The risk of limitation for chair stand (HR 1.89, 95% CI: 1.23–2.89) and composite (HR 1.75, 95% CI: 1.19–2.57) was highest for the combination of aggregated behavioral CRFs and APOE.
Conclusions: Presence of ε4 allele may modify CRFs conferring a substantial risk of limitation.

O-036

The assessment of functional status and health-related quality of life in elderly patients with peripheral artery disease

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Introduction: The objective of the study was the assessment of the functional status and quality of life of the elderly patients with symptomatic peripheral arterial disease (PAD) admitted to the angiology department.
Methods: Results from basic and instrumental activities of daily living scales (bADL, IADL) and Quality of Life (EQ-5D-3L) were compared in PAD patients of different groups of ages: 55–64 years – Group I, 65–74 years – Group II and 75 years and over – Group III. The degree of PAD was evaluated using Rutherford's classification.
Results: The study enrolled 151 patients (I – 54 subjects, mean age 60.4±2.5 years, II – 54, 69±3.1, III – 43, 79.7±3.6), 66.9% were male gender. The degree of PAD was comparable in all groups. Patients had similar score in bADL scale, but score of IADL significantly decreased with age (22.5±3 vs. 21.5±4.5 vs. 20.6±3.4 points, p=0.001). Patients lost their independence most frequently in transportation. Index of EQ-5D-3L significantly decreased with age, (0.712±0.23 vs. 0.676±0.26 vs. 0.594±0.29, p=0.04). In the EQ-5D-3L questionnaire, the groups did not differ significantly in frequency of reported problems with movement, pain, anxiety and/or depression. However, older patients reported more difficulty in self-care (13.0 vs. 14.8 vs. 39.5, p=0.008).
Conclusions: Age may significantly influence on the quality of life and the loss of independence in instrumental activities daily living in patients with PAD.

O-037

What do nursing home patients with mental-physical multimorbidity need and who knows best?

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Introduction: Aging societies will bring an increase in the number of long-term care patients with mental-physical multimorbidity (MPM). To optimize care for patients with MPM, it is important to know their care needs, since unmet needs lower quality of life. To date, knowledge about (un)met care needs of these patients is limited. Therefore, the aim of this study was to explore their (un)met care needs and determinants of unmet needs.
Methods: Cross-sectional cohort study among 141 patients with MPM without dementia living in 17 geronto-psychiatric nursing home units across the Netherlands. Data collection consisted of chart review and semi-structured interviews. The Camberwell Assessment of Need for the Elderly (CANE) was used to rate (un)met care needs from patients' and staff's perceptions. Descriptive analyses and multivariate regression analyses were conducted.
Results: Patients rated a lower total number of needs, but a higher number of unmet needs than the staff. The highest numbers of met needs were reported in the physical and environmental domains. Most unmet needs were found in the social domain according to the

patients and in the psychological domain as reported by the staff. Disagreement between patient and staff regarding unmet needs was most common in the areas accommodation, company, and daytime activities. Depression, anxiety and less care dependency were the most important determinants of unmet needs.
Conclusions: Systematic assessment of care needs showed discrepancies between the perspectives of patient and staff. This should be the starting point of the dialogue between them about needs and expectations regarding care. This dialogue will lead towards the most optimal individually tailored care plan.

O-038
Health inequalities during dementia: A nation-wide 3-year longitudinal study of diabetes monitoring and complications among older adults

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Introduction: The association of Alzheimer's Disease and Related Syndromes (ADRS) and diabetes mellitus is increasing. Based on a nationwide healthcare reimbursement database, we compared diabetes care and the incidence of diabetes-related hospitalizations between patients with or without incident ADRS.
Methods: Reimbursement data from the French insurance health system database was used to identify subjects aged 65 years or more with incident ADRS between 2010 and 2012. Each subject was matched to a pair free of ADRS. 87 816 subjects with known diabetes were included. Diabetes monitoring and complications (HbA1c, lipid profile, microalbuminuria tests; eye examination; diabetes-related hospitalization) were studied between the year preceding ADRS identification (Y-1) and the subsequent two years (Y0 and Y1). We calculated Standardized Incidences Ratios (SIR) between ADRS and non ADRS group.
Results: HbA1c test was less frequent in ADRS group: 82.6% vs 88.5% had at least one HbA1c testing during Y-1 (SIR=0.94, 95% CI 0.93–0.95), 73.4% vs 89.0% during Y0 (SIR=0.83, 95% CI 0.82–0.84), and 75.4% vs 89.3% during Y1 (SIR=0.85, 95% CI 0.83–0.86). Subjects with ADRS were at higher risk of diabetes-related hospitalizations (SIR Y-1: 2.04, Y0: 3.14, Y1: 1.67), hospitalizations for diabetic coma (SIR Y-1: 3.84, Y0: 9.30, Y1: 3.06) and hypoglycemia (SIR Y-1: 4.20, Y0: 5.25, Y1: 2.27).
Conclusions: Incident ADRS is associated with a lower receipt of diabetes monitoring and an increased risk of diabetes complications. Further investigations of the mechanisms underlying these results are required, in order to propose actions limiting such health inequalities.

Area: Comprehensive geriatric assessment

O-039
At-home orthostatic hypotension among non-demented elderly subjects: Prevalence and determinants by self-measured home blood pressure monitoring

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Objective: To evaluate prevalence and determinants of orthostatic hypotension detected by self-measured home blood pressure monitoring (SMOH) among non-demented elderly subjects.
Patients and methods: Subjects attending a memory clinic, comprehensively evaluated in day care hospital (including detection of OH), 65 years or older, able to stand for ≥3 minutes and with Mini Mental State Examination >25/30were consecutively included In this observational study, OH was defined by a fall of at least 20mmHg in systolic blood pressure (BP) and/or at least 10mmHg in diastolic blood pressure. Subjects were instructed on SMOH detection protocol and lent validated devices. BP was to be measured three consecutive times, after 10 minutes of seated rest with readings taken one minute apart and after one and three minutes of standing, in the morning and in the evening for three consecutive days and BP results written down on a standardized data sheet. OH prevalence was evaluated according to OH occurrence at 3 minutes compared with the last BP in sitting position. Successful SMOH was defined by the ability to properly fill in at least four BP measurements in the data sheet.
Results: Mean age of the 151 included patients was 75.7 (8.4) years old (60.3% of women). One hundred twenty seven patients (84%) provided SMOH. There was no significant difference between the group "success" and "failure". Over the 3 days, 40.9% of patients had at least 1 occurrence of SMOH. Patients had 1, 2, 3 and 4 SMOH occurences in 26.8%, 7.9%, 4.7% and 1.6% respectively. SMOH determinants were low albumin level (p=0.03), high depression risk according to the Geriatric Depression Scale (p=0.03), benzodiazepine use (p=0.004) and ≥4 medications (p=0.04). In multivariate ordinal logistic regression SMOH was associated with benzodiazepine use (p=0.03).
Conclusion: SMOH appeared feasible to detect OH among subjects with preserved cognitive function. OH's prevalence increases with repetition of measurements. The determinants found are in accordance with the literature review. No association was disclosed between hypertension and antihypertensive treatments numbers probably due to a selection bias Predicative value of this SMOH for unfavorable outcome ought to be in investigated in a prospective study.

O-040
Qualitative gait abnormalities of neurologic type, clinical characteristics and disability in older community-dwellers without neurological diseases

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Introduction: Gait abnormalities are common even in well-functioning older adults, and are associated with falls, dementia and death. We evaluated the cross-sectional association of neurologic-type qualitative gait abnormalities (NGA) with clinical characteristics and disability in older community-dwellers.
Methods: The Healthy Brain Project enrolled a sub-sample of older community-dwellers of the Health ABC study without previous psychological or neurological illnesses. We detected NGA using standardized and validated readings of video-records (adapted from Verghese et al). Non-neurological abnormalities were not considered NGA. We also assessed demographics, vascular risk factors and comorbidities, cognitive function (3MSE and Digit-Symbol Substitution Test), brain MRI (cerebral volumes and connectivity), and disability in seven activities of daily living (ADL).
Results: Of 177 participants (mean age = 82, IQR = 4 years, 55% women, 58% Caucasian), 49 (27,7%) had NGA. In a multivariable logistic regression model, adjusted for different covariates, diabetes was associated with prevalent NGA (OR=3.24, 95% CI: 1.38–7.59),

whereas higher physical activity (OR=0.89, 95% CI: 0.80–0.99) and gait speed (OR=0.04, 95% CI: 0.005–0.27) were protective. NGAs were associated with disability in at least 1 ADL, adjusting for confounders (OR=3.95, 95% CI: 1.64–9.52), but this association was attenuated after adjusting for gait speed.
Conclusions: In our sample of community-dwelling older adults without clinical neurological diseases, NGA, assessed through standard visual classification, were associated with risk factors, such as diabetes and physical activity, which might have a "systemic" action (on cardiovascular, central and peripheral nervous systems, etc.). Gait speed could mediate their impact on disability. These results, if confirmed by longitudinal studies, might add information for preventing and managing mobility disability.

O-041
Postoperative delirium after aortic valve replacement: incidence, risk factors and cognitive outcomes

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Introduction: Older patients undergoing transcatheter (TAVR) or surgical (SAVR) aortic valve replacement can develop postoperative delirium (POD). This prospective study aims to determine: 1) POD incidence; 2) patients' characteristics associated with POD; 3) the relationship between POD and cognition at 3-month follow-up.
Methods: Patients aged = 70 years who underwent TAVR or SAVR in an academic hospital were assessed before and 3 months after the intervention. Data were collected on health, functional status (including instrumental (IADL) activities of daily living), mood, and cognition (MMSE). POD was assessed using the Confusion Assessment Method (CAM) at postoperative days 1, 2, 3, and 7.
Results: Among patients (N=84, mean age 81.5±6.5 years, 42.9% women) who underwent TAVR (N=57, 67.9%) or SAVR (N=27, 32.1%), POD incidence was 19.1% (N=16), not different in TAVR and SAVR (19.3% vs 18.5% respectively, P=0.932). Patients with POD had significantly baseline lower IADL (6.3±1.8 vs 7.2±1.2, P=0.034), lower MMSE (24.4±5.7 vs 27.4±2.4, P=0.017), and higher Society of Thoracic Surgeons (STS) score (6.2±5.4 vs 4.5±4.7, P=0.035). Only MMSE score remained associated with POD (AdjOR 0.79; 95% CI: 0.68–0.91, P=0.001) when adjusting for STS score. At 3-month (N=63), patients with POD (N=12, 19.0%) tended to have higher odds of cognitive impairment (AdjOR 4.61; 95% CI:0.87–24.36, P=0.072) once adjusting for baseline cognition.
Conclusions: About one out of five older patient had POD after aortic valve replacement. Worse baseline cognition was most strongly associated with POD incidence. Even when controlling for baseline cognitive performance, POD tended to further increase the odds of cognitive impairment at 3-month.

Area: Psychiatric symptoms and illnesses

O-042
Restraint use in older adults in home care: a systematic review

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Objectives: To get insight into restraint use in older adults receiving home care and, more specifically, into the definition, prevalence and types of restraint, as well as the reasons for restraint use and the people involved in the decision-making process.
Design: Systematic review, registered in PROSPERO (CRD42016036745).
Data sources: Four databases (i.e. Pubmed, CINAHL, Embase, Cochrane Library) were systematically searched from inception to end of April 2017.
Review methods: The study encompassed all empirical research on restraint use in older adults receiving home care that reported definitions of restraint, prevalence of use, types of restraint, reasons for use or the people involved. We considered publications written in English, French, Dutch and German. One reviewer performed the search and made the initial selection based on titles and abstracts. The final selection was made by two reviewers working independently; they also assessed study quality. We used an integrated design to synthesize the findings.
Results: Eight studies were reviewed (one qualitative, seven quantitative) ranging in quality from moderate to high. The review indicated there was no single, clear definition of restraint. The prevalence of restraint use ranged from 5% to 24.7%, with various types of restraint being used. Families played an important role in the decision-making process and application of restraints; general practitioners were less involved. Specific reasons, other than safety for using restraints in home care were noted (e.g. delay to nursing home admission; to provide respite for an informal caregiver).
Conclusions: Restraint use is common in home care and is influenced by the specifics of the home care setting. This implies that the wealth of knowledge about restraint use in residential settings cannot simply be transferred to the home care setting and so further research is urgently needed.

O-043
Risk of head and traumatic brain injuries associated with antidepressant use among community-dwelling persons with Alzheimer's disease, a nationwide matched cohort study

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Background: Antidepressant use has been associated with an increased risk of falls and fractures among older persons. However, risk of head and brain injuries has not been investigated.
Objectives: To investigate the risk of head injuries and traumatic brain injuries (TBI) associated with antidepressant use among persons with and without Alzheimer's disease (AD).
Methods: A matched cohort study compared new antidepressant users (N=10,910) with two nonusers (N=21,820) within the MEDALZ study cohort which includes all community-dwelling persons newly diagnosed with AD during 2005–2011 in Finland. Incident users were identified based on Prescription register data with a one-year washout period for antidepressant use. Nonusers were matched with users based on age, gender and time since AD diagnoses. Head injuries and TBIs were identified from Hospital Discharge and Causes of Death registers. Propensity score adjusted Cox proportional hazard models were utilized. Sensitivity analyses with case-crossover design were conducted.
Results: Antidepressant use was associated with an increased risk of head injuries (adjusted HR 1.35, 95% CI 1.20–1.52) and TBIs (HR 1.26, 95% CI 1.06–1.50). The risk was highest during the first 30 days of use (head injuries HR 1.71, 95% CI 1.10–2.66, TBIs HR 2.06, 95% CI 1.12–3.82) and remained on elevated level for head injuries for over 2 years of use. In case-crossover analyses, antidepressant use was consistently associated with higher risk of head injuries.
Conclusions: Antidepressant use was associated with an increased risk of the most severe outcomes, head and brain injuries in persons with Alzheimer's disease.

Area: Comprehensive geriatric assessment

O-044

Cancer related fatigue (CRF) before oncologic treatments: Fatigue related factors and analyses of early death associated to fatigue — AST-ELD study, a prospective cohort study with 979 elderly cancer patients

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Introduction: CRF is a common symptom, misunderstood and under-manage which can greatly affect the quality of life (QoL).The aims of this study were: Identify potential reversible factors associated with fatigue and analyze the relation between fatigue and early death in older patients.
Methods: This is a multicentric, prospective cohort study approved by an ethics committee. Patients over 70y have been enrolled. At the baseline and before the specific treatments we collected: MMSE, MNA,ADL, IADL, CIRSg, Gait speed, Charlson, G8, PS, Balducci score, fatigue and intensity (QLQC30), need to rest and intensity, medication review, Haemoglobin, clearance of creatinine,stage and cancers types; presence of: weakness, sleep disorders, anxiety, polypharmacy, isolation, confined patients. Events (deaths) have been collected during the follow up of 100 days.
Results: 979 patients were enrolled with median age:of 82y [70–100]. Fatigue was observed in 69% (In 21% and 25% respectively mild and high intensity). Patients who have expressed fatigue at the baseline before treatments were significantly more linked to death HR 1.9 [1.3–2.7]. Factors significantly associated with fatigue in multivariate analyses were polypharmacy >5 OR: 1.6 [1.1–2.1], anxiety OR 2.3 [1.7–3.2],GDS >5 OR: 2.2 [1.5–3.3], PS >2 OR 1.6 [1.1–2.5], lung cancers OR 4.1 [1.3–11.9], Hb <10g/dl OR 1.8 [1.2–2.8],homebound OR 1.5 [1.1–2.5], MNA <17 OR 1.8 [1.1–3.2] and MNA≤23.5 and >17 OR1.4 [1.1–2.1]. Among patients presenting fatigue at baseline (n=681) factors linked to death in multivariate analyses were: MNA <17 OR 12.1 [4.1–35.1] and MNA≤23.5 and >17 OR 6.7 [2.3–19.5], MMSE <24 OR1.5 [1.1–2.4],male gender OR1.8 [1.1–2.7], stage 4 OR2.7 [1.7–4.1], gait speed <0,8m/s OR3.1 [1.9–5.3] and weakness OR 2.5 [1.2–4.9].
Conclusions: Some of these factors are potentially reversible and can lead to guided interventions to improve QoL and possibly survival.The originality of this study is the relation between fatigue and geriatric assessment, biological factors, and early survival in a huge cohort of a real geriatric population.

Area: Pharmacology

O-045

Differences between drug related problems in aged and middle-aged patients: analysis of pharmacists medication order review during 8 years

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Introduction: Involvement of clinical pharmacists to prevent Drugs Related Problems (DRP) through pharmaceutical interventions (PI) is supported by literature, underlying positive patient outcomes and improvement of care. Identifying specific DRPs and PIs occurring in aged patients compared to middle-aged patients should help to better manage at-risk patients and prioritize PIs. This study aimed to analyses differences in DRPs during daily medication order review between patients aged ≥75 and patients aged 18–75.
Methods: A retrospective study on DRPs documented at the French university hospital of Lyon - 8 hospitals - into a dedicated module of the French Society of Clinical Pharmacy website (Act-IP®), was conducted from beginning of 2008 to end of 2015.
Results: A total of 56241 DRPs were registered: 19071 among aged patient and 37170 among patient aged 18–75. Compared to middle-aged patients, aged patients were, in particular, significantly associated with 1) interventions: Non Conformity of the drug choice to guidelines (OR=1.693, 95% CI [1.520–1.887]), adverse drug reaction (OR=1.532, 95% CI [1.408–1.667]), 2) drug class: Cardiac therapy (OR=5.257, 95% CI [3.404–8.119]), Antithrombotic agents (OR=3.059, 95% CI [2.003–4.671]). A supratherapeutic dosage of benzodiazepines (4.03%) was the most frequent DRP in aged people compared to middle-aged.
Conclusion: The medication review by pharmacists allows detecting DRPs effectively. This study highlights some directions that could be taken to improve prevention of DRP among aged patients: specific training to medical team, targeted information on safe drug use and a closer collaboration between physicians and pharmacists.

O-046

Trend analysis: prescription changes during geriatric care episodes

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Background: The number of prescribed drugs among old people has been rising in recent decades. With increasing age and many medications, risk of complications and drug prescription complexity increases. Many changes in prescriptions could be a factor that improves treatment quality. Aim: to investigate drug-prescription trends and factors that contribute to prescription changes. Specific objectives were to find out if high numbers of prescription changes are significantly correlated with age, gender, comorbidity, care-episode length, and number of drugs.
Methods: Data were extracted from geriatric clinic records in Stockholm during 2005, 2010, and 2015. Indicators for good drug therapy were used to assess the effects of prescription changes on quality, using an inappropriate drug use index, IDU index. Data were analyzed with Student's t-test; PR test, Wilcoxon's rank sum test, and linear regression.
Results: The patients had more comorbidities and more drugs, but shorter hospital stays and significantly fewer prescription changes in 2015 compared to 2005. There were significant associations between care-episode length and the prevalence of prescription changes. Our model showed that the prescription changes decreased with 8% for each day of shortening of the care episode. The number of prescription changes was negatively correlated to the IDU index.
Conclusions: The study showed that more prescription changes were associated with longer care episodes and improved drug prescribing quality as per the IDU index. Given prescription changes are regarded as a quality factor in geriatric care, quality may have decreased along with reduction of care-episode lengths, during the 2005–2015 period.

O-047
Discontinuing Inappropriate Medication In Nursing Home Residents (DIM-NHR study): A cluster randomized controlled trial

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Introduction: Inappropriate prescribing is a prevalent problem in nursing home residents that is associated with cognitive and physical impairment. Few interventions have been shown to reduce inappropriate prescribing. The aim was therefore to examine successful discontinuation of inappropriate medication.
Methods: A cluster randomized controlled trial was conducted. Fifty-nine wards were randomly assigned to the intervention or to "care as usual". The intervention was a Multidisciplinary Multistep Medication Review (3MR), consisting of an assessment of the patient perspective, a medical history, a critical appraisal of medication, a meeting between the elderly care physician and a pharmacist, and the execution of medication changes. The primary outcome was successful discontinuation of $\geq$1 inappropriate drug(s), without relapse or severe withdrawal symptoms. Secondary outcomes included neuropsychiatric symptoms, cognitive function and quality of life. Nursing home residents with a life expectancy of >4 weeks who did not refuse treatment with medication were included. Data were collected at baseline and at an average follow-up of 144 days.
Results: A total of 426 nursing home residents participated (intervention group: N=233 and control group: N=193). Generalized linear mixed models (logit link function) showed that for 91 (39.1%) of the residents in the intervention group $\geq$1 inappropriate drugs could be successfully discontinued vs. 57 (29.5%) of residents in the control group (adjusted odds-ratio: 1.57, 95% CI: 1.03 to 2.39). There was no deterioration on secondary outcomes.
Conclusions: The 3MR is effective in discontinuing inappropriate medication in nursing home residents whilst probably not compromising their wellbeing.

O-048
Acetyl-L-carnitine supplementation and the treatment for depressive symptoms: A systematic review and meta-analysis

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Introduction: Deficiency of acetyl-L-carnitine (ALC) appears to play a role in the risk of developing depression, but the data regarding its supplementation in humans are limited. We thus conducted a systematic review and meta-analysis investigating the effect of ALC on depressive symptoms across randomized controlled trials (RCTs).
Methods: A literature search in major databases, without language restriction, was undertaken from inception until 30 December 2016. Eligible studies were RCTs of ALC alone or in combination with antidepressant medications with a control group taking placebo/no intervention or antidepressants. Standardized mean differences (SMD) and 95% confidence intervals (CIs) were used for summarizing outcomes with a random-effect model.
Results: Twelve RCTs (11 of which were ALC monotherapy) with a total of 791 participants (mean age 54 years, % females = 65%), were included. Pooled data across nine RCTs (231 treated with ALC vs. 216 treated with placebo and 20 no intervention) showed that ALC significantly reduces depressive symptoms (SMD=−1.10; 95% CI: −1.65 to −3.99; I2=86%). In three RCTs comparing ALC vs. antidepressants (162 for each group), ALC demonstrated similar effectiveness compared toestablished antidepressants in reducing depressive symptoms (SMD=0.06; 95% CI: −0.22 to 0.34; p=0.69; I2=31%). In these latter RCTs, the incidence of side effects was significantly lower in ALCthan the antidepressant group.
Conclusions: ALC supplementation significantly decreases depressive symptoms compared to placebo/no intervention, whilst offering a comparable effect to established anti-depressant agents with fewer side effects. Future large scale trials are required to confirm/refute these findings.

O-049
Concurrent use of alcohol interactive medications and alcohol in older adults: A systematic review of prevalence and associated adverse outcomes

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Objectives: The quantity of alcohol consumed declines with age however, older adults drink more frequently. [1] Alcohol interactive (AI) medicines have the potential to interact with alcohol. [2] The aim of this review was to investigate the prevalence of concurrent alcohol and AI medicines use among older adults and associated adverse outcomes.
Methods: We conducted a search of PubMed, Embase, Scopus and Web of Science databases from January 1990-June 2016. Included studies reported: the quantity/frequency of alcohol consumption and concomitant use of alcohol & AI medicines in the same or overlapping recall periods in older adults. Data was extracted and the risk of bias was evaluated, using an adapted form of the Newcastle Ottawa cohort scale (NOS).
Results: From 546 records identified, 20 studies were included in this review. Nine reported a wide range of AI medicines; three investigated any medicine use and eight focused on psychotropics. Alcohol consumption was more prevalent among older men; while psychotropic use was higher among older women. Concurrent alcohol consumption with a wide range of AI medicines ranged between 18–39%, whilst concurrent use of psychotropics and alcohol ranged from 2–15.7%. Four studies reported the occurrence of adverse outcomes, with mixed evidence for falls and adverse outcomes.
Conclusions: This review highlights the prevalence of concurrent use of alcohol and AI medicines among older adults. With considerable heterogeneity in the inclusion of AI medicines, research is required to identify a comprehensive list of AI medicines in the future. Further research is required to investigate adverse outcomes due to concurrent use among older adults.
References:

[1] Britton A, Ben-Shlomo Y, Benzeval M, Kuh D, Bell S. Life course trajectories of alcohol consumption in the United Kingdom using longitudinal data from nine cohort studies. BMC Med. 2015;13:47.
[2] Weathermon R, Crabb DW. Alcohol and medication interactions. Alcohol Res Health. 1999;23(1):40–54.

O-050
Association between psychotropic and cardiovascular iatrogenic alerts and risk of hospitalizations in elderly people treated for dementia

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Introduction: Elderly people are at risk of repeated hospitalizations, some being drug-related and preventable. In 2011, French experts selected 5 "iatrogenic alerts" (IAs), from the existing sets of explicit criteria, to assess the appropriateness of medication in elderly patients. Our objective was to examine the association between hospitalizations and IAs in elderly patients treated for dementia.
Methods: A two-year longitudinal national database study using an approach similar to the "self-controlled case series" between January 1, 2011 and December 31, 2012 was set up to analyze data on drug prescriptions and hospital stays. IAs were defined as: (1) long half-life benzodiazepine; (2) antipsychotic drug; (3) co-prescription of 3 psychotropic drugs or more, (4) co-prescription of 2 diuretics or more and (5) co-prescription of 4 antihypertensive drugs or more. Data were obtained from the matching of two French National Health Insurance Databases. All affiliates, aged 75 or more, in treatment for dementia, still alive on January 1st, 2011 were included. The analysis was performed over a period of 6 months.
Results: 10,754 patients were included. During the IA periods, compared to others periods, hospitalization incidence increased by (0.23/year vs. 0.36/year) and the number of hospitalizations doubled (Proportional Fold Change PFC=1.9, 95% CI [1.8, 2.1]). We calculated that 22% (95% CI [20%, 23%]) of all hospitalizations were associated with IAs, 80% of which were due to psychotropic IAs.
Conclusion: IAs seem to be a simple and clinically relevant tool that enables the prescribing physicians to assess the appropriateness of the prescription in elderly patients treated for dementia.

O-051
The change in psychotropic drug use in Norwegian nursing homes (between 2004 and 2011)

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Objectives: We aimed to assess whether there were any changes in the use of psychotropic drugs in Norwegian nursing homes between 2004 and 2011. Also, we investigated whether the predictors of use of specific psychotropic drug groups have changed.
Methods: We conducted a secondary analysis of two cohort studies of two Norwegian nursing home samples (2004/05 and 2010/11). Multivariate models were applied.
Results: We found a significant decrease in the prescription of antipsychotic drugs between 2004 and 2011 (0.63 OR, 95% CI: 0.49–0.82, $p<0.001$) even after adjusting for relevant demographic and clinical variables. There are only minor changes for the other psychotropic drugs. We found that (1) the use of specific psychotropic drug groups as well as the number of psychotropic drugs used were associated with more affective symptoms and (2) the use of specific psychotropic drug groups as well as the number of psychotropic drugs used were associated with lower scores on the Physical Self-Maintenance scale.
Conclusions: This is the first study to show a robust decrease in antipsychotic drug use in nursing home patients with dementia unrelated to possible changes in case mix. The change might be explained by treatment recommendations against its use except in the most severe conditions of aggression or psychosis. Our findings indicate that it takes several years to implement scientific knowledge in clinical practice in nursing homes.

O-052
Preventability of serious adverse drug reactions in the elderly: analysis of the spontaneous reports to a French pharmacovigilance center over 10 years

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Introduction: Adverse drug reactions (ADR) are a major health issue, especially in the elderly, due to frailty and polymorbidity requiring polypharmacy. The risk of ADR and ADR-related hospitalizations increases with age. One to 2 thirds of ADR are predictable and preventable.The aim of this study was to identify characteristics of preventable and non-preventable ADR in the elderly.
Material and methods: We performed a retrospective analysis of serious ADR that occurred in the elderly over 75 years and were spontaneously reported to the Grenoble pharmacovigilance center from 2005 to 2015.
Results: Overall, 966 notifications of serious ADR were analyzed. Patients were 82.1±5.2 years old and 56.5% were women. Among these ADR, 27.7% (n=268) were preventable and 319 errors occurred, mostly during prescription (68.7%) and drug dispensation (29.9%). Patients suffering from preventable ADR were significantly older than those with no preventable ADR (p=0.008).Vascular disorders (ie. hemorrhages and hematomas), renal disorders (ie. acute kidney injury) and disorders of hemostasis were significantly more frequent in case of preventable ADR. Preventable ADR were significantly more related to antithrombotics, drugs acting on the renin-angiotensin system (RAS), analgesics, antigout and anti-inflammatory. A drug-drug interaction was much more frequent in preventable ADR (21.6%) than in not preventable ADR (1.9%).
Discussion/Conclusion: A quarter of ADR were preventable in the elderly, as it has been previously reported. Precautions have to focus on prescription and medical monitoring of antithrombotic agents and drugs acting on the RAS. Collaboration between pharmacovigilance, clinical pharmacist and practitioner could easily help to reduce occurrence of preventable ADR.

Area: Biogerontology and genetics

O-053
Estimating the association of 5HTTLPR polymorphism with delusions in Alzheimer's disease

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Introduction: Mechanisms underlying delusions in Alzheimer's disease (AD) patients have not been fully clarified. 5HTTLPR is

a 44-bp deletion polymorphism in promoter region of serotonin transporter gene SLC6A4, with 2 alleles: 1 termed long (L) and 1 short (S). Aim of this study was to determine whether the 5HTTLPR serotonin transporter gene polymorphism is associated with delusions in patients with AD.
Methods: A total of 257 consecutive AD patients were included. Of these, 171 AD patients with delusions (AD-D) and 86 AD patients without delusions (AD-noD). All participants underwent a comprehensive evaluation with standardized CGA, Mini-Mental State Examination (MMSE), and Neuropsychiatric Inventory (NPI). Individuals were genotyped for 5HTTLPR polymorphism in blinded fashion.
Results: No significant differences were shown between two groups on gender, mean age, educational level, in disease duration and in age at onset. AD-D showed significantly an higher cognitive impairment in MMSE ($p=0.047$), a major impairment in NPI ($p<0.0001$) and in NPI-Distress ($p<0.0001$), and a worsening in several CGA domains. Homozygosis for L/L genotype was associated with a lower MMSE in all ($p=0.002$) and AD-D ($p=0.024$) patients, and an increased risk for delusions in all AD-D ($p<0.0001$), moderate AD-D ($p<0.0001$) and severe AD-D ($p=0.006$) patients. L/L genotype seems to be associated to cognitive deterioration ($p<0.0001$) and delusion severity ($p=0.005$) after 5-years follow-up.
Conclusions: This study showed that 5HTTLPR polymorphism is associated with delusions in AD, with important implications regarding mechanisms underlying this symptom. Because of this, it could be possible to implement a personalized therapy for AD-D patients.

Area: Cognition and dementia

O-054
How do community-dwelling persons with Alzheimer's disease fall? Falls in the FINALEX study

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Introduction: People with dementia are at high risk for falls. However, little is known of the features causing falls in Alzheimer's disease. The aim of this study was to investigate how participants with Alzheimer's disease fall.
Methods: In the FINALEX exercise trial, participants' (N=194) falls were followed up for one year by diaries kept by their spouses. We investigated various features and risk factors behind the falls.
Results: Altogether 355 falls occurred during follow-up. The most common reason for a fall was stumbling (N=61). Of the falls, 123 led to injuries, 50 to emergency department visits, and 13 to fractures. The participants having no falls (N=103) were younger and had milder dementia than those with one (N=34) or two or more falls (N=57). Participants scoring around ten points on the Mini Mental State Examination were most prone to fall. In age-, sex-, and intervention-adjusted regression models, good nutritional status, good physical functioning according to Functional Independence Measure, timed "Up & Go" test, and Short Physical Performance Battery, and use of antihypertensive medication (Incident Rate Ratio (IRR) 0.68, 95% Confidence Interval (CI) 0.54 to 0.85) protected against falls, whereas fall history (IRR 2.71, 95% CI: 2.13 to 3.44), osteoarthritis, diabetes mellitus, COPD, higher number of drugs, drugs with anticholinergic properties, psychotropics, and opioids (IRR 4.27, 95% CI: 2.92 to 6.24) were risk factors for falls.
Conclusions: Our study provides a detailed account on how and why people with Alzheimer's disease fall, suggesting several risk and protective factors.

O-055
Trauma resurgence and impact on a dementia process

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Introduction: Links may exist between Alzheimer's disease (AD) and Post-Traumatic Stress Disorder (PTSD). No existing study seems to have verified if a PTSD treatment in AD patients can improve episodic memory and dementia stage. We verify if a PTSD treatment can improve memory in early or a moderate dementia subjects, with a positive impact on the AD evolution.
Method: 40 patients are studied with 20 subjects for the target group with AD and PTSD, and 20 subjects for the control group with AD but without PTSD. Our longitudinal study compares the two groups evolution over a 12-month period: before PTSD treatment (T0), after PTSD treatment (T2) and after an additional 6 months of follow-up. During the 3 periods, the episodic memory and the autobiographical episodic memory are examined with the Alzheimer's Disease Assessment Scale, the Memory Impairment Screen and the french version of the Autobiographical Memory Interview. The dementia stage is calculated with the Mini Mental State Examination. PTSD symptoms (with the Clinician Administered PTSD Scale) and quality of life (with the Alzheimer's Disease-Related Quality of Life) are examined.
Results: PTSD treatment in AD patients improve capacities in: (1) word recall, (2) word recognition, (3) immediate recall, (4) delayed recall, (5) recall of personal childhood events, (6) recall of personal young adult events, (7) recall of personal adult events, (8) recall of personal events of the 5 past years, (9) recall of personal events of the 12 past months, (10) general cognitive abilities and (11) quality of life.
Conclusion: PTSD identification and PTSD treatment in AD patients can increase, for more than 6 months, cognitive performance, verbal and autobiographical episodic memory efficiency, can stabilise the dementia process and significantly improve the quality of life.

O-056
Long-term effects of prediabetes and diabetes on cognitive trajectories in a population-based cohort

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Introduction: Diabetes has been linked to dementia risk. However, the cognitive trajectories in older adults with diabetes remain unclear. We aimed to investigate the effect of prediabetes and diabetes on cognitive trajectories among cognitively intact older adults in a long-term follow-up study.
Methods: Within the Swedish Adoption/Twin Study of Aging, 793 cognitively intact older adults aged $\geq$50 were identified at baseline and followed for up to 23 years. Cognitive domains (verbal, spatial/fluid, memory, speed) were assessed at baseline and up to seven follow–ups. Prediabetes was defined according to blood glucose levels in diabetes–free participants. Diabetes was ascertained based on self–report, hypoglycemic medication use and blood glucose levels. Data were analyzed with linear mixed–effect models adjusting for potential confounders.
Results: At baseline, 68 participants (8.6%) had prediabetes and 45 (5.7%) had diabetes. Compared to diabetes–free individuals, people with diabetes had lower performance in spatial/fluid abilities (β −2.63; 95% CI: −5.36, 0.05; $p=0.058$), and an accelerated linear decline over time in verbal abilities (β −0.15; 95% CI: −0.29, −0.01; $p=0.041$). Prediabetes was associated with an accelerated decline in processing speed (β −0.01; 95% CI: −0.02, −0.004; $p=0.041$), but with a better maintenance of memory (β 0.23; 95% CI: 0.05, 0.42; $p=0.013$) over the follow-up.

Conclusions: Prediabetes may accelerate processing speed decline, and diabetes is associated with the verbal ability decline, suggesting that diabetes and even prediabetes affect especially the cognitive domains of fluid intelligence at the early stages of cognitive impairment.

O-057
The association between clinical symptoms of dementia with Lewy bodies and functional image findings using SPECT for dopamine transporter and cerebral blood flow

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Introduction: I-123 ioflupane SPECT is a relatively new imaging tool to assess the integrity of the nigrostriatal dopaminergic neuron. I-123 ioflupane is the radioligand for the presynaptic dopamine transporter (DaT), which improves the accuracy of clinical diagnosis for dementia with Lewy bodies (DLB). Additionally, cerebral blood flow (CBF) in DLB is well-known to decline in the primary visual cortex using I-123 iodoamphetamine (IMP) SPECT which is possible to analyze regional CBF with the 3D stereotactic surface projection method. Few reports to compare the clinical symptoms and the SPECT findings are present.
Methods: Patients with memory loss, visiting our department of General Geriatric Medicine from May to December in 2016 were reviewed. We reviewed their clinical symptoms including tremor, rigidity, gait, visual hallucination, REM sleep behavior disorder, depression, and cognitive disorders. In DaT SPECT, average specific binding ratio (SBR) was calculated. In IMP SPECT, indexed regional CBFs were calculated. Biserial/Polyserial correlation between each clinical symptom and the imaging "marker" from scintigraphy was evaluated.
Results: There were high correlation between the below; tremor and SBR (rho=0.67), time orientation and CBF in parahippocampus gyrus (rho=0.52), pentagon drawing and CBF in parietal cortex (rho=0.65), and pentagon drawing and CBF in primary visual cortex (rho=0.78).
Conclusions: Some of clinical symptoms are associated with the functional imaging markers using clinically available radioisotopes. Our results will be helpful to interpret functional image findings linked the clinical symptoms.

O-058
Long-term exposure to anticholinergic and sedative drugs and cognitive and physical function in later life

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Introduction: Anticholinergic and sedative drugs from various therapeutic classes are frequently prescribed to older people. These drugs are known to impair cognitive and physical function in the short-term. However, long-term exposure to these drugs remains less examined.
Methods: Data from the Longitudinal Aging Study Amsterdam, a Dutch nationally representative cohort study, collected over twenty years (1992–2012) at seven occasions, were analyzed. On each occasion, cumulative exposure to anticholinergic and sedative drugs was quantified with the Drug Burden Index (DBI), a linear additive pharmacological dose-response model. The relationships between the DBI and outcomes of cognitive function (MMSE, Alphabet Coding Task, 15-Words Test) and physical function (Walking Test, Chair Stands Test, Cardigan Test, and Functional Independence Scale) were examined using linear mixed models adjusted for sex, marital status, age, education, smoking status, drugs not included in DBI, body mass index, depression, and co-morbidities.
Results: At baseline, there were 2896 individuals (52% women; mean age 70±9 years). Of them, 62% had no exposure to anticholinergic and sedative drugs (DBI=0), 24% moderate exposure (DBI =0–1), and 14% high exposure (DBI >1). Significant independent associations were found between the DBI and physical function (Walking Test log transformed: B=0.02 [95% CI: 0.01; 0.03], Cardigan Test log transformed: B=0.02 [95% CI: 0.01; 0.03], Chair Stands Test B=0.48 [95% CI: 0.20; 0.76], and Functional Independence: B= -0.89 [95% CI: −1.22; −0.55]). No associations were found between the DBI and cognitive function.
Conclusions: Over 20 years, higher anticholinergic and sedative exposure is associated with poorer physical but not poorer cognitive function.

Area: Pharmacology

O-059
Potential drug interactions in older patients with cancer: the ELCAPA cohort survey (ELCAPA-15)

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Introduction: Because of the increasing number of comorbidities with age leading to polypharmacy, older cancer patients are at higher risk of adverse events related to drug-interactions in the daily medications, but also between daily medications and chemotherapy drugs.Objectives: To identify Potential Drugs Interactions (PDI) in the daily medications, PDI between daily medications and chemotherapy, Potential Clinical Outcomes (PCO) related to major PDI.
Method: From 2007 to 2014, all consecutive cancer patients aged 70 years or older, referred for geriatric assessment were included in the prospective ELCAPA cohort survey. For the present study patients receiving chemotherapy were analyzed. PDI were analyzed using Lexicomp Online® (Lexi-Comp, Inc., Hudson, USA) software and completed with the Theriaque® website for French medications. Collected PCO were those relevant in geriatrics. PDI and PCO were classified according to importance (A: no interactions known, B: no action needed; C: monitor therapy; D: consider therapy modification; X: avoid combination). Factors associated with PDI of grades C, D or X were analyzed using ordered multivariate logistic regression dependent variable being the PDI in three categories, PDI of grade A or B (reference), versus C, versus D or X.
Results: The study included 442 patients (median age: 77 years;

Q1: 74.5 - Q3: 81; 48.7% of women). Most frequently tumor site were colorectal (20.9%), followed by urological tracts (19%), breast (12.4%); 22.9% had metastasis. The median number of drugs per patients per day was 6 [3–8], the median comorbidities index CIRS-G was 12 [9–16]. At least 1 PDI per patient was identified in the daily medications in 70.6% of patients (median 4 [2–7]), and between daily medications and chemotherapy drugs in 33.9% (median 2 [1–3]). Overall, 171 patients had PDI of grade C (38.7%) and 166 of grade D or X (37.6%); 1918 grade C, D or X PDI were identified (83.8% of C and 16.2% of D or X), 1578 (71.5%) in the daily medications and 340 (28.5%) between daily medications and chemotherapy. Considering drug-interaction in daily medications, main PCO were hypotensive risk (31.7% of all PDI), psychotropic effects (16.4%), glycemic disorders (11%), hemostasis deregulation (7.9%), fluid disorders (7.4%), and QT prolongation (3.6%). Considering drug-interaction between daily medications and chemotherapy, main PCO were risk of renal, cardiovascular, hemostasis deregulation, or neurogenic impairment (17.6%), over-exposition of chemotherapy (11.7%) or under-exposition (8%). After adjustment for age, tumor site and metastasis, factors independently associated with PDI were increase number of daily medications (adjusted OR (ORa)1-medication increase = 1.74; 95% CI [1.43–2.11] for grade C; ORa=1.95; 95% CI [1.56–2.43] for grade DX), hypertension (ORa=4.10; 95% CI [1.84–9.17] for grade C) and overweight/obesity (ORa=2.55; 95% CI [1.12–5.82] for grade C).

Conclusion: PDI were frequent in older cancer patients. This highlights the need of monitoring the iatrogenic risk, especially for hypotension risk, psychotropic side-effects, glycemic and hemostatis regulation mainly in patients with polypharmacy, hypertension, and overweight, with integrated team involving geriatricians, pharmacists, and oncologists.

Area: Ethics and end of life care

O-060
The use of opioids in the dying geriatric patient: comparison between the acute geriatric ward and the palliative care unit

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Introduction: Palliative care for the older person is often limited, resulting in poor quality of dying. Using opioids can be one of the cornerstones to achieve better symptom control. However, little data concerning the use and dosage of opioids are available.

Methods: In this multicentric retrospective study, we included patients 75 years and older who died on the acute geriatric unit (AGU) and the palliative care unit (PCU) in 3 hospitals (during a 2-years period). Sudden deaths were excluded. Demographic and clinical variables, and data concerning use and dosage of opioids in the last 72 hours before death were collected. Underlying pathology was divided into several groups: cancer, organ failure, dementia, others.

Results: Data from 556 patients were collected (38.5% from PCU, 61.5% from AGU). On the PCU, cancer was the most frequent underlying pathology, compared to organ failure on the AGU. After adjusting for the variables age, gender, underlying pathology, opioids seemed to be given more frequently (OR 1.2; 95% CI: 1.1–1.3; P<0.001) and in a higher dosage (B 34.2; 95% CI: 15.0–53.4; P=0.001) on the PCU compared to the AGU.

Conclusions: Organ failure is more frequently considered as the underlying pathology in elderly dying on an AGU, compared to cancer on a PCU. After adjusting for these variables, opioids are more often used and in a higher dosage in the terminal phase in patients on the PCU compared to the AGU.

O-061
Use of opioids at the end of life in adults with advanced dementia in Finland

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Introduction: Alzheimer's disease as well other types of dementias are inevitably progressive. Recognizing their terminal stage is therefore a basis in the adequate palliative care planning. Pain is believed to be under-treated in elderly, especially in patients with dementia.

Methods: Data from long-term care facilities was extracted from the Resident Assessment Instrument (RAI) database of Finnish National Institute for Health and Welfare during the 3-year study period. Study was descriptive and cross-sectional. Relationships were performed as chi-squares and logistic multivariation tests.

Results: The total number of assessments was 23454. Mean age was 84 years and it was almost equally distributed across the country. The number of residents over 90 years was significantly higher in Helsinki (27%) compared to the rest of Finland (22%). Two-thirds of residents were female. Opioids were used in more than a third of all observations. Buprenorphine was the most common. Phentanyl (OR 0.35, 95% CI: 0.26–0.47) and buprenorphine (OR 0.73, 95% CI: 0.58–0.90) were significantly less used in Helsinki. Opioids were significantly more used among patients over 90 years (OR 1.30, 95% CI: 1.05–1.62). Despite observed more pain, patients with dementia were more likely to receive lower doses of opioids in Helsinki compared to those in other parts of Finland. However, the lowest percentage of use was found among nursing home residents.

Conclusion: Our results show that there are clear differences in treatment of patients with dementia at the end of life in Helsinki compared to other parts of Finland, especially among nursing home residents.

Area: Pharmacology

O-062
Effect of the Mebrobamate removal on psychotropic drugs consumption in patients with dementia (PACAL-Alz cohort)

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Introduction: Describe the consumption of psychotropic drugs 6 months after the withdrawal of Meprobamate (usually prescribed for behavioral symptoms of dementia in France) in the PACA-Alz cohort with the hypothesis of a switch to other psychotropic drugs.

Methods: Retrospective observational pharmacoepidemiological study from 10/01/2011 to 07/01/2012 based on Provence Alpes Côte d'Azur region (PACA)-ALZ cohort including patients with the chronic condition "Alzheimer disease or related disease" and/or had at least one delivery of Alzheimer's specific treatment, registered in the General Health Care System. Four subgroups were analyzed according to the moment of the meprobamate removal announcement (October 2011) and the removal (10/01/2012). Chronic exposure defined as 3 consecutive deliveries.

Results: Among the 36442 subjects of the cohort, 11.1% had at least a delivery of mebrobamate in 2011; out of which 44.6% (n=1814) were still consumers after the removal announcement. Those who were the latest to stop meprobamate were more likely to be on a chronic consumption (86.5%). In all groups, meprobamate withdrawal was associated with an important increase of benzodiazepines (+15.3%, p<0.001) and antipsychotics consumption (+5.6%,

p<0.001), in particular in the subgroup who stopped in January 2012 (+25.1% and +10.0% respectively).
Conclusions: The removal of a psychotropic drug is associated to the switch to others psychotropic classes. This should be taken into account when specific warnings are published with pharmacoepidemiological studies to follow consumption modifications.

O-064
Trajectories of long-term exposure to anticholinergic and sedative drugs: A latent class growth analysis

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Introduction: A variety of drugs, which are frequently prescribed to older people, have anticholinergic and sedative effects whereby they may impair cognitive and physical function. Although substantial inter-individual variation in anticholinergic and sedative exposure has been documented, little is known about subpopulations with distinct trajectories of exposure.
Methods: Data from the Longitudinal Aging Study Amsterdam (LASA), an ongoing Dutch population-based cohort study, collected over 20 years (1992–2012) at seven occasions, were analyzed. On each occasion, cumulative anticholinergic and sedative exposure was quantified with the Drug Burden Index, a linear additive pharmacological dose-response model. The most likely number of trajectories were empirically derived with Latent Class Growth Analysis using "Goodness of fit" statistics. Trajectories were then compared on physical and cognitive function.
Results: A total of 763 participants completed all follow-ups (61% women; mean age 83, ±6). "Goodness of fit" statistics (Bayesian Information Criterion = 22916, Bootstrapped Likelihood Ratio Test of 3 vs. 2 classes = 514.12 p<0.01, Entropy = 0.87) indicated the presence of 3 distinct trajectories: "Gradual Increase" (67%), "Stable High" (8%), and "Steep Increase" (25%). Linear mixed models adjusted for co-morbidities and other covariates demonstrated poorer physical function but not poorer cognitive function for "Stable High" and "Steep Increase" trajectories compared to the "Gradual Increase" trajectory.
Conclusions: Three trajectories of long-term anticholinergic and sedative exposure were identified. The present findings need corroboration by examining whether more adverse trajectories are associated with poorer outcomes on other measures of physical and cognitive function.

O-065
Implementing medication reconciliation for elderly hospitalized in an orthopedic unit raised surgeons' awareness to therapeutic recommendations and led to decrease the cumulative exposure to sedative and anticholinergic drugs

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Introduction: Sedative and anticholinergic medications are widely used in older adults. They are associated with adverse clinical outcomes, especially falls that can lead to hospitalization. In the orthopedic unit, the mobile geriatric multidisciplinary team (MGMT) is consulted to assess clinics of patients over 75. Recently, we have integrated systematic medication reconciliation and medication review to therapeutic recommendations. The aim of our study was to evaluate the impact of this process on in-hospital prescriptions, and exposure to sedative and anticholinergic drugs.
Methods: We recruited patients over 75 hospitalized in the orthopedic unit of a 1200-bed University Hospital. After a clinical assessment, medication reconciliation was performed and medication review was implemented to provide therapeutic recommendations. Cumulative exposure to anticholinergic and sedative drugs within the chronic treatment was measured by the drug burden index (DBI). We retrospectively compared recommendations provided by the MGMT, before and after implementation.
Results: 58 and 56 patients were recruited before and after implementation, respectively. Demographics and DBI at admission, were comparable for both groups. After implementation: (i) the number of therapeutic recommendations significantly increased (1.7±2.0 vs 3.4±2.2 p<0.05), such as their acceptance rate (10±6% vs 67±35%; p<0.05); (ii) the DBI of chronic treatment was significantly decreased at discharge (1.09±0.72 vs 0.81±0.58, p<0.01).
Conclusion: Medication reconciliation ensured the process of medication history and provided a solid basis for medication review. We had a significant impact on cumulative exposure to anticholinergic and sedative drugs at discharge. Further studies are required to evaluate the long-term clinical impact.

Area: Ethics and end of life care

O-066
A high sense of coherence in old spousal caregivers protects from burden

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Introduction: Studies about caregiving focus often on the "burden" of the caregiver but few have looked at caregiver's potential resources like the sense of coherence (SOC). SOC has 3 components (comprehensibility, manageability and meaningfulness) and has been positively associated to perceived health and quality of life. Our research question was: Has SOC an influence on the burden in older caregivers?
Methods: Seventy-nine spousal caregivers of frail older patients were recruited through the geriatric outpatient clinic. Data collected: Zarit Burden Inventory, SOC, Geriatric Depression Scale (GDS-15), sleep, time of supervision. Among care-receiver: Katz Index, Global Deterioration Scale and Neuropsychiatric Index. A

multivariable logistic regression was performed to identify the variables which best predict caregivers' burden. Results are presented as mean ± SD, median ± P25–P75, odd ratios (OR) and 95% confidence intervals (CI).
Results: Mean age was 79.4±5.3; 53% were women. Among care-receiver (mean age 81.6±5.3) 82% had cognitive impairment and the median (P25-P75) Katz Index was 14 out of 24 (8–17). Caregivers' burden mean score was 32 out of 88 representing a "mild to moderate burden" according to Zarit. Caregivers with a high SOC and caregivers older than 80 years old showed a lower burden (OR=0.2; 0.05–0.68 & OR=0.88; 0.78–0.99, respectively). A higher burden was associated with more ADL-dependency among the care-receiver (OR=9.31; 2.1–53.7).
Conclusions: Having a high sense of coherence seems to be a protective factor against the burden. To support caregivers, health providers should recognize their expertise and the meaning of this care situation in order to enhance their positive reactions.

Area: Pre and post operative care

O-067
Pre-operative Geriatric Medicine Surgical Liaison Clinic: A service evaluation

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Introduction: We set up a pre-operative geriatric medicine clinic for the frailest patients undergoing elective surgery. The nurse-led pre-operative assessment clinic was asked to identify patients using a validated frailty score.
Methods: The Edmonton Frail Scale (EFS) has been shown to be valid for use by non-geriatricians [1]. Patients aged ≥65 with EFS score ≥10 (orthopaedic surgery) or ≥7 (vascular or colorectal surgery) were referred to a geriatrician pre-operatively.
Results: 47 patients (69–94 years, mean age 80.4) were reviewed. 43% did not meet referral criteria. This was disproportionately seen with increasing age; 70% of patients aged <76 being appropriately referred and 54% of patients aged ≥76. Only 35% of orthopaedic referrals met the EFS criterion.Geriatricians recommended specific interventions in 66% of patients. This did not correlate with EFS and geriatric review was at least as likely to prompt a change in management in patients with low EFS scores as in those with higher scores.
Conclusions: Our results suggest limitations to the reproducibility of EFS scoring and to its value in this setting. Bias towards referral to geriatric clinic may be introduced because of older patient age, or the nature of the intended surgery. EFS served as a poor predictor as to whether geriatrician review could drive medical optimisation pre-operatively.Local practice has evolved, with referrals now based on clinical concern from surgical or anaesthetic colleagues rather than EFS.
References:
[1] Rolfson DB et al. Validity and Reliability of the Edmonton Frail Scale. Age and Ageing 2006 35(5) 526–9.

O-068
Isolated cardiac troponin rise does not modify the prognosis in elderly patients with hip fracture

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Introduction: Perioperative myocardial infarction remains a life-threatening complication in non-cardiac surgery and even an isolated troponin rise (ITR) is associated with significant mortality. Our aim was to assess the prognostic value of ITR in elderly patients with hip fracture.
Methods: In this cohort study, all patients admitted between 2009 and 2013 in our dedicated geriatric post-operative unit after hip fracture surgery with a cardiac troponin I determination were included divided into Control, ITR and acute coronary syndrome (ACS) groups. The primary end point was a composite criteria defined as 6 month mortality and/or re-hospitalization. Secondary end points included 30-day mortality, 6 month mortality, and 6 month functional outcome.
Results: 312 patients were (age 85±7 years) divided into Control (n=217), ITR (n=50) and ACS (n=45) groups. There was no significant difference for any post-operative complications between ITR and Control groups. In contrast, atrial fibrillation, acute heart failure, hemorrhage, and ICU admission were significantly more frequent in the ACS group. Compared to the Control group, 6-month mortality and/or rehospitalization was not significantly modified in the ITR group (26 vs 28%, P=0.84, 95% CI of the difference -13 to 14%) whereas it was increased in the ACS group (44 vs 28%, P=0.02, 95% CI of the difference 2 to 32%). ITR was not associated with a higher risk of new institutionalization or impaired walking ability at 6 month, in contrast to ACS group.
Conclusion: In elderly patients with hip fracture, ITR was not associated with a significant increase in death and/or rehospitalization within 6 months.

O-069
Clinical and functional differences at 1-year follow-up between nursing home and community dwelling hip fracture patients

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Introduction: The aim of this study was to know if there are dif-

ferences in clinical and functional outcomes at 1-year of follow-up between nursing home (NH) and community dwelling (CD) hip fracture (HF) patients.
Methods: All patients admitted with HF from January 2013 through February 2014 to a co-managed orthogeriatric unit in a 1,100-bed university hospital were included. A geriatric assessment protocol was applied and patients were treated with a specific protocol aimed to improve function, nutrition, bone metabolism, pain and anaemia. They were classified in function of their previous place of residence. One year after HF, patients or relatives were contacted by telephone and requested about vital and functional status and readmissions. The impairment of the gait was moderate/severe if the patient had ≥2/5 points decline in the Functional Ambulatory Category Scale.
Results: Five hundred and nine patients were included, 116 (22.8%) of them were admitted from NH. At 1 year follow-up NH patients had a similar mortality rate than CD patients (27.6% vs 21.9%, p=0.201), they had similar hospital readmissions (27.6% vs. 23.6%, p=0.479), they reached their baseline gait ability less frequently (38.5% vs 56.2%, p<0.001). The impairment of gait was moderate/severe more frequently (41.0% vs 18.8%, p<0.001) in NH than in CD patients.
Conclusions: HF patients admitted from NH and treated by means of a specific orthogeriatric assessment and management protocol did not die or were readmitted more frequently at 1-year follow-up but they had more functional decline than CD patients.

O-070
Preoperative geriatric assessment and tailored interventions in frail older patients with colorectal cancer. A randomised controlled trial

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Background: Colorectal cancer (CRC) is prevalent in the older population, and surgery is the mainstay in curative treatment. A preoperative geriatric assessment (GA) can identify frail older patients at risk for developing postoperative complications. In this randomised controlled trial we wanted to investigate whether tailored interventions based on a preoperative GA could reduce the frequency of postoperative complications.
Methods: Patients >65 years scheduled for elective CRC surgery and fulfilling predefined criteria for frailty were randomised to either a preoperative GA followed by a tailored intervention, or care as usual. Primary endpoint was severe postoperative complications. Secondary endpoints included any complication and survival.
Results: 122 patients with a mean age of 78.6 years were randomised. Time from inclusion to surgery was median 6 days. We found no statistically significant differences between the intervention group and the control group for severe complications (68% vs 75%, p=0.43) or 30-day survival (4% vs 5%, p=0.79). Any complication occurred in 76% of intervention group patients compared to 87% in the control group (p=0.10). In secondary analyses adjusting for prespecified prognostic factors, there was a statistically significant difference in favour of the intervention for reducing the total number of complications (p=0.05).
Conclusion: A preoperative GA and tailored interventions did not reduce the rate of severe complications in frail older patients electively operated for CRC. Secondary analyses showed an effect of the intervention for reducing the total number of complications. This effect was due to a reduction of less severe complications in the intervention group.

O-071
Prognostic value of the Erasmus Frailty Score on post-operative delirium after transcatheter aortic valve implantation in older patients. The TAVI Care & Cure study

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Introduction: Post-operative delirium (POD) is a frequent and severe complication in older patients undergoing TAVI. However, little is known about the prognostic value of frailty on POD. This study investigated the potential independent value of a novel, self-developed frailty score in predicting delirium after TAVI in older patients.
Methods: TAVI Care & Cure is an observational ongoing study including consecutive patients undergoing TAVI at the Erasmus University Medical Centre. Prior to TAVI, a frailty status was assessed. The Erasmus Frailty Score was defined as follows: 1 point assigned when: MMSE was <27 points, MUST <2 points, grip strength <20 kg for females, <30 kg for males, KATZ index ≥1 limited activity, Lawton and Brody index ≥2 limited activities. Maximum score was 5. Patients were classified as frail when the score was ≥3. Presence of delirium was evaluated by daily clinical assessment by a geriatrician pre- and post TAVI. Primary outcome was to investigate the predictive value of frailty on delirium in TAVI patients. Logistic regression was used.
Results: 213 patients were included for analysis. Incidence of POD was 19.5% (n=50). A frailty score of ≥3 was significantly more present in the group of patients developing a delirium (OR 2,9 (95% CI 1,30–6,6], p=0.009). Other independent predictors of POD included: age (OR 1.10 [95% CI 1.01–1.19], p=0.021), previous stroke (OR 6.36 [95% CI 2.2018.40], p=0.001), MUST-score ≥2 (OR 2.8 [95% CI 1.03–7.44], p=0.043), and cognitive disorder (p=0.015).
Conclusion: The Erasmus Frailty Score is an independent predictor of POD in the elderly.

O-072
Impact of anticoagulants and antiplatelet agents on long-term mortality after hip fracture

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Objectives: To evaluate the impact of preoperative anticoagulant and antiplatelet therapy on the long-term mortality of hip fracture patients.
Methods: One-year follow-up study including patients aged >65 admitted with hip fracture. Variables: demographic, functional (Barthel Index – BI, Functional ambulation classification – FAC, Lawton index – LI), comorbidity (Charlson's Index – CCI), time to surgery (T-Surg), length of stay (L-stay), use and type of Anticoagulant and antiplatelet agents, admission haemoglobin (Hb-a), lowest haemoglobin level (Hb-L), blood transfusion, complications and mortality at 1-year follow-up. Statistical analysis: Chi-square and Mann-Whitney U test, Kaplan-Meier survival curves, Cox regression model. SPSS 23.0.
Results: n=418, mean age 84.9 (SD: 7.2), women 79.9%, BI 85 (IQR = 65–95), FAC 4 (IQR = 3–5), CCI 6.4 (SD: 2.0), cognitive impairment 43.5%. T-Surg 3.8 (IQR = 2.1–5.5); L-stay 9.3 (IQR = 6.4–14.7). Anticoagulants 15.8% (acenocumarol 86.2%). Antiplatelet agents 34.4% (Acetylsalicylic acid 100mg/day 76.9%, 300mg/day 9.0%, Clopidogrel 9.0%). Hb-a 12.5; Hb-L 8.9; preoperative blood transfusion 24.7%. Complications: delirium 45.6%, heart failure 16.5%, kidney injury 25.9%. In-hospital mortality 3.3%, one-year mortality 15.2% (anticoagulant therapy 18.3%, antiplatelet therapy 17.1%, and other 9.8%; with no differences between groups). There was statistical association between death and sex, age, functional status, comorbidity, Hb-a, length of stay and complications (p<0.05). Predictors of

one-year mortality in multivariate analysis: men HR 2.18 (p=0.010), age HR 1.04 (p=0.054), CCI HR 1.28 (p<0.001), kidney injury HR 2.62 (p=0.001), and delirium HR 2.07 (p=0.025).
Conclusions: There was no association between use of anticoagulant and antiplatelet agents and mortality 1-year follow-up in our sample; being demographic, comorbidity, and certain complications the main predictive factors.

O-073
Consultants of the week model in orthogeriatric care

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Objectives: There are various models of orthogeriatric care. This includes older models such as the traditional model of orthopaedic care and post-operative geriatric care. Newer models include orthopaedic patients having routine orthogeriatric review, admitted under geriatricians and shared care (patients are managed throughout their stay by a named orthopaedic surgeon and a named orthogeriatrician within a defined orthogeriatric team).
Methods: We use the shared care model but noted that the orthogeriatrician focused on the hip fracture patients (NoFs) whereas the orthopaedic surgeon focused on the other trauma patients. The medical needs of the trauma patients were not addressed early and at times the orthopaedic needs of the hip fracture patients were delayed.In November 2016, we implemented the CoW, whereby the same orthopaedic surgeon and orthogeriatrician saw every patient on the ward round.
Results: 6 months before the CoW model (July – Oct 2016), the Length of Stay (LOS) for NoFs was 13.13 days and 4 months after the CoW model (Nov–Feb 2017), the LOS was 13.33 days.For other trauma patients, before CoW, LOS was 7.77 days and after CoW 6.49 days.We receive 400 NoFs and 1291 other traumas annually. With a 1.28 day reduction for other trauma; the cost savings (£275/bed) is approximately £454,432 for other trauma with total net saving of £432,432. Midnight bed occupancy: 26.77 before CoW and 24.44 after COW.Readmissions: 16.0% before CoW and 13.1% after CoW.
Conclusion: The CoW model reduced the LOS for trauma patients with significant cost-savings.

O-074
Association between actigraphy sleep parameters and recovery of walking ability after hip fracture

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Introduction: Several studies had shown an association between sleep disorders and sarcopenia, cognitive function, mood and mortality, especially among elderly with osteoporotic fracture. The main objective of this study is to examine the association between objective sleep parameters and recovery of walking ability in acute care after hip fracture.
Methods: All patients admitted within 3 days after hip fracture surgery (HFS) into a dedicated unit of peri-operative geriatric (UPOG) care and who completed wrist actigraphy were included. Actigraphy was used to record sleep parameters including total sleep time, daytime and nighttime sleep duration and a sleep-wake parameter, the circadian rhythm, which refers to the relationship between daytime and nighttime activity. Demographic and medical data were also prospectively collected and especially if patient had or not a walking disability prior to the fracture.
Results: From 06/2015 to 03/2017, 133 patients were included (age 87±6 years; men 17.3%, dementia 39%, CIRS 10±4, previous walking disability 65%). After discharge, 68% patients recovered previous ambulation status (95.4% with previous walking disability, 15.2% without). In patients with previous walking disability, recovery was inversely associated with daytime sleep duration (p=0.047), and positively associated with circadian rhythm (p=0.002) and nighttime activity (p<0.001). No association was found in patients without walking disability.
Conclusion: In elderly patients with hip fracture surgery managed in UPOG care pathway, recovery of previous ambulation status at discharge is associated with daytime sleep duration and physical activity assessed by actigraphy at admission.

Area: Cognition and dementia

O-075
Relationship of brain amyloid deposition to daily functioning in older adults without dementia: A longitudinal study from the MAPT trial

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Objectives: Amyloid plaques are pathologic features of Alzheimer's disease and negatively impact the longitudinal course of cognitive function in older adults. However, the longitudinal evolution of daily limitations in amyloid positive individuals remains largely unknown so far. Here we aimed at examining the evolution of instrumental activities of daily living (IADL) performance according to the presence of brain amyloid deposition. Design: Observational longitudinal analysis. Setting: Amyloid Positon Emission Tomography (PET) ancillary study from the Multidomain Alzheimer Prevention Trial. Participants: 269 community dwelling elders aged 70 and over without dementia. Measurements: Linear mixed models were performed to assess the 36-month modification of ADL-PI performance according to the presence of amyloid deposition (Standardized Uptake Value $\geq$1.17). Additional analyses were also performed to examine the changes in specific domains of daily functioning. Analyses were also performed with adjustments for age, gender, ApoE and randomization group.
Results: Among our participants (women = 60%, age = 75±4 years), 102 (37.9%) were amyloid positive. Amyloid negative subjects showed a statistically significant improvement in ADL-PI total score (p=0.04 after 36 months). The difference in change between the amyloid positive and negative participants was not significant (β=−0.95±0.53 after 36 months, p=0.08). These changes in IADL performance after 3 years were consistent in adjusted models (β=−1.04±0.53, p=0.07). Amyloid positive subjects were also likely to present more difficulties in memory tasks (β=−0.45±0.24, p=0.06) than their amyloid negative counterparts.
Conclusion: Amyloid positive elders showed poorer IADL performance after 3 years. Future research is needed to better understand the relationship of amyloid plaques to functional limitations.

O-076

Corneal Confocal Microscopy a potential surrogate end point for mild cognitive impairment and dementia

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Background: There are no validated biomarkers to diagnose mild cognitive impairment (MCI) or dementia. Corneal confocal microscopy (CCM) is a non-invasive ophthalmic device which can detect neuronal loss, characterised by a reduction in corneal nerve fibre density (CNFD), branch density (CNBD) and length (CNFL). We have pioneered CCM as a surrogate marker of neuronal loss in a range of peripheral neuropathies and more recently in central neurodegenerative conditions like Parkinson's disease and Multiple Sclerosis.
Aims: To evaluate the association between cognitive impairment and corneal axonal loss in individuals with MCI and dementia.
Methods: 56 subjects (20 with MCI, 14 with dementia and 22 controls) underwent assessment of cognitive impairment (MoCA) and CCM.
Results: Comparing dementia vs MCI vs controls, CNFD (24.33±1.9 vs 25.68±2 vs 32.53±1.8, p=0.008), CNBD (78.1±12.5 vs 92.76±10.1 vs 120.51±10.7, p=0.02) and CNFL (19.92±1.8 vs 21.28±1.4 vs 26.09±1.3, p=0.01) were significantly reduced. Age (74.2±2.4 vs 69.1±1.7 vs 67.9±1.8) p=0.09 and HbA1c (6.49±0.4 vs 6.94±0.4 vs 7.27±0.34%) p=0.4 were comparable between subjects with dementia, MCI and controls, respectively. Furthermore, in a multiple linear regression model adjusted for age and HbA1c, there was a significant association between loss of cognitive ability and CNFD (R2=30.5%, F=6.44, p=0.001), CNBD (R2=28.26%, F=5.78, p=0.002) and CNFL (R2=29.55%, F=6.15, p=0.001).
Conclusion: CCM detects axonal loss and may therefore act as a viable surrogate end point for clinical trials in patients with MCI or dementia.

O-077

Reperfusion therapy and long-term outcomes in patients with ST-elevation myocardial infarction and pre-existing dementia

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Introduction: ST-elevation myocardial infarction (STEMI) patients with dementia were less likely to receive reperfusion procedures than those without mental disorders but the long-term outcomes were inconclusive. In this study, we examined the long-term outcomes of patient with dementia between the groups of with reperfusion and without reperfusion in an incident STEMI cohort from a population-based database.
Methods: Using the data claimed by Taiwan National Health Insurance between 2003 and 2009, incident cases of STEMI with age over 65 years with dementia were identified. We identified 759 eligible patients, 402 with and 357 without reperfusion therapies in the course of hospitalization for STEMI until 2012. Adjusting for age, gender and comorbidities, we used survival analysis for all-cause, cardiovascular (CV), non-CV mortality and hospitalization due to heart failure and analyzed the risk of mortality by stratified the different hospital levels.
Results: Participants had a mean age of 80.3 years (47.8% female). The group without reperfusion was associated with increased risk of long-term all-cause mortality rate (Hazard Ratio (HR) 1.69, p-value <0.001) and CV mortality rate (HR 2.32, p-value <0.001). The risk of CV mortality between without and with reperfusion therapy group was higher in medical center (HR 4.41, 95% CI: 2.21 to 8.77) than regional hospital (HR 3.06, 95% CI: 1.70 to 5.52) and local hospital (HR 1.34, 95% CI: 0.37 to 4.85).
Conclusions: STEMI older patients with dementia who didn't receive reperfusion therapy showed higher mortality risk. In higher hospital level, the benefit of reperfusion therapy was more significant.

O-078

Hippocampal calcifications: Risk factors and association with cognitive functioning

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Background: Hippocampal calcification (HCC) is commonly seen on computed tomography (CT) in people above 50 years old. The etiology and possible association with cognitive functioning is poorly understood. Our aim was to identify risk factors for HCC and to investigate the association of HCC with cognitive functioning.
Methods: Consecutive patients visiting a memory clinic of a Dutch general hospital between April 2009 and April 2015 were identified. All individuals underwent a standard routine diagnostic work up including cognitive tests and a CT scan of the head. Vascular risk factors as hypertension, diabetes mellitus (DM), hyperlipidemia and smoking were assessed. Cognitive screening consisted of the Cambridge Cognitive Examination (CAMCOG), Visual Association Test (VAT) and the Clock Drawing Task (CDT). CT scans were analyzed by presence and severity (absent, mild, moderate or severe) of HCC.
Results: A total of 1991 patients (median age 80 years, inter quartile range 73; 85) were included, of whom 380 (19.1%) had HCC. Increasing age (odds ratio [OR] per year 1.05, 95% confidence interval [CI] 1.03–1.07), DM (OR 1.49, 95% CI 1.12–2.00) and current smoking (OR 1.50, 95% CI 1.05–2.14) were associated with the presence of HCC. No associations were found between presence and severity of HCC and cognitive functioning.
Conclusions: Increasing age, DM and current smoking appear to be associated with an increased risk of HCC. However, there is no evidence from this study that HCC has a role in the multicausal etiology of dementia.

O-080

The relationship between stress, carotenoids and cognitive function in The Irish Longitudinal Study on Ageing (TILDA)

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Introduction: It is well established that psychological stress can adversely affect cognition. Dietary antioxidants have long been associated with health benefits, via a putative reduction in cellular stress. Recently the antioxidant carotenoids lutein and zeaxanthin have been associated with better cognition. Therefore, the study aim was to investigate whether these carotenoids can buffer the negative impact of psychological stress on cognition.
Methods: The sample comprised 3,577 older adults, who were part of The Irish Longitudinal Study on Ageing. Cognitive function was comprehensively assessed at baseline and 4 years later. Stress was

measured using the 4-item Perceived Stress Scale. Blood levels of the carotenoids lutein and zeaxanthin were measured at baseline. Covariates included demographics, education, health conditions, and health behaviours. The effect of stress, carotenoids and their interaction on cognitive function was analysed using mixed-effects regression.
Results: Stress was negatively associated with global and memory scores. There was a positive main effect of zeaxanthin on memory (b=−1.12, p<0.05, 95% CI: −2.24, −0.006). There was also a significant effect of the interaction between zeaxanthin and stress on memory scores such that, among individuals with higher stress, those with higher levels of zeaxanthin showed better memory than those with lower zeaxanthin (b=0.32, p<0.01, 95% CI: 0.08, 0.55). There was no significant effect of the interaction on the other cognitive domains.
Conclusions: There is limited evidence that antioxidant compounds such as lutein and zeaxanthin may have a protective role in stress-related cognitive dysfunction. More detailed study is warranted.

O-081
The effect of a cognitive stimulation program on institutionalized elderly: a randomized controlled trial

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Introduction: Cognitive stimulation therapy (CST) offers a range of activities, which provide general stimulation for thinking, concentration, and memory, commonly in a social setting. This paper describes the effectiveness of CST on cognition and depressive symptoms in older adults in nursing homes (NHs).
Methods: A randomized controlled trial, carried out in 2016, included 100 residents from five NHs, 75 women and 25 men (randomized into experimental (n=49) and control groups (n=51)). Six participants dropped out (intention to treat (ITT) analysis and per protocol (PP) analysis were performed). During 7 weeks, participants of the experimental group underwent 14 CST sessions, and participants of the control group received usual care. The Mini-Mental State Examination, the Geriatric Depression Scale-15, were administered at baseline and postintervention.
Results: Inferential statistics revealed that CST increased cognition in the experimental group (p<0.01; R2 (%) =58.82), although evidence of differences between groups in depressive symptoms was not found (p>0.05; R2 (%) =43.4). However, from a clinical point of view, in the experimental group there was evidence of depressive symptoms reduction (p<0.05), while there was no evidence reduction in the control group (p>0.05).
Conclusions: CST had significantly improved cognition, with a moderate significant correlation, but there was no statistical evidence of its effectiveness on depressive symptoms. These results support the implementation of CST in NHs. Additionally CST may also have an important economic impact by reducing the costs of the impact of elders' cognitive frailty.

O-082
Optimization of antipsychotic drug's prescription through an efficient personalized awareness campaign towards nursing home residents suffering from dementia

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Introduction: Antipsychotics drugs (AP) are commonly used to treat behavioral and psychological symptoms in dementia (BPSD) although their non-negligible adverse effects. Despite several warnings, the prevalence of AP use remains high, particularly in nursing homes (NH).
Aim: Optimizing the AP's prescription of NH residents suffering from dementia, with a personalized awareness campaign to the resident's general practitioner (GP) by the NH practitioner. Study design: Observational prospective multicentric study.
Methods: All permanent NH residents suffering from dementia or cognitive impairment that are treated with AP were included in the study. Each related NH's practitioners were asked to fill up a questionnaire for every resident, based on her/his medical record. Then, the practitioner asked the resident's general practitioner (GP) to reevaluate the need of the AP's prescription after giving information about the benefice/risk of AP in these indications and reminding national warnings about AP's prescriptions in NH.
Results: 30 NH volunteered to participate for a total of 2344 residents. Out of those residents, 24% were under AP regimen, 15% were diagnosed demented and had AP's prescriptions. 317 residents' file were retained; 80,1% of which had an atypical AP's prescription. Most of the residents had a psychotropic drugs coprescription (anxiolytic Benzodiazépines and BZD-like: 43.2%; Antidepressants: 33.1%; Hypnotics: 16.1%). Only 187 files (60%) were completed by the GPs. After the campaign, 44.8% of the AP's prescriptions were modified by the GP (15.5% withdrawal, 19.3% dose modification).
Conclusion: The number of AP's prescription is high in NH residents with dementia and is often associated to other psychotropic drugs prescription. Personalized awareness campaign showed an improvement in optimizing AP's prescription in this population. This has to be confirmed with the follow up of this cohort.

Area: Acute care

O-083
Acute heart failure management and treatment in the elderly: adherence to current guidelines in the real world. Data from the ATHENA Registry

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Introduction: Heart failure (HF) has a high prevalence in the elderly. Aim of our study was to compare adherence to current clinical guidelines in the management of elderly patients hospitalised for acute HF in the settings of care of most frequent management: cardiology, internal medicine and geriatrics.
Methods: Data derived from the ATHENA retrospective observational study which included elderly patients (≥65 years) admitted for acute HF to the emergency department of a tertiary University teaching-hospital and transferred to the above described settings of care in the period 01.12.2014–12.01.2015.
Results: 342 patients composed the study population; 17.8% were hospitalised in cardiology, 17.3% in geriatrics and 64.9% in internal medicine. Mean age was 83.7 years, females were 54.1%. 28.1% of the patients had not performed any echocardiographic evaluation during hospitalization. In 44% of patients, no information regarding body weight measurement was collected during hospitalisation. In patients with HF with reduced ejection fraction prescription rates

for beta-blockers, ACE-inhibitors/angiotensin receptor blockers and mineralocorticoid receptor antagonists were 77.3%, 58.6% and 49.3% respectively, without significant differences across the considered settings of care. A clinical FU at the discharge was scheduled only in 16.0% of the total study population, 70.0% in cardiology, 7.0% in geriatrics and 5.0% in internal medicine; p=0.001).
Conclusions: In elderly patients hospitalised for acute HF a low adherence to current international guidelines recommendations regarding HF management could be observed. This was particularly evident for non-pharmacological strategies that are known to reduce the risk of rehospitalisation.

O-084
Screening for frailty in the Emergency Department: The utility of The SHARE-FI in predicting outcomes in a cohort of older patients

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Introduction: Greater numbers of older patients are accessing hospital services. Specialist geriatric input at presentation may improve outcomes for high risk patients. The Survey of Health, Ageing and Retirement in Europe Frailty Instrument (SHARE-FI) was developed for use in the community but has been shown to be useful in the emergency department (ED). To measure frailty, review its prevalence in older patients presenting to ED and compare characteristics and outcomes of frail patients with their non-frail counterparts.
Methods: Prospective cohort study was carried out with prespecified convenience sampling of those aged ≥70 years presenting to ED on a 24/7 basis, from January-August 2014. Patient characteristics were recorded using symphony® electronic data systems; SHARE-FI assessed frailty. Cognition, delirium and six and twelve month outcomes were reviewed.
Results: Older patients were more likely to die (OR2.34, 95% CI1.30–4.21, p=0.004) and less likely to be alive and at home at twelve months (OR=0.49, 95% CI: 0.23–0.83, p=0.009). Patients with dementia (OR=0.24, p=0.005) and on ≥5 medications (OR=0.37, 95% CI: 0.16–0.87, p=0.022) had a lower likelihood of being alive and at home at twelve months. Frailty was not associated with a significant difference in mortality rates (OR=0.89, 95% CI:0.58–1.38, p=0.614) or being alive and at home at twelve months (OR=1.07, 95% CI: 0.72–1.57, p=0.745).
Conclusions: This study suggests SHARE-FI was an inappropriate screening instrument in ED. It may be more useful to treat all older patients as being at risk of adverse outcomes. New screening tools to assess older patients presenting to hospital are required.

Area: Longevity and prevention

O-085
The obesity paradox: A result of mismeasurement?

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Introduction: In middle aged cohorts, being overweight (BMI 25–29.9) or moderately obese (BMI 30–34.9) is clearly associated with increased mortality, but in later life reduced mortality has been reported. This opposing mortality risk is termed the obesity paradox in older people. We aimed to examine this paradox by assessing the impact of smoking, conditions associated with weight loss, and measurement errors associated with BMI, in very large cohorts.
Methods: We used electronic medical records (from Clinical Practice Research Datalink) for nearly 1 million primary care patients aged ≥60 years, with 14.9 years of follow-up. We also used UK Biobank data, including 500,000 volunteers aged 40 to 69 years, with 8 years of follow-up.
Results: Mean BMI declines progressively for 14 years before death, potentially biasing risk estimates. Mortality is increased for moderately obese patients aged ≥60 years after properly accounting for smoking and conditions associated with weight loss. The risk paradox is explained further by central adiposity not being measured by BMI. Measures combining BMI and waist-to-hip ratio classified patients more accurately: there were major excess risks for mortality and incident cardiovascular disease in overweight or moderately obese but otherwise healthy 60 to 69 year olds.
Conclusions: In later life, people within BMI defined overweight or obesity are at substantially increased risk for mortality and incident cardiovascular disease after accounting for confounding conditions. Calls to amend policies for obesity prevention and to promote healthy ageing are unwarranted.

Area: Metabolism and nutrition

O-086
Associations between dietary intake and resistance exercise with change in body composition and physical function among elderly

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Background: Age related changes in body composition and physical function are important factors in healthy aging. Dietary intake and physical resistance exercise (RE) can affect these changes. The aim of this study was to investigate the associations between dietary intake and resistance exercise with change in body composition and physical function (PF) among elderly Icelanders.
Method: Intervention study with RE for 12 weeks. Participants were community dwelling, aged 65 years and older (60% females). Body composition was measured using DXA. Quadriceps- and grip strength was measured. PF was measured as timed up and go test (TUG) and the 6 minute walk for distance (6MWD). Three day weighed food records were analysed.
Results: On average, all outcome parameters improved significantly after the RE intervention. However, 19% lost lean mass (LM) after the intervention. Where those who lost LM had lower protein intake compared with those who gained LM (80±25 vs. 69±21 g/day, P=0.012 or 0.98±0.27 vs. 0.84±0.24 g/kg body weight, P=0.001), no difference in age, gender, medication or physical activity was found between those who gained LM or lost LM. Participants who did not improved PF had lower energy intake (1656±502 vs. 1870±515 kcal/day, P=0.060)
Conclusion: A many studies have demonstrated the beneficial effect of progressive RE on LM, strength and PF among older adults. However, few studies have looked at association with dietary intake among non-respondents participants. Our study underlines the importance of sufficient energy and protein intake in the maintenance of LM, strength and PF in elderly.

Area: Acute care

O-087
Which are the main precipitating causes of heart failure in elderly patients? Real world evidence from the ATHENA registry

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Introduction: Whilst clinical trials and cardiological clinical registries identify cardiovascular pathologies as the main precipitating cause leading to hospitalisations for Acute Heart Failure (AHF), "real world" administrative data suggest that precipitating causes may be mainly non-cardiovascular. Our purpose was to compare precipitating causes of Heart Failure (HF) in elderly patients hospitalised for AHF in three different, common care settings: cardiology, internal medicine and geriatrics.
Methods: Data derived from ATHENA retrospective observational study which included elderly patients (≥65 years) presenting with a diagnosis of AHF to the emergency department of a tertiary University teaching-hospital and subsequently transferred to the cardiology, internal medicine and geriatric wards in the period 01.12.2014–01.12.2015.
Results: Study population was formed by 342 patients; 17.8% of them were hospitalised on the cardiology ward, 17.3% on the geriatrics ward and 64.9% on internal medicine. Mean age was 83.7 years old, females were 54.1%. Pneumonia was found in 39.7% of the cases and was more prevalent on geriatrics (52.1%) and internal medicine (42.6%) settings compared to the cardiology one (20.0%), P=0.001. Sepsis also had a greater focus in geriatrics (4.2%) and internal medicine (8.1%) than in cardiology (no cases), P=0.001. Acute Coronary Syndrome (ACS) caused hospitalization in 6.2% of individuals, reaching a significantly higher prevalence in cardiology (21.7%) compared to geriatrics (2.1%) and in internal medicine (2.5%), P=0.001.
Conclusions: Precipitating causes of HF in the elderly population hospitalised for AHF are mainly non-cardiovascular, as pneumonia and sepsis, and they seem to be criteria for admission onto different care setting.

Area: Metabolism and nutrition

O-088
Tailored nutritional guidance has positive effect on energy and protein intake of geriatric patients after discharge: a randomized controlled trial

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Introduction: Malnutrition is common among hospitalized older adults and nutritional status may deteriorate during hospital stay. Recovering from acute disease requires good nutritional status and adequate energy and protein intake.
Methods: 24-week randomized, controlled trial was used to investigate effectiveness of tailored nutritional guidance on nutrient intake after discharge among independently living older adults with normal cognition. MNA was used to assess nutritional status and three-day food diaries collected after discharge to assess nutrient intake. Nutritional guidance included at least one home visit with registered dietitian, personalized nutritional care plan, written material and ONSs when needed.
Results: 41 (73% women) older adults, age 76 y (SD 6) were recruited. 61% of all participants were at risk for malnutrition and only 17% reached the recommended protein intake of 1.2g/kg. Mean energy intake increased in the intervention group (I) from 1210 kcal (SD 359) to 1655 kcal (SD 468) and decreased in the control group (C) from 1532 kcal (SD 477) to 1425 kcal (SD 412) ($P<0.05$). Mean protein intake increased from 57 g (SD 19) to 76 g (SD 20) in I and decreased from 75 g (SD 25) to 65 g (SD 22) in C ($P<0.001$).
Conclusions: The risk of malnutrition, poor energy and protein intake are common among geriatric patients after discharge. Tailored nutritional guidance and use of ONSs improve energy and protein intake which are essential when recovering from acute disease.

O-089
Agreement between ESPEN criteria and MNA in the diagnosis of malnutrition in elderly patients with hip fracture

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Introduction: Recently, new malnutrition diagnosis criteria have been proposed by ESPEN (European Society of Clinical Nutrition and Metabolism) in patients with positive nutritional screening. Validation is still advocated. The objective of this study was to describe the agreement of two methods of nutritional assessment: Mini Nutritional Assessment (MNA) and the new ESPEN criteria.
Methods: Patients admitted to the Orthogeriatric Unit above 65 years. During the first 48 hours from admission, a nutritional assessment was carried out: MNA-SF as a screening tool, and when positive, complete version of the MNA and the ESPEN criteria method were applied. A monofrequency Akern® bioimpedance was used to measure the fat free mass index (FFMI). The agreement was determined by Kappa index.
Results: 213 patients were evaluated. 42.7% (91) were at risk of malnutrition. The complete version of the MNA in this subsample showed a malnutrition prevalence of 14.3% – n=13 – (score <17) and 84.6% – n=77 – (when a score <24 was considered). The prevalence of malnutrition with ESPEN criteria was 30.8% – n=28; 14 patients with lost values of FFMI and those from the estimation of weight loss 3 months earlier. Considering a MNA score <17, the kappa index for malnutrition diagnose was 0.207 (p=0.038). When a MNA score <24 was used, the kappa index for malnutrition diagnose was 0.043 (p=0.498).
Conclusions: The two methods evaluating the nutritional status show a poor or very poor agreement in elderly hip fracture patients. To test the value of each method it is mandatory to assess their relationship with disability and clinical events (mortality, length of stay and complications).

Area: Acute care

O-090
HFmrEF in elderly patients: the pathogenetic role of ischemia. Real world data from the ATHENA registry

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Introduction: Recently, the ESC has recognized the presence of an "area" of patients with ejection fraction between 40 and 49% defined as "mid-range" Heart Failure (HFmrEF).
Methods: Data derived from ATHENA retrospective observational study (patients ≥65 years) admitted with diagnosis of AHF (worsening or de novo) to the Emergency department in the period 01.12.2014–01.12.2015.
Results: 246 patients were included: (HFmrEF 19.5%, HFrEF 30.5%, HFpEF 50.0%). HFmrEF and HFpEF shared similar characteristics: mean age 83.8–84.5 versus 79.9 in HFrEF, p<0.001, prevalence of females 41.7%, 67.5% versus 32.0%, p<0.001. History of coronary disease was more frequent in HFmrEF (41.7%) and HFrEF (36.0%) than HFpEF (19.5%), p=0.004, as well as the prevalence of previous PCI (27.1%, 25.3% and 11.5% respectively, p=0.014). Ischemic aetiology was prevalent in HFmrEF (47.9%) and HFrEF (40.0%), while in HFpEF was only 28.5%, p=0.038. Acute coronary syndromes represented (in HFmrEF), was the most frequent precipitating cause (11.6%) and coronary angiography was the procedure most frequently performed in elderly with HFmrEF (12.5%) and in those with HFrEF (22.7%), higher than those reported for patients with HFpEF (6.5%), p=0.004.
Conclusions: These data suggest that ischemia plays a role in the pathogenesis of HFmrEF. Patients with HFmrEF could be a group consisting of a subgroup of patients with HFpEF that have experienced a reduction of ejection fraction and a subgroup of patients with HFrEF that improved part of the LVEF: (HFrecEF, Recovered Ejection Fraction).

Area: Comorbidity and multimorbidity

O-091
Pre-stroke mobility associated with worse outcomes in dementia patients with stroke – data from the Swedish Dementia (SveDem) and Stroke registries

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Stroke is a common cause of morbidity and mortality in patients with dementia. Pre-stroke dementia is associated with worse outcomes, including a higher rate of disability and mortality. Baseline mobility is an important predictor of functioning and mortality after stroke.
Objectives: To assess the role of mobility and dementia as predictors of level of residential assistance, dependency for mobility and mortality in older patients with stroke. Methods: This is a longitudinal cohort study based on SveDem, the Swedish Dementia Registry and Riksstroke, the Swedish Stroke Registry. 1689 patients >65 years old with dementia registered in SveDem and suffering a first stroke between 2007 and 2014 were matched with 7973 non-dementia controls with stroke.
Results: Pre-stroke dependency in activities of daily living and mobility was worse in dementia patients than non-dementia controls. Patients with dementia were more likely to be discharged to nursing homes after a stroke than non-dementia controls (51 vs 20% p<0.001). After the stroke, mortality at three months was higher in dementia patients (31 vs 23% p<0.001) and fewer were living at home without help (21 vs 55%; p<0.001). Patients who moved independently before stroke were more often discharged home (60% vs 28%) and had lower mortality. In adjusted analyses, pre-stroke mobility limitations was associated with higher odds for poorer mobility, needing more residential assistance, and death.
Conclusion: Patients with mobility impairments and/or dementia present a high burden of disability after a stroke. There is a need for research on stroke interventions among these populations.

O-092
Risks of longer term proton pump inhibitor exposure in 228,752 older adults

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Introduction: Proton Pump Inhibitors (PPIs) are commonly prescribed and often continued in older adults, with limited understanding of longer term risks. We aimed to estimate the risk of fragility fractures (FFs), late community acquired pneumonia (CAP), and cardiovascular disease (CVD) in older adults exposed to PPIs for ≥1 year.
Methods: We conducted retrospective cohort analyses in adults over 60 years old using primary care records (CPRD) linked to hospital records (HES). We analysed: i) 86469 patients to estimate the 4-year FF risk; ii) 150100 to estimate the second-year CAP incidence after PPI start; iii) 228752 clopidogrel-free patients to estimate the 4-year CVD (myocardial infarction [MI] and ischaemic stroke [stroke]) risk; and relevant 1:1 age- and gender-matched controls. We used a statistical difference-in-difference methodology (the "Prior Event Rate Ratio" [PERR]) to adjust for measured and unmeasured confounding, as well as traditional propensity-score-adjusted Cox's models.

Results: PPI patients were at greater longer-term risk of: i) Fragility fracture (PERR-adjusted Hazard Ratio [HR]: 1.27, 95% CI: 1.16 to 1.34); ii) Community Acquired Pneumonia (HR=1.82, 1.27 to 2.54); iii) MI (HR=2.11, 1.79 to 2.54) and stroke in aspirin treated patients (HR=1.43, 1.12 to 1.94), with no increased stroke risk without aspirin exposure (HR=1.01, 0.83 to 1.17). Several sensitivity analyses conducted in relevant sub-groups and/or using alternative statistical methods provided consistent results.
Conclusions: These results raise questions about the safety of current widespread prescribing practices of PPIs in older patients.

Area: Organisation of care and gerotechnology

O-093
Benchmarking European Community care delivery on costs and quality of care, a novel approach

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To deliver adequate care in the future to the rapidly ageing population and avoid excessive costs, reform of healthcare systems is necessary. Evidence-based restructuring of systems should build on reliable benchmarks of quality and costs of care, which are lacking. A novel benchmark method on organizational efficiency in community care was developed with the IBenC project.Longitudinal data collection was performed among 2884 community care clients (six countries, 38 organizations) by means of the comprehensive geriatric assessment instrument interRAI-HC. Baseline and six month follow-up assessments were used. The 11-point Independence Quality scale (IQS) and Clinical Balance Quality scale (CBQS) expressed quality, respectively reflecting quality of care aimed at functional independence and engagement, and at functional improvement. Higher scores indicate better quality. Six month cost of care were estimated by valuing resource utilization with Dutch standard costs. Case-mix adjustments were applied.Organizational quality varied between poor to good: IQS scores varied between 2 and 7, CBQS between 4 and 8. Mean adjusted costs were €21.004 (range €14,300-€24,209). Quality and cost outcomes were integrated in the IQS-index and CBQS-index. Index values of 1 indicate average quality against average costs, higher values reflect better organizational efficiency. IQs-index ranged between 0.49 to 1.74 and CBQS-index between 1.00 and 1.66. The indexes had high face-validity compared to the plotted costs and quality and discriminated organizations based on their efficiency. The indexes permit for a novel benchmark approach, opening up possibilities for unexplored areas of research and knowledge in organizational performance and restructuring care systems.

O-094
City4Age: unobtrusive detection of mild cognitive impairment and frailty by harnessing sensor technology and big data sets in smart-cities

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City4Age aims to demonstrate the potential of large datasets obtained from sensing technologies in smart-cities' contexts, to adopt preventing actions for older people [1]. In particular, the challenge is to demonstrate that such datasets can be harnessed to early detect the onset of Mild Cognitive Impairment (MCI) and frailty – ideally before signs and symptoms become evident – and to consequently enact more effective interventions [2]. A fundamental assumption is that current technology allows "unobtrusive" detection, without the need to place significant burden on the monitored person or on her carers [3]. To achieve this goal, City4Age is applying the following approach:- review of established scales, commonly used in geriatrics to measure MCI and frailty onset (e.g. such as the Lawton IADL scale or the Fried Frailty Index) [4] – identification of relevant behaviours implied in such scales (e.g. communication, shopping, use of transportation, cultural/social activities, engagement in physical activities, gait/motility progression, etc.) – review and classification of data types that can be collected through sensors and from smart-cities' datasets, and used to reconstruct the above behaviours and to discover relevant changes that may have predictive value in relation to the inception of MCI/frailty Currently, the Project has successfully completed the above actions and defined a risk model that is, at the same time, easy to understand by geriatricians and technically feasible. Since April 2017 such model is under testing at 6 different Pilot cities (Athens, Birmingham, Lecce, Madrid, Montpellier and Singapore), involving 200 elderly participants, monitored for 6–12 months.
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References:
[1] Paolini P et al, City4Age: Smart Cities for Health Prevention, IEEE Second International Smart Cities Conference, Trento, September 2016.
[2] Lathia N et al, Smartphones for Large-Scale Behavior Change Interventions, IEEE Pervasive Computing, July 2013.
[3] Rantz MJ et al, Using Sensor Networks to Detect Urinary Tract Infections in Older Adults, IEEE 13th International Conference on e-Health Networking, Applications and Services, June 2011.
[4] Memory Training e Ginnastica Mentale per l'anziano, Monica Bacci, CESI, Roma, 2000.

O-095
Functional status and social support network as risk factors for hospital readmission in Heart Failure

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Introduction: Hospital readmission in chronic heart failure (CHF) is widely recognized as a quality indicator of health care. Sociodemographic factors that supplant the power of medical action, are sometimes neglected in assessing the risk of readmission. The set of social disadvantages surrounding the patient have important implications and should be considered at hospital discharge.
Aim: The aim is to examine the impact of demographic characteristics, functional status and social support network on hospital readmissions for CHF.
Methods: Retrospective study of total admissions at an Internal Medicine Department of a Portuguese hospital, with the main diagnosis of CHF. Data was obtained through the SClinico system and processed by SPSS 24.0® software. The demographic characterization was according to gender and age; functional status according to Katz Scale; social and hospital support network by type of residence, type of support (family/institutional/none) and destination after discharge (with or without referral for external consultation). For hospital readmission were considered hospitalizations with the same diagnosis in the following 12 months.
Results: During one year, 336 admissions with the main diagnosis of CHF were reported, 9.3% of the total hospitalizations.

The readmission rate within 12 months was 49.7%. Among the patients 61.3% were female, with a mean age of 79.9±10 years. The functional status was associated with hospital readmission (X2 (4) =32.3, p≤0.05), unlike gender, age and the social support network. Contrary to expectations, the referral for external consultation was associated with more readmissions (OR=2.47, [1.55–3.94], IC 95%).
Conclusion: Functional status appears to be a major risk factor for hospital readmission in CHF. The recognition of patients' sociodemographic disadvantages allows better continuity of care after discharge. Future research is needed to define sociodemographic indicators and to measure their role on readmission risk.

O-096
Comparing the quality of discharge documentation between specialist elderly care wards and acute medical or surgical wards

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Objectives: We wanted to identify if there were differences in the quality of documentation if a patient was discharged from specialist ageing and complex medicine (ACM) wards in comparison to acute medical or surgical wards (non-ACM).
Methods: Using established national and local guidance, we reviewed the discharge documentation of three ACM wards and three non-ACM wards; a medical admissions unit, a general surgical ward and an orthopaedic ward. Patients aged ≥74 years were included.
Results: 321 records were reviewed. Regarding authorship, 95% of records were written by a team member involved in a patient's care when from an ACM ward in comparison to 84% from general wards. ACM wards performed more highly in documenting the key elements of an inpatient stay; visit summary (98% ACM wards vs. 93% non-ACM wards), investigations (96% vs. 93%), clear list of new diagnoses (69% vs. 57%) and an up-to-date past medical history (65% vs. 38%). If a patient was from a care facility this was documented in 82% of ACM ward summaries compared to 47% of summaries from non-ACM wards. In contrast, discharge documents from non-ACM wards recorded changes to medication regimes with greater accuracy (84%) than those from ACM wards (79%).
Conclusions: Across most domains, discharge summaries from ACM wards were of higher quality when compared to those from non-ACM wards. Standardising the approach to discharge documentation across a variety of inpatient wards will improve continuity of care for our elderly population.

O-097
Robots in care for older people: Opinions of potential end-users

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Introduction: The ENRICHME project - Enabling Robot and assisted living environment for Independent Care and Health Monitoring of the Elderly (Horizon 2020 Programme, No: 643691C), uses a mobile social robot for long-term interaction and monitoring of an older person with MCI, with the aim to optimise their independence. We used focus group discussions to collect opinions about the robot-related requirements of older people, as well as their formal and informal caregivers.
Methods: Six focus groups discussions were analysed: one organised in Italy (composed of older subjects attending a day centre, and health workers of a day centre), four in Poland (two with older volunteers, one with professional, and one with informal caregivers), one in Greece (with older participants); all participants were willing to discuss the issues related to the introduction of a robot.
Results: Six areas of interest were identified:
- overall attitudes towards the robot,
- ethical issues,
- the scope of the robot's functions,
- safety issues,
- doubts about the preparedness of older persons for the robot,
- issues related to the introduction of robots into the lives of the elderly.

In general, the expectations towards the introduction of a social robot were positive.
Conclusions: The use of robots by community-dwelling older persons is generally accepted by all participating groups, especially if the robots' introduction is preceded by efficient pre-training. Ethical and practical issues should be taken into account.

O-098
Predicting hospitalisations and emergence visits: Comparing nine risk scores in care dependent elderly from 6 countries: IBenC Study

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Introduction: We compared the accuracy of nine existing risk scores to predict hospitalisations or emergency department visits among older care dependent home dwelling adults.
Methods: We assessed 2884 persons aged 65 or older, who received professional homecare in six different countries in Europe. Main outcome was the occurrence of hospitalisations or Emergency Department visits within 6 months. Nine existing index risk scores were computed using baseline data: (1) The Changes in Health, End-stage Disease, Signs, and Symptoms Scale (CHESS); (2) Detection of Indicators and Vulnerabilities for Emergency Room Trips (DIVERT); (3) Method of Assigning Priority Levels (MAPLe); (4) Identification Seniors At Risk Primary Care (ISAR PC); (5) Emergency admission risk likelihood index (EARLI); (6) Sherbrooke Postal Questionnaire (SPQ); (7) the Elders Risk Assessment (ERA), (8) Community Assessment Risk Screen (CARS), ad (9) Rockwood's Frailty Index. Their accuracy to predict was expressed in the area under the ROC curve (AUC).
Results: 194 older adults were admitted at the ED and/or hospital ward during the six-month study period. The highest AUC value was found for the DIVERT (AUC=0.70) and CARS (AUC=0.69), followed by EARLI (AUC=0.60), CHESS (AUC=0.58), ERA (AUC=0.63), Frailty Index (AUC=0.54), MAPLE (AUC=0.52), ISAR-PC (AUC=0.49) and SPQ (AUC=0.46). Significantly better AUC values were found in persons without a recent admission at baseline for DIVERT, EARLI and CARS risk scores.
Conclusion: DIVERT and CARS were the most promising risk scores: These may help to target preventive interventions in high-risk groups.

Area: Longevity and prevention

O-099
Long-term effects of the LUCAS health promotion and preventive care intervention (RCT) for senior citizens in the community (LUCAS IV/MINDMAP: HORIZON 2020, research and innovation action 667661)

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Introduction: A health-promotion and preventive-care RCT was performed in initially community-dwelling older people without need of nursing-care between 2001–2002 as part of the Longitudinal Urban Cohort Ageing Study (LUCAS). The Intervention-group (IG) participants had the opportunity to choose between the programmes "small-group-session" at a geriatric centre performed by an interdisciplinary geriatric team giving information on healthy ageing, physical activity, healthy nutrition and social participation [1]; "preventive home visit (PHV)" performed by a nurse trained in geriatrics [2] or no programme. The 1-year (y) follow-up (FU) results showed significantly higher use of preventive-services and better health-behaviour in the IG (n=878) than the control-group (CG; n=1,702). After completion of the 1-y FU, the CG had the opportunity to participate in the small-group-session, too.
Methods: Long-term survival-analyses were performed 12y after 1-y FU. ITT-analyses and in addition, for the subgroup of small-group-session participants On-Treatment-analyses were performed.
Results: ITT-Analysis: In the 1y RCT 503 (62.5%) participants of the IG chose small-group-session, 77 (9.6%) persons chose PHV and 224 (27.9%) persons did not choose any. Mean observation-time accounted 10.3y. 313/878 (35.7%) IG-participants and 674/1,702 (39.6%) of the CG died; HR=0.89 [3]. On-Treatment-Analysis: 768 (IG: 503; CG: 265) small-group-session participants were analysed against 1,335 (IG: 224; CG: 1,111) non-participants. Mean observation-time was 10.9y. 194/768 (25.3%) small-group-session participants and 531/1,335 (39.8%) non-participants died; HR<0.001. The results were confirmed after adjustments.
Conclusions: The small-group-session addresses ROBUST older persons (ca.18.4% of the European population >65y), to strengthen functional competence and reserves to proactively prevent/postpone frailty and/or need of nursing-care.
References:
[1] Dapp etal. J Public Health 2005;13:122–7.
[2] vonRenteln-Kruse etal. Z Gerontol Geriatr 2003;36:378–91.
[3] Neumann et al. J Nutr Health Ageing 2017; inprint.

O-100
Reducing physical restraints in a care home company

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Introduction: Half of Spanish Alzheimer patients have suffered, at some point, the use of physical restraints, especially with people with behavioral symptoms and cognitive impairment, especially those that have symptoms of dementia. Prevalence of restraints for elderly residents with dementia has been reported between 21.5 and 41.2% in different Spanish regionsThe main issue of the study was to demonstrate that the use of physical restraints provides no benefits in the care of people with dementia.
Methods: In 2011 Sanitas Mayores started an ambitious program to reduce physical restraints in all of its 41 care homes. After implementing an All Staff training programme and analyzing a sample of more of 7,657 subjects from care homes showed that the frequency of residents having at least one restraint was reduced from 18.1% to 1.0%.
Results: Beside the use of benzodiacepines was reduced, with no significant changes in mortality. The rate of total falls increased from 13.1% to 16.1% with no significant increase in injurious falls. The group of residents most restrained before the program were people with dementia (29%). There was no significant difference in use of bed rails at both study waves when the total samples were compared (43.5% vs. 41.7%). A global decrease in psychotropic medication prescription was recorded in people who had dementia.
Conclusions: It is safe to reduce physical restraints after a training programme delivered to all staff. The reductions of physical restraints was not accompanied by an increase of psychotropic medications prescription

O-101
Predictors of attrition in a large, long-term exercise randomized controlled trial – The Generation 100 study

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Introduction: Dropout from exercise programs both in the real world and in research is a challenge, but few have examined predictors of attrition in exercise randomized controlled trials (RCTs) conducted in the real world, in the general population and over a longer time period – among older adults. The aim of the present study was to examine attrition prevalence rates and predictors, from baseline to 3-years, in a long-term exercise RCT with older adults.
Methods: Generation 100 is the world's largest RCT (n=1567) in a general older population, examining the effect of exercise on mortality in older adults (70–77 years at baseline). All study participants were randomized to either exercise- or control group for 5 years. Self-reported demographics (e.g. education), general health, specific health conditions (e.g. heart disease, memory loss, psychological distress), smoking and physical activity (PA) were examined at baseline. Cardiorespiratory fitness (CRF) and grip strength were directly measured. Multivariate logistic regression analysis was used to identify predictors of attrition.
Results: The total attrition rate was 14.4% (n=225) after 3-years. Significant predictors of attrition in the exercise group were CRF, level of education ($p<0.01$), memory status and PA level ($p<0.05$), and in the control group CRF ($p<0.01$) and memory status ($p<0.05$).
Conclusions: This is the largest study of predictors of attrition in a long-term exercise RCT on older adults. Our findings provide new and important knowledge about older adults potentially at risk of attrition in long-term exercise RCTs.

O-102
Dietary consumption and self-reported health status in older adults. A cross-sectional study

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Introduction: Little is known about the association between dietary consumption and health status in older adults. We investigated the relationship between them.
Methods: We recruited 1394 community-dwelling older adults in Nagano (highest life expectancy in Japan). Food frequency questionnaire and self-reported health condition (physical condition and depressive mood) were asked all participants. Dietary data covered

13 major food groups: fish, meat, eggs, milk, soybeans products, vegetables, seaweeds, potatoes, fruits, fat or oil, snakes, salty foods, and alcohol. Physical condition contains 5 questionnaires, fall, walking distance, one-leg stand, usage of cane and decline of walking speed. Depressive mood also contains 5 questionnaires such as fulfilment in your daily life, a lack of joy, difficulty in doing what you could do easily before, and tiredness. Chi-square tests and regression analysis were done to investigate the relationship between dietary consumption and health status.
Results: Participants' mean age was 76.3±5.5 years, female were 778 (55.8%). Women consumed meat, soy beans products, potatoes, fruits and snakes frequently compared with men. On the other hand, male consumed salty food and drink alcohol frequently. In men, higher meat consumption was related to long walking distance and less depressive mood. In women, higher soybeans products and vegetable consumption were related to long walking distance and less depressive mood. Logistic regression analysis revealed vegetable consumption was significantly connected to favorable effect on both physical conditions and depressive mood.
Conclusion: In older adults, health status might be improved by daily dietary intake such as meat, soy beans products and vegetables.

O-103
Variation in falling and fall risk among community-dwelling older citizens in 12 European countries

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Introduction: The rate of falling among older citizens appears to vary across different countries, but the underlying aspects causing this variation are unexplained. We aim to describe between-country variation in falling and explore whether intrinsic fall risk factors can explain possible variation.
Methods: This was a prospective study of Survey of Health, Ageing and Retirement in Europe (SHARE) data in twelve European countries among community-dwelling persons aged ≥65 years (N=18,596). Socio-demographic factors (age, gender, education level and living situation) and intrinsic fall risk factors (less than good self-rated health (SRH), mobility limitations, limitations with activities of daily living (ADL), dizziness, impaired vision, depression and impaired cognition) were assessed in a baseline interview. Falling was assessed 2-years later by asking whether the participant had fallen within the 6 months prior to the follow-up interview.
Results: There was between-country variation in the rate of falling. The prevalence of intrinsic fall risk factors varied 2–4 fold between countries. Associations between factors age ≥80 years, less than good SRH, mobility limitations, ADL limitations, dizziness and depression, and falling were different between countries ($p<0.05$). Between-country differences in falling largely persisted after adjusting for socio-demographic differences but strongly attenuated after adjusting for differences in intrinsic fall risk factors.
Conclusion: There is considerable variation in the rate of falling between European countries, which can largely be explained by between-country variation in the prevalence of intrinsic fall risk factors. These findings emphasize the importance of addressing intrinsic fall risk in (inter)national fall-prevention strategies, while highlighting country-specific priorities.

Area: Oral and dental health

O-104
Oral pain and discomfort in community-dwelling older people – a randomised 2-year intervention study

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Introduction: Oral pain or discomfort can cause problems in eating, speaking and swallowing affecting the quality of everyday life. The aim of this study was to examine the effect of oral health intervention on the self-reported oral pain or discomfort among community-dwelling people aged 75 years or older over a 2-year period.
Methods: The study was based on subpopulation in Geriatric Multidisciplinary Strategy for Good Care of Elderly People (GeMS) study (2004–2007). In this 2-year randomised intervention study, 279 community-dwelling old people completed the study, 145 person in the intervention group and 134 in the control group. Oral health intervention included individually tailored instructions for oral and/or denture hygiene and healthy oral habits. Oral pain and discomfort were asked by the dentist at the baseline and after one year and two years. Both groups also had the possibility to get basic dental treatment during the study.
Results: In the intervention group, at the baseline 31% (n=45) and at the end 21% (n=30) reported oral pain or discomfort. In the control group, the corresponding figures were 22% (n=30) and 18% (n=24). In the intervention group the main reasons at the beginning of the study were problems with removable dentures (n=16), teeth (n=13) or mucosa/tongue (n=13) and after two years problems with teeth (n=11), removable dentures (n=9) or mucosa (n=5).
Conclusions: Despite the preventive intervention and dental treatment, every fifth of the participants had oral pain or discomfort. The management of oral pain in old people is challenging, a multifactorial treatment approach is often needed.

Area: Infectious diseases and vaccines

O-105
Procalcitonin to individualize antibiotic therapy duration in hospitalized pneumonia in very old population

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Background: Procalcitonin (PCT) may help Physician to reduce duration of antibiotic therapy (ATBt) in pneumonia in adult. However, there was no specific study older population. We performed a Randomized Clinical Trial assessing if PCT serial measurements reduces antibiotic duration in pneumonia (community or nosocomial) in older patients.
Methods: Inclusion criteria were: >80 years old, ATbt <3 days for pneumonia, and had a PCT measurement. After inclusion, PCT was measured every 2 days in both groups (from Day 2 to the end of treatment or discharge). In the PCT group, physician could use PCT levels to stop ATBt according a PCT algorithm, (stop ATBt if PCT <0.25 ng/l and pursues if PCT >0.25 ng/l). Demographic, clinical and geriatric characteristics, and, severity of pneumonia (pneumonia severity index (PSI), CURB 65) at baseline and every 2 days were collected. Diagnosis was confirmed by reviewed Chest

X ray or/and CT Scan. ATBt duration without outcome differences (Day 45) was the first end point.
Results: Final analysis includes 107 pneumonia (57 in control group, 50 in PCT group). All characteristics of patients and severity of pneumonia weren't significantly different; In control group, 86% had a CURB 65 of 2 or 3 and 84% had PSI class IV or V; in PCT group 86% had a CURB 65 of 2 or 3 and 78% had PSI was class IV or V; PCT levels were not significantly different in between both group; Antibiotic duration was significantly shorter in PCT group (8. 4 days ±3.1) than in control group (10.7 days ±3.6) ($p<0.001$). with a good outcome in both groups (>85%). Algorithm was followed for only 52% of PCT group.
Conclusion: PCT algorithm is useful to individualize the duration of ATBt for pneumonia in very old without any impact on outcome and leads to decrease ATBt duration. Further studies need to measure the impact of the limitation of antibiotic use at individual and collective level in this special population.

Area: Pre and post operative care

O-106
Baseline characteristics and clinical outcomes of older surgical persons admitted to a tertiary hospital. Proactive care of older people admitted to General surgery-Salford General Surgery (POPS-GS)

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Introduction: We describe the characteristics of older people admitted to general surgical wards reviewed by an elderly care in-reach service.
Methods: Prospective non-randomised study of consecutive patients >74 years of age requiring admission to general surgery.
Results: Between 08/09/2014 and 28/02/2017 we reviewed 719 consecutive patients, age 81.4±4.6, 55.2% females, 577 emergency (Em) and 142 elective (El). 36% underwent surgery (Em 135- 23.3% El 124- 87.3%), 15.4% non-surgical procedure (Em 102- 17.7% El 9- 6.3%) and 48.5% medical management (Em 340- 58.9% El 9- 6.3%). Most common diagnoses: biliary disease in emergency (22.4%) and cancer in elective admissions (70.4%). There were differences in emergency vs elective regarding independence for basic (78.6% vs 98.6%) and instrumental (52.8% vs 88%) ADLs, mobility with no aids/cane (69.2% vs 92.3%), absence of cognitive impairment (81.3% vs 95.8%), ASA I-II (35.7% vs 51.4%), average medications (8.4 vs 6.2) and comorbidities (5.5 vs 4.6). No differences in individual comorbidities except in emergency patients who suffered more ischemic heart disease (30.2 vs 19), stroke (15.9 vs 7.7) and dementia (12 vs 0.7). Median length of stay was 9 days (8 Em, 10 El); in hospital mortality 5.9% 43/719 (2.1% Em, 6.9% El), 30-day mortality from admission 7.3% 53/719 (Em 8.8%, El 1.4) and 30-day readmission rate 8.8% 60/676 (Em 9.9%, 4.3% El).
Conclusions: Older persons admitted to surgery are multimorbid and take multiple medications. Biliary disease and cancer are the commonest diagnoses. 50% are managed non-invasively. Individuals admitted electively are significantly less complex and experience significantly better clinical outcomes.

Area: Infectious diseases and vaccines

O-107
Elderly patients (>75yo) with infective endocarditis: geriatric, therapeutic and prognostic characteristics before, through and 3 months after the infection course. (Elderl-IE)

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Introduction: 1/3 patient with infective endocarditis (IE) is >75 yo in Western countries with specific features and prognosis, but geriatric characteristics are poorly known. Our aim was to describe geriatric assessment through the infective endocarditis (IE) course and its impact on 3-month prognosis.
Methods: Comprehensive geriatric assessment was performed during the first week after diagnosis of IE (D0) and at 3 months follow-up (M3) over one year in 14 French hospitals.
Results: Prior IE, among the 111 pts (83.1±5.1 yrs, 53% men) included, most patiens lived at home (88%) with a low CIRS-G score (14.1±6.9) and subnormal ADLs (5.1±1.7). At diagnosis (D0), functional status decreased (ADLs 3.2±2.1) with a cognitive (MMSE 20.2±7.2) and nutritional (MNA<17 in 40%) impairment. Intracardiac devices were frequent (valvular prosthesis 31%, PM 22%). Digestive bacteria and Staphylococcus aureus were the most prevalent pathogens. Surgery was indicated in 36 patients (32%) but performed only in 18. Operated patients were more fit: CIRS-G 9.2±4.3 vs 15.2±7, $p<0.001$ and MNA 20.9±4.8 vs 17.4±5.9, p=0.03 than others. At M3, 29 patients were dead (27%) and 27 did not attend the visit (24%). The 55 assessed patients recovered and autonomy was almost back at the initial level (ADLs 4.7±1.8), 80% were back at home. Low ADLs (HR 0.7 (0.5–0.9), p=0.002) and MNA score (HR 0.9 (0.8–1.0), p=0.006) at D0 were associated with a poorer prognosis.
Conclusions: Nutritional and functional impairment are frequent at admission in elderly patients with IE. They are associated with a less aggressive management and a poorer prognosis.

O-108
Management of elderly patients with Clostridium difficile infections: Observational data of the French survey CLOdi

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Introduction: Incidence of Clostridium difficile infections (CDI) is high in hospitalized elderly patients, estimated at 2.28 cases/10,000 day-patients. Risk of recurrence is reported between 10 and 30% at 3 months, and CDI-related mortality varies from 5 to 40%. The main objective of the French survey CLOdi, is to assess prognosis of elderly patients with CDI. We report observational data collected during hospitalization and therapeutic regimen regarding to the European recommendations, published in 2013.
Methods: Prospective observational multicentric study, supported by the French Societies of Geriatrics and Infectious Diseases. From march 2016 to march 2017, patients aged ≥75 presenting with CDI were included in 31 french hospital centers. An online survey focused on clinical criteria of severity, and CDI therapeutic support. A systematic follow-up was performed to report recurrences.
Results: One hundred and eighty-two patients were included with 74% of CDI cases that were nosocomial. Overall 144 (79%) patients presented with at least one severity criteria. CDI episods were treated with metronidazole, vancomycin and fidaxomicin, respectively in 55%, 30% and 15% of patients. Less than half of the patients were treated with the appropriate regimen according to the European recommendations. Thirty-one patients (17%) died during the acute infectious episode and the rate of CDI recurrence was up to 11%.
Discussion: This is the first national survey focusing on CDI in very elderly patients. Rate of recurrence and mortality are close to literature data. Still our results highlight the lacks of knowledge or of adequacy of therapeutic regimen to the guidelines.

O-109
Pertussis incidence in older individuals: Results from the French EPICOQSEN study

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Introduction: In France, vaccination against Bordetella pertussis is recommended in children and young adult (cocooning strategy) but not for people aged 50 years and over (50+). As the duration of protection is limited following vaccination, the 50+ may be infected and participate in the spread of the disease. The aim of this survey was to assess the incidence of B. pertussis (whooping cough) in 50+ in France.
Methods: Between June 2013 and August 2014, participating general practitioners (GPs) using management software Axisanté® were to include all volunteer 50+ patients suffering from a cough lasting 7 to 21 days. Final diagnosis of whooping cough was based on polymerase chain reaction (PCR) (nasopharyngal samples) or on clinical or epidemiological definition. Crude incidence rates were calculated and then extrapolated to France.
Results: 42 GPs included 129 patients (large towns: 38; medium-sized towns; 57, rural areas: 34); 106 samples were collected for analysis. Overall, 30 pertussis cases were diagnosed; 10 were confirmed by PCR and 20 based on clinical and/or epidemiological definitions. Crude incidence rate was 103.6 [95% confidence interval (CI): 69.9–147.9]/100'000 patients (50+) and extrapolated incidence rate was 187.1 [126.2–267.1]; the lowest incidences (77.1 and 131.1, respectively) were observed in large towns.
Conclusions: According to these results, older individuals (50+) may play a role in B. pertussis circulation in France. As whooping cough may be severe in the older population, booster dose of vaccine in 50+ should be discussed. Similar studies are required to elaborate adapted vaccine programs in adult.

O-110
Antibiotic resistance of Escherichia coli in 312 non-hospitalised nursing home acquired urinary tract infection

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Introduction: Urinary tract infection is one the major infection in Nursing home (NH) leading to overuse of antibiotic. The risk of emerging resistance leads to use inappropriate empirical therapy in a high-risk population. E coli is the main bacteria responsible for UTI and bacteraemia and takes part of Intestinal flora in older population. Yet we believe that antibiotic susceptibility of E coli may represent an overview of ATBic susceptibility in NH. The aim of this study was then to analyse ATBic resistance of Escherichia coli in urine culture collected in 14 NH of the same French area.
Methods: Between 2014 and 2015, we retrospectively selected from a community private laboratory all positive urine cultures for E. coli performed in 14 NH because of UTI suspicion. All usual antibiotics were tested.
Results: 312 Positive urines cultures were analysed. Antibiotic resistances were as follow: amoxicillin 52%, amoxicillin+ clavulanate 34%, ciprofloxacine 18%, ceftriaxone 11,8%, cefexime 14,1% and below 5% for penems, gentmamycin, Furan and fosfomycin; there was no difference in between NH.
Discussion and conclusion: Regarding the high level of resistance Amoxciclin, coamoxiclav can no longer be used as empirical treatment; of concern, resistance to 3rd cephalosporin generation, becoming higher than at the university Hospital of the area. This suggests that NH may act as a reservoir of multidrug resistance bacteria; Yet, the surveillance of the resistance is critical in NH to better guide the empirical therapy.

Area: Pre and post operative care

O-111
Total transfusion requirements in hip fracture patients from emergency department to geriatrics: retrospective validation of a restrictive regimen. The UPOG-TRF1 study

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Introduction: In the elderly, management of anaemia and blood transfusion is still a matter of debate in hip fracture (HF). According to the FOCUS study (2011), we evaluated the association between restrictive transfusion strategy and cardiovascular complications during hospitalizations for hip fracture in a dedicated unit of perioperative geriatric care (UPOG).
Material and methods: All patients >70 years old admitted for HF to our emergency department were included in our time series analysis study. Patients with multiple, metastatic or periprosthetic fractures were excluded. We used a liberal strategy (LS) (Goal: hb level ≥10 g.dL-1) from July 2009 (the opening of UPOG) until December 2011 and a restrictive strategy (RS) (Goal Hb level ≥8 g.dL-1 or transfusions according to symptoms) from January 2012 until June 2016. The primary endpoint was in-hospital acute cardio-

vascular complications (acute heart failure (AHF), acute coronary syndrome (ACS), acute atrial fibrillation (AF) or stroke). Secondary endpoints were in-hospital 6-month mortality rate, transfusions and infections.
Results: 667 patients were included: 193 in the LS group, 474 in the RS group. The change of transfusion regimen for a RS was associated with a reduction in acute cardiovascular complications (21 vs 34%, $p<0.01$), including AHF (10 vs 19%, $p<0.01$) and ACS (8 vs 17%, $p<0.01$), and a UPOG transfusion reduction (31 vs 50%, $p<0.01$).
Conclusion: In elderly patients with consecutive hip fracture, a change to restrictive strategy of transfusion is associated with fewer cardiovascular complications and transfusion with no effect on in-hospital and long-term mortality

Area: Geriatrics in organ disease

O-112
Analysis of a national dataset: Single kidney transplant outcomes in recipients over 65

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Introduction and aims: It is well established that patients with end-stage kidney failure that receive kidney transplants have huge improvements in life expectancy compared with the alternative treatment of dialysis. However, the risks versus benefits of kidney transplantation become less clear with increasing age. With our aging population and many patients in their 70's and 80's are receiving transplants yet they are often excluded from clinical research trials. Therefore, I intend to look at the current practice of transplantation in elderly patients in the UK and determine how recipient age affects clinical outcomes in the contemporary era of transplantation practise. Results from this study will hopefully aid decision making into the optimal allocation of these precious resources.
Method: This nationwide population cohort analysis used the NHS Blood and Transplant Registry dataset for all deceased donor single kidney transplants to adults aged 18 and over performed in the UK between 2003 to 2015. We originally stratified cases into recipients aged 18–40, 41–59, and 60 and older and then undertook further subgroup analysis focusing on patients over 60, using the following age bands ($1\leq59$, 2=60–65, 3=66–70, 4=71–75, 5=$76>$). Patient and graft survival outcomes were assessed using Kaplan Meier curves and Cox regression models, while delayed graft function (DGF) was assessed using binary logistic regression.
Results: There were 18,769 transplants in our study cohort, with the median age for recipients 48, and age groups were as follows; 40 and under (n=4712), 41–59 (n=8968), and 60 and over (n=5055). In unadjusted analyses, graft survival differed significantly across the age groups ($p<0.001$). Cox regression analysis showed graft survival was significantly better for the age group 41–59 years (Hazard Ratio [HR]: 0.793, $p<0.001$) compared with the over 60's group. However, there was no significant difference between graft survival of the over 60's compared to the under 40's [HR=0.984, p=0.755]. Patient survival between the three groups confirmed reduced patient survival with HR 0.143 ($p<0.001$) and HR 0.353 ($p<0.001$) for the ages under 40's and 41–59 respectively. Delayed graft function varied significantly between the age groups (40 and under, 23.4%; 41–59, 28.1%; 60 and over, 33.1%, $p<0.001$). Mean creatinine among surviving kidneys was higher in the 60 and over groups (142 mmol/l) versus the 41–59 group (139 mmol/l) and 40 and under (138 mmol/l) ($p<0.001$). Further stratification of age groups 60–65 (n=2396), 66–70 (n=1496), 71–75 (n=679), and >75 (n=148) showed worse outcomes for creatinine, delayed graft function, graft and patient survival for the over 75 groups compared to other "older" adults.
Conclusion: Even in the contemporary era, increasing recipient age remains a predictor of inferior clinical outcomes graft survival, adding a layer of complexity into the decision of how best to allocate such scarce resources. In the literature, there is much heterogeneity in defining at the elderly and therefore we lack clear guidelines on risk of kidney transplantation stratified by recipient age. In our analysis, we highlight this difficulty by showing the gradual stepwise decrease in graft survival and the unusual pattern of delayed graft function amongst the 60 and over group. Therefore, we recommend further research into clinical outcomes among the 60 and over group and consideration should be given for targeted research for age-adapted immunosuppression to optimise outcomes for older kidney transplant recipients.

O-113
IGF-1 pathway in the regulation of Nox4 ROS production in chondrocytes: Osteoarthritis physiopathology

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Introduction: Osteoarthritis (OA) is characterized by a cartilage dysregulation, a degenerescence of the chondrocytes with oxidative stress (OS) involvement. Nox 4 isoform dependent reactive oxygen species (ROS) production is one of the triggers for the matrix metalloproteases (MMPs) synthesis and extracellular matrix (ECM) degradation. IL-1β could induce OA conditions. Insulin-like Growth Factor-1 (IGF-1) is another key regulator in human articular chondrocytes. The main objective of the study was to assess IGF-1 stimulation on MMPs synthesis in chondrocytes immortalized cell line C-20/A4.
Methods: We used human C-20/A4 chondrocyte cell line. Nox4 overexpression was performed with retrovirus (RV) Nox4. Rv Nox4 C-20/A4 stimulation was performed using IL1-b 20ng/ml or IGF-1 200ng/ml. Quantitative RT-PCR was used to assess MMP 1, 9, 13, Nox 4 expression level.
Results: Human IL-1β stimulation induced MMP-1 -13 and -9 mRNA rate elevation. IGF-1 cell stimulation induced MMP-9 peak at 4 hours and an increase of MMP-13 mRNA level sevenfold at 24 hours. The effect seemed to be Nox4 dependent.
Conclusions: We showed for the first time that IL-1β induced MMP-9 by a Nox 4 dependent pathway. High concentrations IGF-1 induced MMP-9 and MMP-13 mRNA synthesis, trigger of catabolism. IGF-1 pathway is interesting since Klotho anti-ageing protein has at least two ways to participate in OA pathway. Klotho is known to inhibit Insulin/IGF-1 pathway and to enhance cellular protection against OS by inducing transcription of anti oxidant enzyme as Mn Superoxide dismutase. Klotho could be a protein of interest for future OA treatment.

O-114
Analyzing kidney impairment in the elderly

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Introduction: Chronic Kidney Disease (CKD) is a disease with a high prevalence in people over 65 years old. It's 23.6% in Spain, 35.7% in Canada, 35.8% in Finland and 23.4% in the USA [1,2]. The most widely accepted method for measuring renal function is glomerular filtration (GFR), for which different formulas have been developed (MDRW, CKD-EPI, Cockroft Gault (C-G), BIS1), although none have been validated in a population older than 70 years or overestimate the true glomerular filtration rate in subjects over 65 years. In 2011 was created a new formula, called HUGE formula (hematocrit, urea and gender). It will help to assure if the GFR is reduced below 60

ml/min, is due to a physiological process associated with aging or due true CKD [3].
Objectives: To evaluate the sensitivity (S) and specificity (E) of the different formulas (MDRW, CKD-EPI, CG, BIS1) to diagnose CKD. Evaluate if the HUGE formula has predictive value in people over 90 years.
Methods: Prospective longitudinal cohort study. Study the characteristics of patients over 90 years seen in the out patient clinic between 2015 and 2016 in Huesca. Also Socio-demographic data, comorbidity, analytical results and drugs were recorded. All collected data was analyzed with Statistical analysis SPSS 23.
Results: A total: 288 patients with age: 94.5±2.4 years, 69.8% were female, survival in first year of 81.3%. Comorbidities: HTA 78.5%, DM 29.2%, dyslipidemia 45%, anemia 35.7%. We evaluated (S) and (E) of each formula twice during the study: At the beginning of the study, comparing all the formulas against the CKD-EPI obtaining: MDRW4: S: 77.3% and E: 100%. C- G: S: 100% and E: 10.7%. BIS1: S: 100% and E: 20.4%. Throughout the follow-up year, comparing all the formulas against the CKD-EPI from the beginning of the study obtaining; MDRW4: S: 82.9% and E: 93.5% and CKD-EPI: S: 95.9% and E: 74.2%. According to the HUGE formula of patients with GF below <60 ml/min (48.6%) had a physiological deterioration associated with aging. CKD identified by HUGE formula was associated with higher mortality at one year (p=0.003).
Conclusions: It is confirmed that despite different and new formulas for estimating glomerular filtration rate, CKD-EPI continues to be the most sensitive and specific even in older patients.Current available formulas can overestimate the diagnosis of CKD, so it is advisable to apply the HUGE formula in a complementary way, which also gives us prognostic value.
References:
[1] Otero A, Francisco ALM De, Gayoso P, García F, Study E. Prevalence of chronic renal disease in Spain: Results of the EPIRCE study. Rev Soc Española Nefrol. 2010;30(1):78–86.
[2] Martín De Francisco A., Piñera C, Gago M, Ruiz J, Robledo C, Arias M. Epidemiología de la enfermedad renal crónica en pacientes no nefrológicos. SEN. 2009;29:101–5.
[3] Heras M, Fernández-Reyesa M. Nuevas herramientas para abordar la función renal en ancianos: la ecuación Berlin Initiative Study y la fórmula hematocrito, urea y género. Med Clin (Barc). SEGO; 2016;146(10):450–4.

O-116
Low diastolic blood pressure increases risk of cardiovascular events in the vascular frail

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Background: In older age, a low diastolic blood pressure (DBP) has been associated with increased risk of cardiovascular events, especially in frail older people. A potential mechanism might be that low DBP leads to inadequate perfusion of vital organs due to a 'frail' vascular system. Here, we tested the hypothesis that low DBP is associated with a high risk of cardiovascular events in people with a previous history of cardiovascular disease, as a proxy of vascular frailty.
Methods: 5,804 participants (mean age 75 years) from the PROspective Study of Pravastatin in the Elderly at Risk (PROSPER) who as part of the trial were intensively monitored for an average period of 3.2 years. Baseline DBP was categorized in low (<70 mmHg), normal (70–90 mmHg) or high (>90 mmHg). Cox proportional hazards analyses were used to estimate hazard ratio (HR) with 95% confidence intervals (CI) for the association of DBP with cardiovascular events. Analyses were stratified for cardiovascular history.
Results: Participants with low DBP had an 1.24-fold (1.04; 1.49) increased risk of cardiovascular events compared to those with normal DBP. After further adjusting for cardiovascular factors, this association attenuated to 1.05 (0.86; 1.28). A previous history of cardiovascular disease significantly modified the relation between DBP and risk of cardiovascular events (p-interaction = 0.042). In participants without a history of cardiovascular disease, DBP was marginally significant associated with a increased event risk (HR (95%) per 10 mmHg increase in DBP 1.08 (0.99; 1.18), p-value = 0.07), whereas in participants with a history of cardiovascular disease higher DBP was associated with a decreased risk of cardiovascular events (HR (95%) per 10 mmHg increase in DBP 0.92 (0.85; 0.99, p-value = 0.018). These risk estimates were independent of potential confounders, including classical cardiovascular risk factors.
Conclusion: The association of DBP with cardiovascular events in older people varies upon their previous history, showing that in participants who are vascular frail (pre-existing cardiovascular diseases) lower DBP associates with an increased risk of future cardiovascular events.

Area: Urology and continence management

O-117
Recurrent urinary retention: 6 months follow-up of elderly patients who benefited an alternative treatment to the indwelling catheter after a multidisciplinary team board

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Introduction: The indwelling urinary catheter (IUC) is over used on the elderly. The aim is to analyze the success rate of alternative treatments (AT) to the IUC at 6 months follow up.
Methods: A standardized multidisciplinary team board was established to screen patients, over 70y, who can benefit from an alternative treatment option to IUC, using comprehensive geriatric assessment. We evaluated success of AT (defined by the lack of urinary retention at 7 days, 1, 3 and 6 months) and overall death rates.
Results: Sixty-one patients were enrolled with a mean age of 87y (women: 42.6%). Alternative technics were offered to 62% (n=38), including 23 catheter withdrawals, 7 thermo-expandable intra-prostatic stents, 8 prostatic photovaporizations. Overall, the success rate was 92.1% at 7 days and raised up to 100% at 1, 3 and 6-month follow-up. The IUC group patients were significantly older (89.3 vs 85.3y, p=0.021), very dependent (ADL <2, 78.3% vs 39.5%, p=0.03) and with neurologic comorbidities (78.3% vs 52.6%, p=0.045). The global rate of death of the cohort were at 1, 3 and 6 months: 6.6% (n=4), 21.3% (n=13), 36% (n=22). At 6 months, the rate of death in the IUC group was higher (65% vs 18.4%, p=0.01). In univariate analyzes, predictive factors of a 6-months death were neurologic comorbidities (HR: 4,3 [1.2–14.9], p=0.023), a dependence (ADL<2) (HR: 4.9 [1.5–16]) and the IUC (HR: 5.5 [1.8–17], p=0.003). In multivariate analyzes, the factors were a dependence (ADL<2) (HR: 3.9 [1.1–13.4], p=0.034) and the IUC (HR: 4.4 [1.4–14.5], p=0.014).
Conclusion: The multidisciplinary analysis may offer a better chance to deal with IUC in elderly people with a steady global success rate of 62% catheter withdrawals at 6 months. The elevated rate of death in IUC group highlight the frailty of dependent patients and data is needed to report the relation with IUC.

Late Breaking Abstracts – Oral presentations

LB-001
Genetic variants associated with physical performance and anthropometry in old age: a genome-wide association study in the *ilSIRENTE* cohort

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Background: Unraveling the complexity of aging is crucial for understanding its mechanisms and why aging is the risk factor for most chronic conditions. The advancements marked by genome-wide association studies (GWASs) have sparked interest in gene cataloguing in the context of aging and age-related conditions. Here, we used GWAS to explore whether single nucleotide polymorphisms (SNPs) were associated with functional and anthropometric parameters in a cohort of old community-dwellers enrolled in the *ilSIRENTE* aging study.
Methods: Analyses were carried out in men and women aged 80+ years enrolled in the *ilSIRENTE* Study (n=286) and replicated in the *inCHIANTI* Study (n=1055). Genotyping was accomplished on Infinium Human610-QUAD version 1.
Results: In the *ilSIRENTE* population, genetic variants in ZNF295 and C2CD2 (rs928874 and rs1788355) on chromosome 21q22.3, were significantly associated with the 4-meter gait speed (rs928874, $p=5.61\times10^{-8}$; rs1788355, $p=5.73\times10^{-8}$). This association was not replicated in the *inCHIANTI* population.
Conclusions: Our findings suggest that specific SNPs may be associated with a key measure of physical performance in older adults. GWASs using larger samples are needed to confirm these preliminary results to enhance our comprehension of complex age-associated phenomena.

LB-002
MtDNA content and MtDNA deletion mutation abundance in skeletal muscle of sedentary high- and low-functioning elderly individuals

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Introduction: Mitochondrial dysfunction in skeletal myocytes has been proposed as a major factor contributing to the development and progression of sarcopenia. Hence, the quantitation of mitochondrial DNA (mtDNA) abundance and mtDNA deletion mutation load may help clarify the role of mtDNA instability in muscle aging.
Methods: We applied real-time PCR-based approaches to total DNA purified in muscle samples obtained from young adults, sedentary older adults, classified as high- and low-functioning based on the Short Physical Performance Battery (SPPB), in order to examine the effect of aging on key quantitative alterations of mtDNA and how this relates to physical performance.
Results: Muscle volume, as quantified via 3D-NMR, was decreased by 38% and 30% in low- (LFE) and high-functioning elderly (LFE) participants, respectively when compared to young and high-functioning elderly participants, respectively, and positively correlated with physical performance. The content of mtDNA was found to be significantly reduced in both groups of elderly participants, regardless of the SPPB score, relative to their younger counterparts. The age-associated decrease in mtDNA abundance was paralleled by an increase in the mtDNA deletion in HFE and LFE participants, with no differences between the two groups. Further investigations will probe alterations in mtDNA encoding genes: NADH dehydrogenase 1 (ND1/Complex 1), Cytochrome b (Complex III), and cytochrome c oxidase (COI/Complex IV).
Conclusion: This study shows altered mitochondrial homeostasis in muscles of aged human. The decline in myocyte mitochondrial mass and the accumulation of mtDNA deletions may therefore represent critical steps to muscle aging and possible targets for interventions against sarcopenia.

LB-003
A study of executive function (EF) and prospective fall risk in community-dwelling older adults

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Background: Recent findings suggest that older people with executive function (EF) impairment have an increased fall risk. Prospective evidence with prolonged follow-up is however lacking.
Objective: To examine 1) whether EF impairment at baseline predicts falls at 6-year follow-up; and 2) whether a dose-response relationship exists between EF impairment and falls at 6-year follow-up.
Methods: Community-dwelling older adults (N=906, mean age 69±1.4, women 59.8%) were followed between 2005 and 2011. Measures of EF at baseline: clock drawing test (CDT), verbal fluency (VF), TMT-A, -B, and ratio (TMT B-A/A). Falls were collected prospectively in 2011using monthly calendars.
Results: At baseline, 5.5% were cognitively impaired (MMSE≤24), 17.9% had abnormal CDT (score≤7). In 2011, 13% fell one time without injury and an additional 20.2% had multiple or injurious falls. Baseline cognitive profiles of non-fallers and multiple/injurious fallers were similar. In multivariable analysis, poor EF at baseline was significantly associated with reporting one non-injurious fall ($RR_{\text{worst quintile TMTB}}$ = 0.38, 95% CI: 0.19–0.77, p=0.007; $RR_{\text{worst quintile ratio TMT B-A/A}}$ = 0.33, 95% CI: 0.16–0.67, p=0.002). There was no significant association between poor EF and multiple/injurious falls, showing no dose-response relationship. In subgroup analysis among fallers, poor EF was associated with recurrent or injurious falls ($OR_{\text{worst quintile of TMT B}}$ = 1.86, 95% CI: 0.98–3.53, p=0.059; ($OR_{\text{worst quintile ratio TMT B-A/A}}$ = 1.84, 95% CI: 0.98–3.43, p=0.057).
Conclusions: Among fallers, EF impairment at baseline predicted recurrent or injurious falls. Further investigations will examine whether decline in EF increases fall risk during follow-up.

LB-004

Incidence and cost of medication-related harm in older adults following hospital discharge in the UK: Results from the PRIME study

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Introduction: Medication-related harm (MRH) is the most common adverse event following hospital discharge [1]. We sought to determine the incidence of MRH post-discharge in a population of older adults in the UK and associated cost of National Health Service (NHS) utilisation.

Methods: The study methods have been published [2]. Patients 65 years and above were recruited at the point of discharge following an acute admission from 5 teaching hospitals in South-England between September 2013 and November 2015. Patients were followed-up by research pharmacists for 8 weeks to determine whether they experienced MRH through 3 sources; hospital readmission, patient/carer telephone interview and GP records. MRH was defined as harm from adverse drug reactions or non-adherence. National Health Service (NHS) utilisation associated with MRH was recorded and costed using national NHS tariffs, and extrapolated using national hospital admissions data.

Results: Data from 1116 patients were analysed, median age 81.9 years (IQR, 75.5–86.9), and 58.4% female. The median discharge medicines per patient was 9 (IQR, 7–12). Four hundred and thirteen (37.0%) patients experienced MRH in the 8-weeks follow-up period, of which 51.9% was potentially avoidable. The most common MRH events were gastrointestinal (25.4%), neurological (17.9%), cardiovascular (11.0%) and musculoskeletal (10.5%). Four patients experienced fatal MRH (0.4%). Medicine classes associated with the highest risk of MRH (adverse events per 1000 discharge prescriptions) were opiates (399), antibiotics (189), benzodiazepines (180) and diuretics (153). Of 413 patients that experienced MRH, 328 (79.4%) sought NHS care. The incidence of MRH-associated patient readmission was 78 per 1000 discharges. We estimate post-discharge MRH in older adults to cost the NHS £ 395.5 million annually, of which £ 243.4 million is potentially avoidable.

Conclusions: MRH is common in older adults following hospital discharge, and results in substantial use of NHS resources. Interventions to prevent avoidable MRH could lead to considerable savings for NHS.

References:

[1] Forster AJ, Murff HJ, Peterson JF, Gandhi TK, Bates DW. The incidence and severity of adverse events affecting patients after discharge from the hospital. Ann Intern Med 2003;138:161–7.

[2] Stevenson J, Parekh N, Ali K, Timeyin J, Bremner S, Van Der Cammen T, et al. Protocol for a Prospective (P) study to develop a model to stratify the risk (RI) of medication (M) related harm in hospitalized elderly (E) patients in the UK (The PRIME study). BMC Geriatr 2016;16:22. doi:10.1186/s12877–016–0191–8.

LB-005

Caregivers' tailored nutritional counseling increases protein intake among male caregivers and patients receiving care at home

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Introduction: Older caregivers (CG) and care recipients (CR) are vulnerable to nutritional problems. Low intake of protein is common and can affect to their nutrition and health. Tailored nutrition counseling is needed to improve caregivers' and care recipients' nutrition.

Methods: In this RCT, we investigated the effectiveness of tailored nutrition counseling on nutrient intake among CG aged ≥65 years with normal cognition and CR aged ≥50 years. Nutrient intake was assessed with three-day food diary. Six-month intervention included tailored nutritional counseling with home visits, group meetings and written material in intervention group (I). Written material was offered to control group (C). Main outcome measure was change in protein intake (g/kg bodyweight (BW)/d) and it was analyzed among participants with protein intake under 1.2 g/kgBW/d (intervention target) at baseline.

Results: Total of 55 CG (n=28 I, n=27 C) and 40 CR (n=25 I, n=15 C), who had protein intake under 1.2 g/kgBW/d at baseline (79.7% CG and 88.8% CR), completed the study. Mean protein intake was 0.86 g/kgBW/d in the CG and 0.90 g/kgBW/d in the CR. Protein intake increased in CG male intervention group (n=12) 0.11 g/kgBW/d and decreased in male control group (n=13) −0.07 g/kgBW/d), p=0.007. Among CR intervention group protein intake increased 0.07 g/kgBW/d, p=0.033, but did not change in controls. There were no significant differences between other groups.

Conclusions: Tailored nutritional counseling improve protein intake among elderly male caregivers. Offering nutritional counseling to caregivers can affect to care recipient's nutrition at the same time.

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Poster presentations

Area: Biogerontology and genetics

P-001
Accelerated attrition early in life can explain short telomeres in patients with atherosclerotic cardio-vascular disease

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Short telomere length (TL) in leukocytes is associated with atherosclerotic cardiovascular disease (ACVD). It is unknown whether this relationship stems from having inherently short leukocyte TL (LTL) at birth, a faster LTL attrition thereafter, before or during the clinical manifestation of ACVD, or both. To understand the temporal relation of LTL with ACVD, we built on the following findings: TL attrition during extra-uterine life varies in proportion to the replicative activities of tissues. Consequently, skeletal muscle (M), a minimally proliferative tissue, displays a longer TL than LTL, which represents the highly proliferative hematopoietic system. We applied this blood-and-muscle to study the relation between TL and ACVD. We studied 259 individuals (82 women) aged 63±1 years (mean±SEM), undergoing surgery with (n=131) or without (n=128) clinical manifestation of ACVD. TL in leukocytes and in muscle biopsies was measured by Southern blots. In all subjects, MTLA (MTL adjusted for muscle biopsy site) was longer than LTL and LTL-MTLA difference became wider with age similarly in ACVD patients and controls. Age- and sex-adjusted LTL, but not MTLA, was shorter in patients with ACVD than controls (6.52±0.06 vs 6.80±0.06, P=0.005). LTL-MTLA was wider in ACVD than in controls (−2.01±0.05 vs −.74±0.05 respectively, P=0.0003). This first study, applying the "blood-and-muscle" TL model, shows more pronounced LTL attrition in ACVD patients than controls. The difference in attrition rates was not modified by age during adulthood indicating that accelerated attrition in early life is likely to be a major explanation of the shorter LTL in ACVD patients.

P-002
Activation of SKN-1 response in Caenorhabditis elegans by dietary protein-bound Nε-carboxymethyllysine

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LIRIC-UMR995

Introduction: Caenorhabditis elegans is one of the major model organisms for studying aging. We investigated the impact of dietary protein bound Nε-carboxyméthyllysine (CML) on C. elegans lifespan. We also studied the influence of CML on activation of three transcription factors controlling C. elegans longevity: DAF-16, SKN-1 and PHA-4 which are orthologs of human FOXO, NRF1/2 and FOXA, respectively.
Methods: Bovine serum albumin (BSA) was incubated with glyoxylic acid to produce CML-modified BSA (CML-BSA). Non-modified BSA (Ctrl-BSA) was used as control. C. elegans lifespan was measured in presence of CML-BSA and Ctrl-BSA. Activation of DAF-16, SKN-1 and PHA-4 transcription factors was monitored by using strains which express GFP fusion protein. Nuclear translocation of GFP fusion transcription factors was visualized by fluorescence microscopy. Expression of SKN-1 target genes (HSP-4, ATF-5 and GST-14) was analysed by RT-qPCR.
Results: CML-BSA had a transient but significant effect on C. elegans median lifespan. This effect was dependent on the concentration of CML. Activation of DAF-16 and PHA-4 was not controlled by CML-BSA. Nuclear translocation of SKN-1 was observed in proximal intestinal cells of worms incubated with CML-BSA. Time-course expression of SKN-1 target genes is in progress to confirm SKN-1 response induced by CML-BSA.
Conclusions: Our preliminary data show that dietary BSA-bound CML transiently influences C. elegans lifespan. SKN-1 activation, which typically results in recovery of homeostatic functions, could be responsible for CML detoxification, then worms' recovery. Additional analysis will be necessary to uncover mechanisms and molecules involved in SKN-1 activation by CML.

P-003
Assessing the role of APOE polymorphism on the executive dysfunctions in Alzheimer's disease

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Introduction: To determine the role of the apolipoprotein E (APOE) ε4 allele on executive dysfunctions in Alzheimer's disease (AD) patients.
Methods: A total of 182 AD patients attending Alzheimer's Evaluation Unit of Geriatrics, IRCCS "Casa Sollievo della Sofferenza" were included in the study. Of these patients, 132 were with executive dysfunctions (AD-ED) and 50 were without executive dysfunctions (AD-noED). All patients underwent APOE genotyping, Comprehensive Geriatric Assessment (CGA), Mini Mental State Examination (MMSE), Clinical Dementia Rating (CDR), Clock Drawing Test (CDT), and Frontal Assessment Battery (FAB).
Results: Percentage of females with AD-ED were significantly higher (p=0.044). AD-ED showed significantly higher cognitive impairment in MMSE ($p<0.0001$) and CDT (p=0.002), a more severe stage of dementia (CDR, p=0.008), and a worsening in several CGA domains (ADL, p=0.048; IADL, p=0.015; ESS, p=0.035). A higher frequency of APOE ε4/ε4, ε3/ε4 and ε2/ε4 genotypes was observed in patients with AD-ED (82.4%, 97.6%, and 66.7% respectively; $p<0.0001$). Conversely, a lower frequency of APOE ε3/ε3 and ε2/ε2 genotypes was observed in patients with AD-ED (45.1% and 28.6% respectively; $p<0.0001$).
Conclusions: If confirmed in wider samples of subjects, the observed differences suggested that the presence of ED in AD might identify two clinically and diagnostically distinct groups of patients. The observed results may have important clinical implications regarding mechanisms underlying these symptoms that may implicate a different treatment of these patients.

P-004
Association of mitochondrial DNA copy number and self-rated health status: A cross-sectional study

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Introduction: Mitochondria DNA (mtDNA) has received attention in aging and human health. We evaluated the association of mtDNA copy number with self-rated health status, independent of age.
Methods: This is a cross-sectional study of patients enrolled within the Mayo Clinic Biobank. We used 956 MCB patients with a completed health questionnaire and whole genome sequencing. The primary outcome was mtDNA copy number. The primary predictor was self-rated health status with 3 collapsed categories (excellent/very good, good, and fair/poor). A quantile regression model was used to test the association between self-rated health status and mtDNA copy number, adjusting for age and sex.
Results: The median age at enrollment was 61 years (range: 20 to 96), and 63% reported excellent or very good health with 31% good; and 6% with fair/poor health. The median mtDNA copy number was 89.3 (25th – 75th: 77.6–101.3). Higher copy number was observed with younger age (median of 96.0 for those $\leq$30 years vs 84.8 for subjects $>$65), and excellent or very good self-rated health status (median of 91.1, compared to 86.1 for good health and 83.0 for fair/poor health status). The association of self-rated health status with mtDNA copy number remained significant, even after adjusting for age and sex (2.2 [95% CI: 0.4–4.2] greater median mtDNA copies for those reporting excellent or very good health, compared to those with "good" health).
Conclusions: We found higher mtDNA copy number is associated with better self -rated health status independent of age and sex.

P-005
BMP-2 and BMP-4 plays a positive role in articular cartilage maintaining in mice

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BMPs, specifically BMP-2 and -4, have been shown to play a major role in mesenchymal cell differentiation and chondrocyte hypertrophy. The graded genetic expressions of BMP-2 and -4 within the four major growth plate zones represent an important molecular component of long bone formation after birth. However, the role of BMP-2 and -4 in mature articular cartilage remains limited. In this study, we investigate the significance of the BMP2While BMP signaling plays an important role in chondrocyte metabolism, and BMP2 and BM and BMP 4 gene in articular cartilage maintaining at postnatal stage in mice vivo.
Objective: To observe the phenotype of deleting BMP-2 and BMP-4 gene in chondrocytes in the development and maintaining of articular cartilage in mice. Try to demonstrate the molecular mechanism of articular cartilage development and degradation through BMP 2 and BMP 4 gene related signaling.
Material and method: Bmp-2, Bmp-4 conditional knockout mice, (Bmp-2 Bmp-4)Col 2 ER mice were generated by breeding (Bmp-2,Bmp-4)fx/fx mice with Col2-CreER transgenic mice. Knee joints were harvested from 3 months and 6 months old mice for histology to compare the difference in morphology of AC. Immunohistochemical were performed to analyze the OA-related proteins expression, which involves mmp13, adamts 4, and adamts 5.
Results: 1. The silence of BMP2 and BMP4 induced articular cartilage degradation phenotype, such as narrowed AC area, shortened AC depth, and massive subchondral bone, and the osteometric data of calculated AC area is consistent to the dramatically morphology changes in both 3- and 6- month old mice. ($P<0.05$) 2. The protein expression of MMP 13, Adamts4 and Adamts5 in superfacial zone of articular cartilage tissue is significnt increased in (BMP2, BMP4)Col 2 ER Group in 3-month old mice. ($P<0.05$) While in the 6-month old mice there showed the same tendency but the data is not statistical
Conclusion: Bmp2 and Bmp4 are not only involved in the formation of articular cartilage but also the mature cartilage metabolism and play a positive role in cartilage maintaining.

P-006
Mechanism of secretion of ribosomal protein S3 (rpS3) from cancer cells: a potential serological marker for cancer

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Introduction: Our previous study reported the secretion of ribosomal protein S3 (rpS3) into the extracellular space in conjunction with tumor malignancy. However, the secretion pathway and mechanism have not been fully elucidated.
Methods: Human fibrosarcoma (HT1080) cells were cultured in Dulbecco's modified Eagle's media. To confirm whether the secretion of rpS3 was regulated by an endoplasmic reticulum (ER) to Golgi or Golgi to ER pathway, HT1080 cells were treated with brefeldin A or monensin. To determine whether glycosylation was necessary for the secretion of rpS3, HT1080 cells were treated with tunicamycin, and an immunoblot assay and ELISA were performed. The presence of glycans in rpS3 was determined using peptide-N-glycosidase F (PNGase F) and concanavalin A. To identify the sites of glycosylation in rpS3, liquid chromatography-tandem mass spectrometry was performed.
Results: Secretion of rpS3 was inhibited by brefeldin A and tunicamycin. RpS3 bound to concanavalin A, whereas the band

for the secreted rpS3 shifted to lower-molecular-weight after the treatment with PNGase F, indicating that the secreted rpS3 was N-glycosylated. Mass spectrometry analysis showed that rpS3 is glycosylated at the Asn165 residue.
Conclusions: N-linked glycosylation is needed for rpS3 to be secreted into culture media, in which ER-Golgi-dependent pathway is involved. Moreover, we proved that the Asn165 residue of rpS3 had an important role for N-linked glycosylation. Additional studies are needed to define the role of the N-linked glycosylation of rpS3 in cancer pathophysiology and to assess its potential as a new target of cancer therapy.

P-007
Ribosomal protein S3 (rpS3) is secreted by various cancer cell lines: a potential biomarker for cancer

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Introduction: Ribosomal protein S3 (rpS3) is known to be secreted only by cancer cell lines and cells from cancer patients. We compared the secretion level of rpS3 among various cancer cell lines, cells from healthy adults, and normal cell lines. We then evaluated its possibility as a novel general biomarker for cancer.
Methods: HT1080 and MPC-11 (mouse plasmacytoma) cells were cultured in serum-depleted media for 24 h. Thereafter, the culture media were collected and precipitated to assess rpS3 protein secretion into the cell culture media. To clarify whether the secretion of rpS3 is associated with tumor malignancy, we used a series of tumor cell lines derived from a single immortalized human normal bronchial epithelial cell line (BEAS-2B). Their malignancy is classified as follows: non-transformed (1799), transformed but non-tumorigenic (1198), and tumorigenic (1170-I). A doxorubicin-resistant MPC-11 cell line was generated to examine the relationship between secreted rpS3 and tumor malignancy.
Results: The rpS3 protein was only detected in the culture media of HT1080 and MPC-11 cells. The secretion of rpS3 was dramatically higher in 1170-I cells compared to that in other cells. Additionally, 1198 and 1799 cells showed a moderately higher secretion of rpS3 compared to BEAS-2B. The level of rpS3 secreted by doxorubicin-resistant MPC-11 cells was significantly higher than that secreted by the MPC-11 parental cells.
Conclusions: We demonstrated that malignant cells release rpS3 protein. Based on our findings, secreted rpS3 can be a useful cancer biomarker, and the rpS3 level might indicate the aggressiveness of tumor cells.

P-008
Role of epigenetics as a novel therapeutic approach to Parkinson's disease

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Parkinson's disease (PD) is a complex multifactorial disease with an elusive aetiology, in which genetic and environmental factors are intricately associated. In recent years, epigenetic mechanisms such as DNA methylation, histone modifications and non-coding RNAs have been recognised as potential mediators in the pathogenesis of PD. Epigenetics refers to the heritable changes in gene expression that do not involve changes to the underlying DNA sequence. These modifications exist throughout our lifetime, commencing in the prenatal phase, and are influenced by the summation of one's genome and the environmental factors we are subjected to, rendering epigenetics as the missing link between the risk factors for PD and its development. Current pharmacological agents only provide symptomatic relief, of which levodopa still remains the gold standard. However, drugs that halt or delay progression of PD are still lacking. The increasing amount of papers aimed at understanding the epigenetics of PD has led to a better understanding of the molecular pathways involved in dopaminergic neuron degeneration, and several researchers are now working to understand the therapeutic potentials of epigenetic molecules to counteract age-related neurodegenerative diseases. Research revealed that DNA methylation, histone modification, and alterations in non-coding RNA profiles often precede disease pathology, which might prove useful as early disease biomarkers. Over the past few years, there has been a substantial progression in the development of epigenetic drugs, particularly the histone deacetylase (HDAC) inhibitors and DNA methyltransferase (DNMT) inhibitors, as a novel therapeutic modality in the management of PD. Cell replacement therapy is a promising avenue for the treatment of PD with scientific research making great progress in the development of induced pluripotent stem cells (iPSCs) to produce midbrain dopamine phenotypes. With direct access to the neurons that are affected in PD, the pace of discovery should speed up and the cure for PD should become an attainable goal. This comprehensive critical appraisal will shed light on the emerging role of epigenetics in the pathogenesis and therapeutic modulation of PD.

Area: Cognition and dementia

P-009
A project improving identification and assessment of elderly oncology patients with suspected dementia

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Introduction: In the UK 1 in 14 people aged over 65 have Dementia and over 600,000 live with Dementia. On average 48% of these have no formal diagnosis, nor have access to specialist services [1]. Oncology patients with suspected Dementia have a poorer prognosis and are more likely to be unsuitable candidates for surgical management [2]. Our project aim was to improve practice identifying and assessing elderly oncology inpatients suspected of Dementia.
Methods: 30 oncology patients over 65 years with Abbreviated Mental Test Score of 8 or less were audited. In line with NICE guidance we reviewed appropriate history, examination, and investigations, as well as a discharge recommendation for memory clinic. Interventions implemented include feeding back audit results, teaching and printed summary NICE Dementia guidance as an aide memoire. A re-audit was performed to assess improvement.
Results: A n initial audit showed that 15 (50%) patients had appropriate investigations, and 20 (66%) patients had recommendations for memory clinic. Post intervention an audit showed improved compliance with NICE recommended investigations to 26 (87%) patients and memory clinic recommendations in 28 (93%) patients.
Discussion: Following simple intervention our project showed that current practice of identifying and assessing elderly oncology patients with suspected cognitive impairment, improved from 50–66% to 87–93% compliance in line with NICE Dementia Guidance. Future recommendations include teaching, signposting Doctors and making summary NICE guidance widely available; with re-audit in 1 year to ensure continued compliance.
References:
[1] National Institute for Health and Clinical Excellence (NICE) (2016) Dementia: supporting people with dementia and their carers in health and social careAvailable at: https://www.nice.org.uk/guidance/cg42?unlid=725106828201715152953 [Last accessed 29/01/2017]

[2] Solomons et al. Dementia and Cancer. Ageing Health. 2013;9 (3):307–319

P-010

A randomized controlled trial on the effect of physical and combined physical and cognitive dual-task training on frailty in early stage dementia patients

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Background: Reducing frailty could have large positive effects on health status and reduce future healthcare costs, specifically in frail older adults suffering from dementia. This study aims to assess the efficacy of an aerobic training with and without a cognitive dual-task on the level of frailty in older adults with mild dementia.
Methods: A three-arm randomized controlled trial compared single aerobic training, combined cognitive-aerobic training, and an active control group (i.e. stretching and toning). Frailty was measured by the Evaluative Frailty Index for Physical activity (EFIP), a questionnaire that assesses patient-related outcomes on multiple domains (e.g. physical, psychological and social). Older adults with mild dementia (N=56, age = 79.4±5.2 years) were randomized and individually trained three times a week during 12 weeks.
Results: This abstract concerns preliminary results. At baseline, the mean frailty index was 0.25 (95% CI: 0.22–0.28) and after 12 weeks the index declined significantly to 0.21 (0.18–0.25) in the total study population. Post intervention group means for single training, combined training and active control were 0.20 (0.14–0.26), 0.21 (0.15–0.28) and 0.23 (0.17–0.29) respectively. These between group differences were not significant (ANCOVA p=0.535).
Conclusions: A 12-week training successfully reduces the level of frailty in older adults with mild dementia. Since a significant contrast between the intervention groups was not found, the effectiveness of the different components of the intervention could not be identified. This may be due to a lack of power at this interim stage of the trial and should be re-examined following future inclusions.

P-011

Administering continuous palliative sedation to patients with dementia and extreme neuropsychiatric symptoms

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Introduction: Less than one percent of the patients with dementia living in nursing homes exhibit very severe neuropsychiatric symptoms (NPS). Within this group, there are patients with so-called "refractory" NPS. In these patients the treating physician sometimes decides to administer continuous palliative sedation (CPS).
Methods: To explore the process of decision-making leading to CPS, this study retrospectively describes 3 cases where CPS was administered because of refractory NPS. We performed in-depth interviews of involved physicians, nurses and relatives. All interviews were transcribed ad verbatim and qualitative analyzed using Atlas.ti.
Results: Preliminary results show a range of themes relevant in the process leading to the decision to administer CPS. The NPS are extremely burdensome and considered refractory after a long period of trying various interventions; stakeholders mention to have tried everything, but with no effect. At a certain moment, they seem to lose hope, leading to a point dictated by feelings of powerlessness. These feelings appear especially when the resident explicitly suffers, showing an intensive internal struggle and sometimes verbally expressing a death wish. At that point, the physicians face the dilemma whether or not to make the decision to administer CPS, knowing that the Dutch guideline only permits CPS when life expectancy is less than two weeks.
Conclusions: CPS for NPS in residents with dementia is an undiscovered area. These preliminary results offer highly important insights into the process of stakeholders surrounding a resident with dementia and extreme NPS in their search for providing the best care that they possibly can.

P-012

Age differences in reaction time during an inhibitory choice stepping task challenged by a proprioceptive perturbation

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Introduction: We aimed to explore the effects of a proprioceptive perturbation from Achilles' tendon vibrations on an inhibitory stepping reaction time (RT) in young and older adults.
Methods: Twenty-six older adults (65–77 years, Mini-Mental State Examination >26, non-fallers) and twenty-six young adults (20–30 years) performed quiet standing trials with and without vibrations to record postural sway. Then, they executed an inhibitory stepping RT task, with and without Achilles tendon vibration. They had to step as quickly as possible in response to the direction of visual arrows that manipulated specific inhibition processes (congruent "no inhibition" vs. incongruent "inhibitory" trials).
Results: During quiet standing, postural instability was higher in young adults as compared with older adults while challenging the vibratory perturbation. Concerning the stepping performance, older adults had higher RTs than younger adults ($p<0.01$, +30%). Incongruent trials had larger effects on performances than congruence ($p<0.01$, +16%). Interestingly, only the young adults showed an increase in RTs in presence of vibrations ($p<0.05$, +8%).
Conclusions: The vibrations did not affect the stepping RT performance in older adults, unlike young adults. The attentional cost associated with the postural regulation might be already high enough to be affected by vibrations and/or their well-known age-affected sensory system may have not perceived the vibratory perturbation. Current investigations are conducted to know whether this composite assessment of inhibition and reactive stepping can strongly discriminate fallers from non-fallers.

P-013

Ageism and dementia stigma among healthcare professionals

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Introduction: Attitudes of staff working in nursing homes (NH) are of great importance when it comes to the quality of life of residents. The purpose of this research is to determine which parameters are associated to more aging and dementia stigmas among different types of professionals working in NH.
Methods: Our sample was constituted of 1276 professionals (M age =39.21 years old), recruited from 32 NH belonging to the FIH ASBL (Belgium). They were classified in nine groups: administrative (N=48); cooking staff (N=56); cleaning staff (N=150); activities (N=37); ergotherapists (N=39); assistant nurses (N=546); nurses (N=258); physiotherapists (N=76); and managers (N=64). Ageism

was evaluated by using the French version of the FSA-R [1] and the attitudes towards dementia were assesses by the DAS [2].
Results: Regression analyses show that the more people have experience, the more they have aging stigmas (p=0.001). Differences are also observed according to their profession: assistant nurses, cooking and cleaning staff have a more negative aging view than nurses (all p<0.001). Concerning dementia stigmas, being a man, a lower study level, working at partial time (vs full time) is associated with more negative attitudes toward dementia (respectively, p=0.24, 0.002 and 0.005). Moreover, cooking, cleaning and administrative staff have more stigmas toward dementia in comparison to nurses (all p<0.001).
Conclusion: Experience and profession seems to influence aging stigma. Concerning dementia stigmas, they are associated with profession, gender, level of education and working time.

P-014
Alzheimer and Helicobacter pylori infection: inflammation from stomach to brain? Preliminary results

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Alzheimer's disease (AD) is the leading cause of dementia worldwide. Its neuropahtology is well described; still its origin is unknown. Besides amyloid hypothesis, the role of infections has emerged. Recent studies concluded that Helicobacter pylori (Hp) infection increased AD incidence in humans and amyloïd plaques in the brain of AD-predisposed mice [1]. We hypothesized that Hp-induced gastritis was associated with an increased systemic and cerebral inflammation worsening AD lesions. C57BL6 mouse were infected with H. pylori (Hp, n=15) or H. felis (Hf, n=13) or left uninfected (NI, n=9). Stomach, brain and serum were collected after 18 months. Gastritis was scored after H&E staining. Brain specimens were processed to detect astroglial cells (immunochemistry anti-GFAP). Systemic and cerebral cytokines (IL1β, TNFα, IL-6, INFy, IL17a, IL-4, IL-10) were evaluated by ELISA and semi quantitative protein array test, respectively. After 18 months, infection induced a severe gastric inflammation (Hf>Hp) and an increase of astroglial cell area (8.0±2.2% (Hf), 6.0±1.2% (Hp) versus 5.6±2.4% (NI), p=0.02). Inflammatory cytokines were enhanced in the brain of infected mice (Hf>Hp) compared to NI mice. Systemic cytokines measurements are pending.
These preliminary results showed that long lasting gastritis induced by Helicobacter is associated with an increased neuroinflammation. To document the stomach-brain axis, systemic inflammation will be investigated soon.
References:
[1] Roubaud Baudron C, Letenneur L, Langlais A, Buissonnière A, Mégraud F, Dartigues J-F, et al. Does Helicobacter pylori infection increase incidence of dementia? The Personnes Agées QUID Study. J Am Geriatr Soc. 2013 Jan;61(1):74–8.

P-015
Are we aware of dementia?

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Objective: Dementia is increasingly prevalent in our community, but its awareness is relatively less. We aimed to reveal the knowledge, attitudes and opinions of our country about dementia.
Method: Anyone ≥18 years who agreed to complete the online questionnaire were included. There were 36 general questions about the characteristics of dementia, factors associated with dementia, the dementia courses and attitudes about dementia. Further questions were asked to subgroups (doctors, medical students, nurses, physiotherapists, dietitians, relatives of patients with dementia) about attitudes and disease knowledge.
Results: 2808 subjects ≥18 years were enrolled in to the study so far (male 895, female 1908). 2277 subjects were in the age range 18–44. The vast majority of participants were at least college graduates. Participants thought that dementia is a natural aging process (n=2088, %75), dementia isn't a killing disease (n=1406, %50), early diagnosis is important (n=1745, %62), patients with dementia are not living dead (n=1106, %39) and it is an unashamed illness (n=1906, %67).
Conclusion: According to the results that the early recognition of dementia is important, but the participants do not have enough information about the dementia. And on the other hand attitudes regarding patients with dementia is quite humane. We aim to be completed the survey by 10,000 people and the trial is ongoing now. The data at the end of the study would give the opportunity to have an opinion on the general disease perspective of our community. So it can be a guide to what can be done for awareness.

P-016
Associations between plasmatic poly-unsaturated fatty acids concentrations and cognitive status and decline in Alzheimer's disease

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Introduction: Despite an indisputably role of Omega-3 poly-unsaturated fatty acids (n3-PUFA) in neuronal protection and prevention of dementia, the associations between PUFA blood concentrations and both cognitive status and decline, remain to be tested. In addition, the impact of nutrition seems more significant on erythrocytes linked PUFA than circulating plasma PUFA.
Methods: A prospective cohort was performed in Lyon Sud memory center, France, in order to correlate PUFA biomarkers and Cognitive function in a longitudinal way: Mini Mental Status Examination (MMSE) was assessed at baseline and every 6 months. Concentration of n-3 PUFA (linoleic: AAL, eicosapentaenoic: EPA and docosahexaenoic: DHA) and n-6 PUFA (arachidonic: AA), were measured at baseline in plasma and erythrocytes membranes by gas chromatography-mass spectrometry extraction. Statistical analysis included Student's t-test and linear regression.
Results: From March 2010 and February 2014, 140 patients aged over 65 years were included. Compared to participants with mild or normal cognition (MMS ≥24), participants with advanced dementia had lower plasmatic concentrations of EPA and DHA (p<0.05). Cognitive decline (defined as ≥2 points loss on MMSE/year) was not associated with PUFA plasma concentrations but with DHA and AA levels in erythrocytes fractions (p<0.05).
Conclusions: Our study confirms n-3 PUFA concentrations (mainly EPA and DHA) are associated with cognitive status in the elderly. Moreover, in this exploratory study, lower erythrocyte PUFA concentrations (AA and DHA) were associated with accelerated decline and could be proposed as a surrogate marker for prediction of cognitive decline.

P-017
Attitude of General Practitioners face to Alzheimer's diseases's drugs prescriptions

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The goal of this study is to describe the attitude of General Practitioners (GP) in front of drugs which are initiated by a consultant, here the Alzheimer's disease (AD) drugs, and to analyze the consequences on the relationship between GP and consultants. The

method used a survey sentby email to the GP of the region Brittany between december 2016 and february 2017.
Results: 233 completes replies out of 1380 respondents. 13% had a cessation attitude without delay, 50% temporize with an prospective attitude of cessation and 36% continue these treatments. The evaluation of the benefit-risks ratio was negative regardless of the attitude.
Discussion: The relational determinants were predominating in the medical decision process, with attitude frequently paternalistic. The prescription of AD drugs can create a mistrust felling to the "memory consulting" or feeling sick among those who continue treatments despite of a negative evaluation.
Conclusion: Because of divergences between GP and consultants, the first prescription of ADdrugs reserved for consultants seems to cause destructuring consequences on accompanying patients.

P-018
Can the principle of Occam's Razor be applied to the elderly?

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An 87-year-old woman with Alzheimer's dementia presented with a two-day history of lethargy, altered mental status and fever of 38.6°C. She had deteriorated from being able to walk with assistance to being bedridden within two days. Her family also reported significant weight loss of eight kilograms over one year but declined further investigations. On admission she was delirious, clinically dehydrated and uncooperative with neurological examination. Investigations revealed haemoglobin of 8.6 g/dL (11.4–14.7g/L) with normocytic hypochromic picture, total white blood cell of 9.4×10^9/L ($3.84–10.01\times10^9$/L) and c-reactive protein within the normal range. Urine microscopy was unremarkable although urine culture grew Escherichia coli and Klebsiella pneumonia. A non-contrasted CT brain showed lobulated hypodensities with hyperdense rims in the right occipital lobe, associated with perilesional oedema which was initially attributed to malignancy but MRI confirmed it to be a brain abscess with a diameter of 40mm. Her family declined biopsy and patient was commenced on six weeks of intravenous ceftriaxone and metronidazole. Transthoracic echocardiogram revealed an aortic valve vegetation. Three sets of blood cultures were negative for bacterial growth. CT thorax abdomen pelvis was unremarkable. She was discharged to community hospital for rehabilitation and improved significantly back to baseline. Functional decline, delirium and atypical presentations (which may cause a delay in diagnosis) are not uncommon in patients with dementia. Our patient had normal inflammatory markers. There is no substitute for a good history, physical examination and constant revision of diagnosis. Occam's Razor does not apply to elderly.

P-019
Co-conception of a robot-assisted intervention for the management of care-induced pain in major neurocognitive disorders

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Introduction: Health care professionals lack tools to deal with acute pain in patients with moderate to severe dementia during daily nursing situations. The present study determined a framework and examined the feasibility of an innovative intervention using the Paro robot for the management of nursing-induced pain in dementia.
Methods: A mixed-method research design combining qualitative (4 focus groups) and quantitative (questionnaire survey) approaches was used to defined the intervention framework. We recruited 51 health care professionals from various medical and paramedical specialties (e.g., nursing auxiliaries, nurses, physicians, psychologists) and with expertise in gerontology.
Results: Four main issues regarding the intervention framework were addressed: (1) identification of a core group of situations associated with nursing-induced pain (washing, dressing/change, transfer/mobilization), currently considered as inefficiently managed, (2) the selection of an appropriate assessment methodology including criteria and tools for pain evaluation, (3) the definition of professionals training needs and organizational requirements for its implementation and, (4) the perceived usefulness of a robot-assisted intervention for the management of pain in dementia.
Conclusion: A consensual and feasible intervention framework for the management of nursing-induced pain in dementia using the Paro robot was defined. Understanding of professionals' needs, opinions and perceived obstacles regarding the intervention was necessary to implement effectively the assessment of the intervention clinical effects.

P-020
Cognitive decline and functional status in elderly cancer survivors from non Hodgkin lymphoma

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Introduction: Cancer and oncological treatments have been shown to cause cognitive impairment in cancer survivors. Data on elderly haematological patients are laking.
Methods: This is a multicentric observational study. Long-term outpatient survivors from Non Hodgkin Lymphoma aged 65 or more (N: 52) and a corresponding group of non-cancer controls (N: 51) have been enrolled since November 15th 2016 at Istituto Nazionale dei Tumori (Milano, IT) and Policlinico Agostino Gemelli (Rome, IT). Enrollement will end in July 2017. All study subjects have been assessed with a battery of neuropsychological tests; ADL, IADL and Karnofsky Performance Status scales were used for functional status. Data are presented using descriptive statistics and compared using T-test for unpaired samples with unequal variance for continuous variables and Chi squared test for categorical variables.
Results: Mean age was 74 years in both groups. Survivors scored lower in IADLs (6.9±2.5 vs 7.8±0.9) while no difference was observed in ADLs. As for cognition, survivors showed poorer performances in all tests for executive functions (Stroop Time 23.4" vs 15.6"; Trail Making Test A 34.3" vs 36.9", part B 84.1" vs 71.1", part B-A 48.7 vs 36.0) as well as in attention and visuospatial tasks (Multiple Features Target Cancellations time 48.3" vs 39.2"). No significant difference was observed in verbal learning and immediate recall.
Conclusions: Similarly to previous evidence, we observed a frontal subcortical profile with a relative sparing for episodic memory. The impairment in IADL is remarkable because it can be of critical importance for functional autonomy in elderly patients.

P-021
Cognitive profile of nonagenarian patients hospitalized in an intermediate care unit

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Aim: To assess the cognitive status of nonagenarian patients in an intermediate care unit.

Patients and method: Prospective study of nonagenarian patients admitted to an intermediate care unit. The following demographic variables (age, sex) and the presence of previous cognitive impairment were recorded (through anamnesis and review of clinical documentation). The cognitive status at admission was evaluated by Mini-mental Examination of Folstein (MMSE) and the presence of delirium by the Confusion Assessment Method (CAM) during admission. MMSE scores were categorized as: Normal (MMSE: 21–30), moderate cognitive impairment (MMSE: 15–20), and severe cognitive impairment (MMSE <15).
Results: Two-hundred and twelve patients (75.9% women) were registered. Eighty (37.73%) had cognitive impairment prior to admission. The mean of MMSE at admission was 15±9.82 points. At admission, 71 (34.80%) patients had not cognitive impairment (MMSE ≥21 points), 55 (26.96%) had moderate cognitive impairment (MMSE: 15–20 points) and 78 (38.24%) severe cognitive impairment (MMSE <15 points). The test was not applied to 8 patients because of aphasia, severe cognitive deterioration or deterioration of the state of consciousness. Ninety (42.45%) presented delirium during admission and 75 (35.37%) met dementia criteria.
Conclusions: The prevalence of cognitive impairment in the sample of patients evaluated was high. More than one-third of the nonagenarians had cognitive impairment prior to admission and had delirium during admission.

P-022
Course of neuropsychiatric symptoms in institutionalized patients with young onset dementia

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Introduction: Young onset dementia (YOD) often comes with neuropsychiatric symptoms (NPS) that are burdening for patients and caregivers and are predictors for institutionalization. The course of NPS in institutionalized patients with YOD is unknown. This study aims to fill this gap.
Methods: This study is part of the BEYOND-study, a descriptive cohort study of patients in Dutch YOD special care units. Eighty-nine patients were included in a two-year follow-up study, of which 50 patients completed follow up. NPS were assessed using the Neuropsychiatric Inventory Nursing Home version. Prevalence, incidence, resolution and persistence of NPS were calculated from all patients alive at the moment of a given assessment. Cumulative prevalence was calculated in patients with complete follow up.
Results: 82–94% of the residents had at least one NPS at any of the five assessments. Over the two year course 94% of the patients developed at least one new symptom of which 58% developed irritability, 52% agitation, 44% disinhibition, 44% eating change, and 42% apathy or aberrant motor behaviour. Apathy had the highest overall prevalence rate and was the most persistent symptom over the two-year course, followed by eating changes and aberrant motor behaviour. Most symptoms had a variable course with no clear patterns of increase or decrease.
Conclusions: NPS in institutionalized YOD patients vary during the course of the disease. More research into the course and predictors of NPS in institutionalized YOD patients is necessary in order to develop interventions tailored to the specific needs of these patients.

P-023
Depression in the elderly: the impact of comorbidities and sociodemographic factors

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Introduction: The depression in the elderly is the most common psychiatric disorder. In current practice, it represents a diagnostic and therapeutic challenge because of the atypical forms, screening difficulties and the presence of potentially serious forms.
Objective: The aim of our work is to determine the impact of co morbidities and the socio-demographic factors on the depression in elderly.
Methodology: This was a retrospective, descriptive study, interesting patients aged 65 years and more, who where consulting, in both Geriatric and psychiatric unit in the Fattouma Bourguiba Hospital in Monastir, from 1 January to 31 December 2015, for a major depressive disorder.
Results: In all, we collected 38 cases. Our population was predominantly female (sex-ratio=0,72). The mean age was 71 years. 68,4% of our patients were not married, 60,5% were illiterate and 60% were unemployed. Over three-quarters of our patients (86,8%) had a personal history of somatic disease dominated by the cardiovascular one. A major depressive disorder, type of single episode was diagnosed in 25 patients (65,8%) and recurrent one in 31 cases (34,2%). The SSRI antidepressants were the most frequently prescribed drugs (81,5%) followed by the benzodiazepines (31,5%) and the tricyclic ones (18,5%). The Factors which was correlated with a severe disorder are: the social status, a high stress factors score and co morbidities. An academic instruction was considered as a protective one.
Conclusion: According to this study, the high frequency of somatic co morbidities and the low level of education were predictive of a severe and atypical forms of depressive disorders in the elderly population

P-024
Description of a cognitive-behavioral unit: management of behavior disorders in dementia

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Behavior disorders found in dementia are a source of caregiver fatigue and hospitalization. The Cognitive Behavioral Units (UCC) for the management of its symptoms was created within the framework of measure 17 of the Alzheimer plan in 2008/2012. The objective of this study is to characterize the patients hospitalized in our CCU as well as to evaluate the pharmacological vs. non-pharmacological therapeutic practices implemented to reduce behavioral symptoms.
Results: 145 patients were enrolled in the study with an average age of 80.35 years (±8.0). An improvement in behavioral disorders was obtained in 65% (n=95) of patients. Symptoms of aggressiveness, anxiety and hallucination were the most frequent reasons for admission. Patients had severe deterioration (mean MMS at 14). The duration of hospitalization was 56.57 days. A decrease in the number of psychotropic drugs is confirmed by non-drug therapies.
Discussion: The use of UCCs appears to be fundamental to manage behavioral disorders; nevertheless there is still room for improvement in the management of non-drug therapies. This study demonstrates that UCC fulfills the specifications of the UCCs.

P-025

Diagnosis of neurodegenerative diseases: interest of a second FDG-PET

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Introduction: The diagnosis of cognitive disorders requires clinical, neuropsychological/orthophonic examination, brain MRI, functional imaging, proteomic study, amyloid-PET. However, the evolution of these disorders often conducts to correction of prior hypothesis. Lack of investigation on this topic, conducted us to evaluate the interest of a second 18F-flurodeoxyglucose positon emission tomography (FDG-PET).
Methods: Retrospective study of patients followed in our primary clinic. 66 patients were enrolled: 27 men (41%), 39 women (59%); mean age 74.7 (44–87); mean MMS-E at first assessment 24 (12–29); mean time between first and second FDG-PET was 18 months (6.4–56.5). Primary diagnosis were compared with a second clinical and neuropsychological assessment, and all cases were discussed to determine final diagnosis and usefulness of second FDG-PET.
Results: Among second FDG-PET, 46 (69.7%) were considered as useful. In 22 (48%) patients from this group, second FDG-PET led to correct previous diagnosis, in 12 (26%) conducted to eliminate a second hypothesis, in 12 (26%) confirmed the first hypothesis. Secondary FDG-PET is more useful when performed after 12 months. Furthermore, in patients presenting initially with a psychiatric profile, second FDG-PET was useful in 85.7% of cases.
Conclusions: A second FDG-PET performed at least 12 months after first complete assessment is of high interest to define diagnosis of neurodegenerative diseases, and can correct initial diagnosis, especially in patients with initial psychiatric presentation.

P-026

Differential association between BP level and cognitive function in the elderly and very elderly treated hypertensive subjects

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Aim: To evaluate relationship between blood pressure and the severity of cognitive impairment in elderly and very elderly patients was studied.
Material and methods: The study included 356 patients, the mean age was 74.9±6.1 years, 80.4% were women All patients underwent clinical-neurological examination. Cognitive functions were assessed by Mini Mental State Examination (MMSE). All statistical analyses were performed using "IBM SPSS Statistics version 20" and "Microsoft Excel 2010". Univariate analysis and regression analysis using Pearson's product-moment and Spearman's rank correlation coefficients were undertaken to evaluate data.
Results: Average BP level among 65–79 y.o. patients with 28–30 points on the MMSE reveal 141,7±22,93/80,7±9,12 mmHg; among 65–79 y.o. patients with less than 27 points on the MMSE reveal 152,0±23,94/91,0±8,21 mmHg. However the results of BP level among ≥80 y.o. was 144,1±22,44/78,5±8,55 and 145,7±27,04/77,9±8,23. In the group of patients under the age of 80, a significant inverse relationship between the total score of MMSE and the level of blood pressure found: for systolic blood pressure (r=−0.22, p=0.0003), for diastolic blood pressure (r=−0.13, p=0.03). That is, in patients with higher blood pressure, low scores on the cognitive status assessment scale were obtained from the Spearman correlation analysis. In those aged 80 years and, correlations were insignificant, for systolic blood pressure (r=−0.05 , P=0.64), for diastolic blood pressure (r=−0.13, p=0.25).
Conclusion: The results suggest differential association between BP and cognitive function in the elderly and very elderly patients. Diminishing of inverse correlation between SBP and MMSE may be found in the very elderly treated hypertensive subjects

P-027

Distinguishing Alzheimer disease and other forms of dementia: the role of amyloid positron emission tomography imaging

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Background: Diagnosing Alzheimer Disease (AD) is complex. With no single test currently available, diagnosis is based on an individual's history, physical examination, and cognitive testing. One of the main features of AD is the presence of amyloid beta deposits, which accumulate in the brain years before the onset of symptoms. Positron emission tomography (PET) imaging assessing amyloid burden represents a potential advance in the assessment of neurocognitive disorders. PET scanning has been reported to play a pivotal role in helping the clinician distinguishing between AD and other dementia disorders.
Aim: This study aimed at exploring the ability and efficacy of Amyloid PET-CT to diagnose AD in patients with a suspicion of AD.
Methods: 66 subjects (mean age 75.2 y, SD ±5.2 y) suffering from cognitive impairment suspicious for AD underwent amyloid PET. Laboratory and neuropsychological assessment and brain CT/MRI scan were also performed for differential diagnosis. AD diagnosis was made according to 2011 Alzheimer Association/National Institute of Aging (AA/NIA) diagnostic criteria and guidelines for AD.
Results: Concordance with AD diagnosis – according to AA/NIA criteria – and PET-CT visual reads was estimated at 96.9% in our study population. Statistical analysis has demonstrated that amyloid PET-CT has a 98.4% sensitivity and 91.9% specificity to distinguish AD from other forms of dementia.
Conclusion: Amyloid PET has improved the non-invasive assessment of the pathological hallmarks of AD, It should be used as an additional diagnostic tool when evaluating individuals who may have AD, in conjunction with cognitive tests and patient history gathering.

P-028

Economic impact of the intervention of geriatric specialized teams (EAR) in the assessment of patients with dementia in nursing homes in two catalan counties (Vallès Occidental and Vallès Oriental)

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Introduction: There is worldwide concern about healthcare economic impact of population aging and the exponential increase of prevalence of elderly people with dementia. Until 2016, 98,800 people were diagnosed with Alzheimer's desease in Spain, assuming an annual pharmacological cost of €23,354 and a direct medical cost of €10,291 per person in a year. Dementia directed treatment (DDT) cost is €1,000 per patient/year while hospital specialised assessment cost is 200€ per visit. Every patient is usually assessed twice a year at the hospital. In 2016, EAR teams began monitoring patients with dementia in Vallès Occidental (VOC) and Vallès Oriental (VOR) nursing homes.
Method: Prospective and descriptive study of assessment, performed on dementia patients admitted in VOC and VOR nursing homes.

Objective: EAR teams are cost-efective in monitoring patients on dementia directed treatment in VOC and VOR nursing homes.
Results: 105 patients (81 women and 24 men) were assessed by EAR at their nursing home. Mean age was 85 years old and 42% had severe dependence (Barthel index below 20). Only 20 patients were identified as MACA (chronic advanced disease); 7 out of 20 had severe cognitive impairment as assessed with a Global Deterioration Scale (GDS) of 7. 40 were not identified neither MACA nor PCC (chronic complex patient); 22 out of 40 had a GDS of 7. After EAR assessment DDT was withdrawn in 53 patients, renewed in 37 patients, started in 1 patient and partially renewed in another.
Conclusion: EAR intervention had a reduction of direct costs to healthcare system of 101,500€ in 2016. For this reason, we conclude that speacilized geriatric provided at the nursing home is probably the most suitable and efficient device to assess and monitor resident nursing home patients with dementia.

P-029
Effects of multisensory stimulation in a snoezelen room on the behavior of elderly people with dementia

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Introduction: Snoezelen rooms (multisensory stimulation) are available in day centers and care homes, but there is little research on the impact of these on the behavior of people with dementia. The main objective of this study is to investigate the benefits of multisensory stimulation on the affective-behavioral level in elderly people with mild, moderate or severe dementia.
Method: Mixed methodology: quantitative and qualitative data. Design: Quasi experimental, pre and post test with control group. Subjects: 18 people with dementia. Instruments: Standard tests combined with video footage are combined. Tests applied: Blessed (dementia); Cornell (depression). Hamilton (Anxiety) Cohen (agitation). Record of relaxation. Procedure: Participants were randomly assigned to the snoezelen room or reminiscence sessions (control group). They have participated in two weekly sessions of 30 minutes for 3 weeks in a group of three people. The tests and videotaped sessions 1, 3 and 6. The therapist of the multisensory classroom has completed two questionnaires designed ad hoc for each participant: a) Register of the different materials that have used. b) Perception of the professional about the general condition of the patient.
Results: Presented for each study group as well as comparative between groups. Regarding the behavior in general there are no significant differences between the pre and post test, but it is noteworthy that regarding relaxation there are remarkable changes. The group with mild dementia presents notable improvements in participation.
Conclusions: Multisensory therapy favors relaxation and interpersonal relationships in the individuals studied. Implications for clinical practice of snoezelen rooms are discussed.

P-030
Evidence of RedOx homeostasis disruption on red blood cells of patients with dementia

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Introduction: The pivotal role of oxidative stress in brain degeneration is widely accepted, and its increase may cause adverse effects in the cell membranes. The present study realized on 64 demented patients vs 79 healthy non-demented controls was undertaken to precise the relationships between the different types and stages of dementia and oxidative stress.
Methods: All the participants (age>60) were classified according to the DSM-IV diagnostic criteria for dementia. Demented patients were stratified into 3 groups; Alzheimer disease (AD), vascular dementia (VD) and others dementia group (OD). We measured malondialdehyde (MDA) and conjugated dienes (CD) levels, superoxide dismutase (SOD), catalase (CAT) and glutathione peroxidase (GPx) activities and reduced glutathione (GSH) in RBCs from all participants.
Results: A significant increase in catalase and SOD activity was revealed in all demented patients compared with controls. Besides, a significant decrease of the GPx activity was revealed associated with a significant increase of GSH level compared to controls. Highly significant differences were observed with GPx activity of each group comparatively to controls. An increase in catalase activity was also observed in the different groups of patients. Furthermore, mean values of MDA increase in AD, VD and OD. Also, raised levels of CD were observed in demented patients. In conclusion, on the population of demented patients considered, our investigation suggests that the occurrence of oxidative stress at the peripheric level is not counteracted by enhanced activities of anti-oxidative defenses.

P-031
Factors associated with adherence to multidomain lifestyle interventions for the prevention of dementia: data from the MAPT and FINGER trials

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Introduction: Multidomain lifestyle interventions have been advocated for dementia prevention, but can be burdensome. The content, intensity and method of delivery of interventions could affect adherence, which in turn could affect efficacy. Our aim was to study factors associated with adherence in two multidomain trials aiming to prevent cognitive decline.
Methods: The 2-year FINGER trial included 1260 Finnish individuals aged 60–77 years with an increased dementia risk score, and the 3-year MAPT trial included 1680 French individuals aged ≥70 with a subjective memory complaint, IADL limitation and/or slow walking speed. The FINGER intervention involved separate group and individual sessions of computer-based cognitive training, physical exercise, nutritional counselling and cardiovascular monitoring. The MAPT multidomain intervention involved group sessions simultaneously covering pen and paper-based cognitive training, and advice/education on physical activity and diet. We examined factors associated with adherence to the MAPT group sessions, and simultaneous adherence to all components of the FINGER intervention.
Results: In unadjusted analyses, only poor physical status and low income were significantly associated with poorer adherence in both trials. In addition, in FINGER, older age, lower education, lack of physical exercise and being single were associated with poorer adherence, while in MAPT, lower cognition and cardiovascular risk

factors (BMI, diabetes, high blood pressure) were associated with poorer adherence. Multivariate analyses will be presented.
Conclusions: Dementia risk factors were associated with poorer adherence to multidomain lifestyle interventions, although results varied across trials, probably due in particular to differences in study populations, and intervention design.

P-032
Factors associated with caregiver burden in caregivers of patients with dementia admitted to psychiatric hospitals for behavioral and psychological symptoms of dementia in Japan

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Background: We have reported that caregiver burden may impede early discharge of patients with dementia admitted to psychiatric hospitals for the management of the behavioral and psychological symptoms of dementia (BPSD) in Japan. We analyzed the data of a nationwide prospective cohort study to identify factors associated with caregiver burden.
Methods: A total of 138 psychiatric hospitals with dementia units (31.5% of such hospitals in Japan) participated in the cohort study. The subjects were patients with dementia admitted to psychiatric hospitals for BPSD and their caregivers and their data at admission were analyzed. Caregiver burden was assessed using the Zarit Caregiver Burden scale (ZCB). Measures of patients included Barthel index (activities of daily living), cognitive function (Mini Mental State Examination), agitation (Cohen-Mansfield Agitation Inventory), BPSD severity and burden (Neuropsychiatric Inventory-Questionnaire). The association with caregiver burden was assessed using multiple linear regression.
Results: Of 361 caregivers included in the analysis, the mean of ZCB was 43.8 with standard deviation of 20.4. In multiple linear regression analysis, patient's marital status, experience of caregivers quitting or changing their job for caregiving, time for caregiving more than 8 hours per day, caregiver's self-rated health, BPSD severity were associated with caregiver burden.
Conclusion: Multiple factors may contribute to caregiver burden. Our results may enable medical staff to identify caregivers at high risk for caregiver burden, which would be a prime target for the intervention to alleviate caregiver burden.

P-033
Frailty indicates study dropouts in a randomized drug trial among mild to moderate Alzheimer's disease patients

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Introduction: While frailty has been widely reported in observational studies as an important predictor for adverse health outcomes, its contribution to dropouts and adverse events in trials has not been reported. We examined whether frailty is linked with these relevant events in a drug trial among patients with mild to moderate Alzheimer's Disease (AD).
Methods: 469 participants (73±8 years, female 61.6%) were included in the NILVAD-frailty substudy [1]. A Frailty Index (FI) with a range of 0 (fittest) to 1 (frailest) was derived based on a previously defined approach [2] from 26 deficits across seven domains (i.e. daily functioning, cognition, morbidity, physical performance, social network, polypharmacy, and body mass index) assessed at baseline and at 78±1 week follow up. Using Mann-Whitney test, differences of baseline FI were examined among participants who dropped out versus those who adhered to the study. Spearman's correlation coefficient was examined between baseline FI and number of recorded adverse events.
Results: 408 participants had available FI at both time points, with positive-skewed distribution at baseline (median=0.18), which became significantly higher ($p<0.001$) and normalized at follow up (median=0.29). Median baseline FI was 0.06 higher ($p<0.05$) for participants who dropped out than for those who adhered to study. We did not find an association between baseline FI and number of recorded adverse events (Spearman's r=0.55).
Conclusions: Our findings suggest that the frailty status of participants in AD drug trials will significantly increase over 1.5 year study period, and it may assist researchers to anticipate dropouts among these patients.
References:
[1] Meulenbroek, O., et al., European multicentre double-blind placebo-controlled trial of Nilvadipine in mild-to-moderate Alzheimer's disease – the substudy protocols: NILVAD frailty; NILVAD blood and genetic biomarkers; NILVAD cerebrospinal fluid biomarkers; NILVAD cerebral blood flow. BMJ Open, 2016. 6(7).
[2] Searle, S.D., et al., A standard procedure for creating a frailty index. BMC Geriatrics, 2008. 8(1): p. 24.

P-034
How to support people with dementia to take part in activities

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Introduction: Participation in activities outside home can be a challenge for people with dementia. In this qualitative study we wanted to explore the experiences and perspectives of caregivers related to participation in physical activities, in order to understand barriers and facilitators to participating in activities for older adults with dementia. The study represents a first step in describing challenges, in order to be able to design new activities adapted to this particular group of older adults.
Methods: We recruited eight caregivers of home-dwelling people with a dementia diagnosis from a local centre for people with dementia and their families in a Norwegian municipality. We performed two focus groups, and qualitative data were analysed by Systematic Text Condensation method.
Results: The findings indicate that current health care services for people with dementia do not meet the needs of either the people with dementia or their caregivers. The services offered are characterised by passivity and lack of individual and personalised care. Rather than focus on the dementia diagnosis, caregivers suggest that services consider individual resources, interests, and physical function.
Conclusions: To improve the health care services for people with dementia participation and involvement from both people with dementia and their caregivers is necessary. Design and organisation of services for people with dementia should take their total situation into account, in order to provide activities that people with dementia can use, and also to support and decrease caregivers' burden.

P-035
Hypertension and cognitive function in the elderly: preliminary results of a screening study

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Introduction: Hypertension is a risk factor for cognitive decline, therefore cognitive evaluation should be included in the clinical

assessment of elder hypertensive patients. Nonetheless, there is still controversy over which screening test is more appropriate. Our study evaluates the Mini-Cog test as first-line screening, to assess cognitive function in old hypertensive patients without a previous diagnosis of cognitive impairment.
Methods: Patients aged ≥65 years consecutively referred to our Centre were enrolled. All patients underwent a first-line evaluation with the Mini-Cog test (three-item repetition and recall and clock drawing). If the Mini-Cog result was abnormal, the Mini Mental State Examination (MMSE) was administered. In case of a MMSE score ≤27, a Neuropsychological Evaluation (NPE) was performed.
Results: 80 patients were enrolled; the mean age was 75.7±5.5 years, 27.5% of patients was octogenarian. All patients had both clinic and out-of-office blood pressure (BP) values in the target range; mean BP values were similar in patients with normal and abnormal Mini-Cog Test results. A Mini-Cog Test suggestive for cognitive impairment was observed in 16 patients (20%); of these, 5 had a MMSE score ≤27. At the NPE, a diagnosis of cognitive decline was confirmed in 2 patients (2.5% of our population). Clock Drawing Test was incorrect in 39.1% of patients with a normal Mini-Cog test; the 51.3% of the overall population had a deficit in clock drawing.
Conclusions: The Mini-Cog test cannot be suggested as a screening test for the evaluation of cognitive function in old hypertensive patients.

P-036
Improvement of behavioral and psychological symptoms of dementia (BPSD) by teaching basic comprehensive standardized care methodology to family caregivers

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In Japan, the population with dementia is estimated over 7 million in 2025. Although it is recommended to support person with dementia to live in familiar community as long as possible, it can cause caregivers' burden. Especially BPSD brings enormous care burden and interferes the health of family caregivers, which results to hasten timing of long-term care institutionalization. A multimodal comprehensive French care methodology; Humanitude, focuses on their perception, emotion and verbal-nonverbal communication between vulnerable elderlies and their caregivers. The effectiveness of this methodology has been reported in professional caregivers, however, no study was conducted among family caregivers. The objective of this study is to evaluate reduction of BPSD by teaching Humanitude to family caregivers. This pilot study was designed as pre-post comparison of teaching the care methodology to family caregivers. It conducted in two regions in Japan, and 9 caregivers participated. Family caregivers learned this methodology, and used the techniques at home. The BPSD of the care-receivers was evaluated by Behavioral Pathology in Alzheimer's Disease (BEHAVE-AD) before the training, at month 1 and month 3 after the training. The average age of caregivers was 65.1 (±12.7) and care-receivers was 81.5 (±8.0). The score of BEHAVE-AD at baseline was 9.0 and decreased to 6.4 at month 1 (t-test, p=0.088), 5.9 at months 3 (t-test, n.s.). There was no difference in Burden score. A comprehensive multimodal care methodology for family caregivers was effective for improvement BPSD of people with dementia at home.

P-037
Improving personalised care for inpatients with dementia in Wales: quality improvement initiative using the "This is me" booklet

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Introduction: Personalised care can alleviate psychological distress for inpatients with dementia. The "This is Me" booklet contains questions which patients and families can fill in together: these questions explore important life events, preferences and causes for anxiety. The UK National Audit for Dementia aims for all inpatients to have access to a "This is Me" or alternative care booklet.
Methods: We are undertaking a quality improvement initiative within the Royal Glamorgan Hospital (RGH) to ensure that "This is me" booklets are completed for all inpatients with dementia. We have undertaken a primary audit of their use, followed by focused interviews and questionnaires for relatives (n=16) and clinical staff (n=36) to assess the perception of the quality of personalised care delivered on the wards.
Results: 18% of patients with dementia had a "This is me" or alternative personal care booklet completed (n=32). Focused interviews highlighted concerns that staff didn't know their relatives preferred name, food/drink preferences or communication requirements. 37% of family members felt that staff were aware of what makes their relative anxious.
Conclusions: RGH is currently providing inadequate personalised care to patients with dementia. We have therefore provided ward based multi-disciplinary education sessions, emphasising the benefits of providing personalised care. We have also created dementia packs for relatives, which include "This is me" booklets in addition to information about dementia/delerium. Improvements in staff and patient satisfaction have already been noted following this intervention and will be re-audited throughout Summer 2017.

P-038
Leisure activity, social interactions and the risk of cognitive decline in old people

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Introduction: Participation in leisure activities as well as extensive social networks have been associated with a lower risk of incident dementia. While cognitive activity, such as solving puzzles, reading or playing board games have been shown to reduce the likelihood of incident dementia, the role of group, social, creative or physical activity is less clear.
Methods: We examined the relationship between leisure activities and social relations and the risk of MCI (mild cognitive impairment) and dementia in a cohort of 4409 elderly individuals who participated in the Ages-Reykjavik Study. The cohort was cognitively intact at baseline and was followed for 5 years. Logistic regression analysis was used to evaluate the risk of cognitive decline with adjustment for age, sex, education, occupation, physical function, health and vascular risk factors.
Results: There were 351 (8%) individuals who were cognitively impaired at AGES II follow up, 243 were diagnosed with MCI and 108 with dementia. Frequent engaging in solitary or group cognitive or creative activity, was associated with reduced risk of cognitive decline Odds Ration (OR): 0,49 (95% conficence interval (CI):0,38–0,64), OR: 0,50 (95% CI:(0,30–0,82) and OR:0,53 (95% CI:0,35–0,83) respectively. Frequency of interaction with friends and relatives was associated with reduced risk of cognitive decline (OR:0,49 (95% CI:0,31–0,75). The associations were generally stronger for women, except for the frequency of interactions with friends or relatives.
Conclusion: Cognitive, either solitary or group, and creative leisure activities and frequent social interactions was associated with reduced risk of cognitive decline by half over 5 years of follow-up

P-039

Refusal and acceptance of Paro-based therapy: a pilot study in patients with major neurocognitive disorders

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Introduction: Social robot therapy is a promising psychosocial intervention for patients displaying behavioral and psychological symptoms of dementia (BPSD). While the acceptability of robot-based interventions plays a crucial role in the therapeutic observance, studies on refusal causes and the influence of acceptability on intervention's efficacy remains little explored.
Methods: A pilot study was conducted among 17 patients with BPSD in order to measure the impact of an exposition to PARO robot without simultaneous human presence. Intervention consisted of four 15-minutes individual sessions. Participants were assessed on their perceived emotional well-being and the acceptability of the intervention.
Results: Of the 24 pre-selected patients for the study, seven refused to participate (29,2%). Reasons for refusals were classified into three categories: (1) "no interest in robots" (57,2%), (2) "It is childlike" (28,6%), and (3) "refuse consent to any care" (14,3%). However, included participants reported good robot acceptability. No statistical differences were found between patients who accepted and refused the intervention regarding socio-demographic characteristics, cognitive status or BPSD profile. Higher acceptability level was positively associated with positive affects improvement in the well-being scale ($r = 0.56$; $p < 0.05$).
Conclusion: In spite of Paro's impact in patients' with BPSD, its use would be limited by the preconceptions, which seems change after real experiences. Thus, producing strategies to democratize the use of social robots in these populations seems warranted.

P-040

Motor performance of older subjects with mild cognitive impairment and early Alzheimer's disease: Is dual task test really useful?

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Introduction: Motor impairment has been observed in Alzheimer's disease (AD), since early stages, and Mild Cognitive Impairment (MCI), with dual task (DT) measures being considered as specific correlates of cognitive decline. The purpose of this study is to compare motor performance (including DT performance) of older subjects with and without cognitive impairment.
Methods: Subject 65+ with mild AD or MCI (D+) and peers without cognitive impairment (D-) underwent Short Physical Performance Battery (SPPB) and quantitative gait analysis with GAITRite, both as single task (ST) and as dual task (DT, with concurrent verbal fluency test). DT cost was calculated as percentage change of motor performance in DT compared with ST.
Results: 32 D- and 35 D+ were enrolled. In comparison with D-, D+ had a similar age (78) but greater cognitive (Mini Mental State Examination 25.0 vs. 28.6) and functional impairment, comorbidity and polypharmacy. D+ showed a poorer motor performance than D-, both as SPPB score (10 vs. 11, p=0.02) and as walking speed (1.10 vs. 1.24 m/sec, p=0.02) and cadence. DT cost was similar between the two groups. These differences were lost after adjustment for comorbidity and polypharmacy. In the whole sample, both MMSE score and polypharmacy independently predicted SPPB score.
Conclusion: Older subjects with MCI and mild AD showed a worse motor performance compared to cognitively intact peers, but this difference was at least partly explained by greater comorbidity/polypharmacy. Contrary to previous literature, dual task cost was not associated with cognitive impairment.

P-041

My life story

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Introduction: "My Life Story" is a concept which involves making a book of one's life, which allows seniors in nursing homes to reappropriate and revisit their history and memories. This booklet contains the life course of resident and has for the purpose a long-term study of behavioral and moods disorders, in the practical application of non-drug treatments.
Methods: Each book is created during a weekly session. The resident himself or one of his relatives, (if the resident presents demential disabilities or psychiatric disorders), evoke his life based on specific events illustrated by personal photos that he has preselected. This booklet is established two months after arrival in nursing home while residents get their benchmarks. This study analyses three groups of residents: – "Placebo", – "Demented" – "Psychiatric"; Under three different conditions: – With booklet and an hour a week personal accompaniment, – With booklet and without accompaniment, – Without booklet and without accompaniment.
Results: The qualitative results, verbalized or observed data, will allow working on the resident's representations and interpretations on some aspects of their lives, but also how they lived them. The quantitative results, which study the decrease in medical prescriptions, as well as mood and behavioral disorders will demonstrate the positive effect or not of this booklet.
Conclusions: Improvements will be made in multidisciplinary group such as recording interviews by video to investigate objectively the exchange time and the different expressions between the resident and his family or nursing team.

P-042

Negative perceptions of Alzheimer disease and memory problems: factor to beginning a diagnosis process?

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Illness perceptions are well known to influence how people live with chronic disease and deal with bad news such as diagnosis disclosure. Assessment of illness perceptions is used for preventive approach too. In this study, the Common Sense Model of Leventhal helps us to assess memory problems perceptions of people with memory complaints. These people were split in two groups: 54 persons with help seeking behavior recruited at a memory center and 46 persons without help seeking behavior met in their homes. The aim of the study was to identify: the main causes of memory problems reported by people with memory complaints, perceptions and factors of help seeking. For that purpose, we developed a French version of Illness Perceptions Questionnaire-Memory.
Results: Memory problems are embarrassing for the majority of respondents in the two groups. Nevertheless, memory problems are considered controllable with external support. Besides aging, the main causes of memory problems reported are lack of attention and lack of brain stimulation. Memory problems perceptions are linked to quality of life and are more predictive of help seeking behavior than aging or effective cognitive decline.

Conclusion: Assessment of memory problems perceptions could be interesting when memory complaints appear to determine the degree of global understanding and the need for medical care. In the diagnosis process and after the diagnosis disclosure, memory problems perceptions could help health professionals to adjust their care.

P-043
Neuropsychiatric symptoms in people with Korsakoff syndrome and other alcohol-related cognitive disorders living in specialist long-term care facilities: the prevalence, severity and associated caregiver distress

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Introduction: Caring for people with Korsakoff syndrome (KS) residing in specialist long-term care facilities (LTCFs) can be distressing due to challenging neuropsychiatric symptoms (NPS) and may lead to inappropriate prescription of psychotropic drugs. However, good quality studies on NPS in this under-researched population are lacking. This study examined the prevalence and severity of NPS in residents with KS living in specialist LTCFs and the associated distress on care staff.
Methods: A cross-sectional, observational study was conducted among 281 residents with KS living in nine specialist LTCFs in the Netherlands. Data were obtained using structured interviews with care staff, elderly care physicians, and residents. The prevalence and severity of NPS were measured with the Neuropsychiatric Inventory–Questionnaire (NPI-Q). The associated caregiver distress was assessed with the NPI Distress Scale (NPI-D) according to the nurse or nursing assistant.
Results: Almost all residents (96.4%) showed at least one NPS and 45.8% showed five or more symptoms. Irritability/lability (68.3%), agitation/aggression (58.7%) and disinhibition (52.7%) were most prevalent. While NPS scored overall low on severity, half of the residents (49.1%) had at least one severe NPS. Care staff experienced low levels of distress associated with NPS.
Conclusions: This study demonstrates that NPS are highly prevalent in residents with KS, but manageable for care staff. Acquiring more insight in NPS and its associations among residents with KS is important to better understand and reduce these symptoms. This may improve the quality of care of these residents.

P-044
NEVIP, a new test assessing visual perception in elderly

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Objective: Visuoperceptual deficits are common in neurodegenerative diseases, especially in dementia with Lewy Body, with high impact on diagnosis and prognosis. In the geriatric population, testing visuoperception is rare because of decline in other cognitive domains and motor difficulties. The NEVIP is a new, easy to use, and quick computer based battery, which evaluates visuoperceptual deficits. We aimed to study, in routine care, the feasibility of the NEVIP, and its performance compared to paper-and-pencil tests, in the geriatric population.
Methods: We conducted a prospective study in a French geriatric medical center. During 3 months, we recruited patients with memory complaint, MMSE $\geq$18 and without significant visual impairment. Visuoperception was examined with usual tests (Benton Judgment of line orientation, Incomplete Letters of VOSP, PEGV's overlapping figures and Rey-Osterrieth figure complex copy) and NEVIP, which was composed of 4 subtests (angle, color, form and motion perceptions). Memory and executive functions were also evaluated and compared with NEVIP.
Results: Thirty patients were included with an average age of 81.9±5.3 and an average MMSE of 24.8±2.8. Global NEVIP score and angle perception score were correlated with visuoperception score even after controlling for executive functions. Motion perception score was specifically correlated with both visuoperception and executive scores. Color perception score was only correlated with executive score.
Conclusions: We highlighted multiple correlations between NEVIP and standard paper-and-pencil tests assessing visuoperception. Our finding suggests that the NEVIP battery could be a quick and easy alternative to explore visuoperception deficits, including in the geriatric population.

P-045
Optimising falls risk assessment in memory services: sharing best practice across geriatric and psychiatric services in England

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Background: In the UK, a variety of medical specialists are involved in delivering memory services and diagnosing dementia. As people with dementia have an increased risk of falling, understanding variation in falls risk assessment in memory services will clarify the implementation approach needed to improve effective assessments.
Methods: Comparative case study design of four large regional National Health Service (NHS) memory services in England involving geriatricians or psychiatrists.
Methods: Included: i) document analysis of local falls policies including assessment and referral arrangements for those at risk; ii) observation of falls risk assessment procedures in memory services (total=17.5 hours); iii) semi-structured qualitative interviews (n=30) with multi-disciplinary memory and falls service providers. Interviews were audio-recorded, transcribed and analysed using thematic analysis and NVivo software.
Results: Three key themes emerged: i) identifying people at risk of falling is regarded as a high priority among memory services, ii) memory service providers varied in confidence and knowledge in performing falls risk assessment and, iii) standardised assessments and electronic prompts for assessment and referral to falls prevention services are underutilised. Falls risk assessment was conducted by all memory services, but assessment methods varied. Most used patient self-report, asking recommended questions about the frequency of falls in the previous 12 months, problems with mobility, gait and balance and occasionally fear of falling. Brief observation of gait was performed, but objective measures (e.g. Timed Up and Go test) were not routinely performed.
Conclusions: Improving case finding of people at risk of falling in

memory services requires embedded standardised assessments and simplified care pathways.

P-046
Physical activity, physical function, and gait in persons with dementia

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Introduction: For persons with dementia, PA may influence physical function and ability to perform activities of daily living. The aim was to investigate differences in PA, physical function, and gait function between older adults with normal cognition/mild cognitive impairment (MCI), mild, and moderate/severe dementia.
Methods: This cross-sectional study included 100 home-dwelling older adults from an outpatient geriatric clinic. Cognitive impairment was categorised by using clinical dementia rating scale (CDR), CDR 0 was normal, CDR 0.5 was MCI, CDR 1 mild, CDR 2 moderate and CDR 3 severe dementia. We used accelerometers to measure PA, the Short Physical Performance Battery (SPPB) and gait speed to measure physical function, and an electronic gait mat to evaluate gait characteristics. Statistical analyses included one-way ANOVA.
Results: Participants (mean age 78.9 years, SD 6.7, 57% women) average upright time was 301 min/day and gait speed was 0.93 m/sec. Upright time, SPPB, gait speed, step length, and walk ratio differed between groups. Post hoc tests revealed significant differences between CDR 0/0.5 and CDR 1 for upright time (345.7 vs. 265.7 min/day, p=0.011), SPPB (10.4 vs. 8.3 points, p=0.001), and step length (0.6 vs. 0.5 metres, p=0.003), and CDR 0/0.5 and CDR 2/3 for SPPB (10.4 vs. 8.1 points, p=0.004), gait speed (1.1 vs. 0.8 m/sec, p=0.001), and step length (0.6 vs. 0.5 metres, p=0.002).
Conclusions: Results indicate that PA, physical function, and gait differ depending on the severity of cognitive impairment and highlight the need for including such measures in the evaluation of geriatric patients.

P-048
Physical fitness in older people recently diagnosed with cognitive impairment compared to older people recently discharged from hospital

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Introduction: There is evidence of an association between cognitive function and physical fitness. The aim of this study was to compare physical fitness in patients with cognitive impairment with a group of older people recently discharged from hospital. By comparing two groups of older persons with different health problems, we wanted to highlight how affected physical fitness can be in older people with cognitive impairment. Early detection is essential in order to prevent further decline through physical activity interventions and rehabilitation strategies.
Methods: The sample includes baseline data from two study settings and has a cross-sectional design. 98 patients recently diagnosed with cognitive impairment and 115 patients recently discharged from hospital participated. Associations between the study group variable and different components in the Senior fitness test were examined, controlling for demographic factors and comorbidity.
Results: The main findings showed that the group recently diagnosed with cognitive impairment indicated poorer results on three of six physical fitness Components, Chair sit and reach-test, Up&go test and 6-min walk ($p<0.05$) compared to older people recently discharged from hospital.
Conclusion: This study shows that the level of physical fitness was low among older adults with cognitive impairments compared to older people discharged from hospital. Thus, this study supports that public health initiatives should be designed to reduce passive sedentary behavior in older adults with cognitive impairment. Older adults with cognitive impairment are in need of individually tailored physical activity programs to increase the level of physical fitness.

P-049
Predictors of functional decline among Portuguese hospitalized older adults

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Introduction: Functional decline (FD) represents the most frequent adverse event among hospitalized older adults, about 30–60%. This decline during hospitalization is associated with poor outcomes including death both during and following hospitalization. This study aim to estimate the incidence of FD and to examine the predictors of FD in hospitalized older adults.
Methods: A Cohort study was perfomed. Funcional status was measured at three moments: two weeks before admission (baseline), discharge and three months after discharge. A demographic and clinical survey was conduct at admission moment and Katz scale administered in three moments. Logistic regression analyses were employed to examine the predictive fators. SPSS software, version 20, was used for the statistical analysis.
Results: Of the 117 older patients, 55% experienced FD at discharge and 35.5% at three months after discharge. Of the 117 older patients, 55% experienced FD at discharge and 35.5% at three months after discharge. Logistic regression revealed delirium, not having a partner, prior social support, previous hospitalization, cognitive decline and restraint use were significant predictors of FD between baseline and discharge. The advance age, delirium and risk assessment of FD at baseline were significant predictors of FD three months after discharge.
Conclusions: The higher prevalence of DF highlights the importance of prevention in Portuguese hospitals. Some of predictors occur in the health-disease process, but others may be associated with hospital practice. Thus, implementing interventions directed at some of these predictors, such as restraint and delirium, may contribute to preventing the decline.

P-050
Predictors of institutionalization for Alzheimer's patient living at home with a family caregiver

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Introduction: Determining the predictive factors for institutionalization of Alzheimer's disease patients is a priority to prevent care pathway breakdowns. If the role of patient's related covariates is well described, few studies evaluated the impact of caregivers' characteristics.
Purpose: To identify predictors of institutionalization at one year by a simultaneous evaluation of the patient-caregiver dyad. The primary endpoint of this prospective study was the institutionalization of the Alzheimer disease patient at 1 year follow-up.
Methods: Between mars 2012 and December 2013, 97 dyads were recruited through a Memory Resources & Research Centre: the

patient and his unformal caregiver living with him at home. After information and consent, patients and caregivers were evaluated every six months according a standardized assessment including medical, psychological, behavioral, economic, environmental and formal aids. Statistical analyses included correlations analysis, univariate and multivariate logistic regressions.
Results: At one year, 22 patients (22,7%) were institutionalized. In univariate, characteristics significantly correlated with institutionalization were: (i) patient-related: age, severity of cognitive impairment (MMSE score), taking antipsychotic treatment, functional disability (IADL) and (ii) caregiver-related: moderate to high burden (Zarit). In multivariate, patient's age and antipsychotic treatment were the only significant independent predictors of institutionalization (respectively p=0,007 and p=0,010). A model with patient's characteristics only could classify correctly 81,6% of the institutionalizations. Adding caregiver's characteristics did not improve the model.
Conclusions: Risk factors for institutionalization of patients living at home with a family caregiver are mainly patient-related. Taking an antipsychotic treatment is a strong predictive factor of institution.

P-051
Prevalence of cognitive impairment in patients with type 2 diabetes: a systematic review and meta-analysis

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Introduction: Mild cognitive impairment (MCI) and dementia are common in patients with type 2 diabetes (T2DM), but published results vary and lack precision. We performed a systematic review and meta-analysis to provide a precise MCI and dementia prevalence estimates in patients with T2DM and clarify the heterogeneity in reported results.
Methods: The MEDLINE and EMBASE databases and the Cochrane Central Register of Controlled Trials were searched for studies using a list of keywords. Articles were included if they (1) reported patients with T2DM as a primary study group, (2) reported MCI or dementia using a validated instrument, (3) reported MCI or dementia prevalence in patients with T2DM, and (4) were performed prospectively in a population-based setting. Data were pooled using a random-effects model, and heterogeneity was explored using stratification and random-effects meta-regression.
Results: Of the 596 potentially relevant studies, 32 were included in the meta-analysis. The overall pooled MCI and dementia prevalence in patients with T2DM were 25% (95% CI, 12–39; I2 =90.2%) and 4% (95% CI, 3–5; I2 =88.2%), respectively. Studies with older patients and longer T2DM durations reported significantly higher prevalence estimates, whereas glucose control, insulin usage, disease subtype, and diagnosis method did not significantly influence the pooled prevalence.
Conclusions: The MCI and dementia prevalence in patients with T2DM are high, and older patients with longer diabetes duration have a greater burden of MCI and dementia. MCI and dementia prevalence estimates for patients with T2DM can guide both clinical decisions and public health policy.

P-052
Preventive medicine: physical activity and cognitive disorders

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Introduction: Various dementia-related pathologies currently represent a major public health issue and it's considered as a significant medical activity especially related to the population's aging. The practice of regular physical activity already represents a protective factor known and recognized in several fields such as cardiovascular diseases, cancer, diabetes or even osteoporosis. The current recommendations yield merely a few prevention and drug treatments that only allow for partial control of the disease. As a matter of fact, as physical inactivity prevails in industrialized countries, it has become a public health issue. A part from the prevention of cardiovascular risk factors, no preventive link has so far been established between the practice of regular physical activity and the advent of cognitive impairment later on. However, some assumptions seem to highlight the possibility that a protective factor link might exist. Faced with an increasing prevalence, approaching these pathologies on the preventive level could be a new element in the context of a preventive activity in primary care.
Method: The present study establishes a global description of the characteristics of a population who consult a memory consulting center for a memory troubles, and compares the different physical activity groups with each other in order to observe the possible influence of physical activity on the dementia process.
Results and Conclusion: This is to provide an additional argument in favor of the practice of regular physical activity so as to establish an early preventive management of dementia pathologies in primary care.

P-053
Prognostic impact of "syncopal-like falls" in elderly patients with dementia: Preliminary results of the follow-up of the "Syncope and Dementia" Study

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Objectives: Syncope and falls are one of the main causes of hospitalization in elderly patients with dementia. Aim of the observational, multicenter "Syncope and Dementia" (SYD) study was to investigate the etiology of transient loss of consciousness suspected for syncope and unexplained falls in elderly adults with dementia. The present follow-up study was aimed at identifying predictors of mortality.
Methods: Of 532 patients enrolled in the SYD study (mean [SD] age 83.5±6.2 years) from February 2012 to December 2016, preliminary follow-up data were available in 355 patients (66.7%). Mortality were investigated during a mean follow up of 197.4±128.5days. Unexplained fall with a final diagnosis of syncope was defined "syncopal fall", unexplained fall was considered "non-syncopal fall" when a syncopal origin was excluded.
Results: 87 patients died (24.5%) during the follow-up. In this subgroup, pathological electrocardiographic findings were more common (p=0.042), particularly persistent or permanent atrial fibrillation (p=0.041), they had a higher heart rate (p<0.001) and a

longer QT interval (p=0.002). A higher mortality rate was observed in patients with non-syncopal falls compared with patients with syncopal falls or confirmed syncope (36.9% vs 24.7% and 16.9%, p<0.002). At logistic regression, a diagnosis of non-syncopal falls (OR 2.753 [1.595, 4.750], p=0.001), male gender (OR 1.448 [1.226, 1.889], p=0.001) and functional status (OR 1.135 [1.001, 1.287], p=0.048) were predictors of mortality.
Conclusion: Non-syncopal falls are predictive of short-term mortality in elderly patients with dementia. It is necessary to pay attention to patients with non-syncopal fall that required greater supervision and should be followed over time.

P-054
Ranking barriers, motivators and facilitators to promote physical activity participation in dementia patients: an explorative study

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Introduction: Community-dwelling dementia patients are inactive most of the day. The purpose of this study was to explore which barriers, motivators and facilitators play a role in promoting physical activity (PA) participation in dementia patients. Results can be used to design effective interventions to promote dementia patients to be physically active.
Methods: Twenty community-dwelling dementia patients (79±5.3 years, 25% female, $\overline{X}$ MMSE = 23±3.5), their (family) caregivers (70±11.5 years, 85% female) and an expert group of physiotherapists (n=15, 41±12.3 years, 73% female) ranked preselected barriers, motivators and facilitators for PA participation in dementia patients. Fifty-five statements were included and ranked by family caregivers and experts on a continuum from − (not important) to +5 (very important). Dementia patients used a ranking method with series of two-choice questions ranging from 0 to 1. Statements were classified by the socio-ecological model, including the intrapersonal level, interpersonal level and community level.
Results: In both caregivers and dementia patients, the motivator "beneficial health effects" scored highest ($\overline{X}$=3.00±1.41 and $\overline{X}$=0.91 ±0.19) for engagement in physical activity. Physiotherapists scored highest on the barrier "loss of initiative" ($\overline{X}$=3.15±1.56). Intrapersonal level factors scores highest compared to factors from interpersonal level and community level.
Conclusions: Experts focus strongly on barriers to engage in physical activity participation, whereas caregivers and dementia patients focus more on motivators and facilitators. The current study suggests that intrapersonal factors are most important to promote PA in dementia patients, for example by communicating the benefits of PA.

P-055
Relationship between white matter hypointensities and daily life activity tests in Alzheimer's patients

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Objective: Cerebral white matter hyperintensity is frequently seen in patients with Alzheimer Diseases (AD) and evaluated by using hypointensity in T1 imaging sequence and fazekas scaling in T2 imaging sequence. The aim of this study is to demonstrate the relationship between fazekas scale, T1 hypointensity and instrumental and basic daily living activities in AD patients.
Methods: Thirty-seven patients with AD were included. T1 hypointensity and fazekas scale of patients were performed by two radiologists using FLAIR sequence images on the transverse plane and by visual analysis. Daily life activities were assessed by questionnaire.
Results: Fazekas scale was found to be significantly correlated with instrumental (r=0.553, p=0.001) and baseline daily life activity score (r=0.378, p=0.021). The cortical white matter T1 hypointensity was found to be significantly and negatively correlated with instrumental (r=−0.628, p=0.009) and baseline daily life activity score (r=−0.488, p=0.050).
Conclusion: Control of vascular risk factors provides an increase in daily living activities in alzheimer patients and reducing the workload of caregivers. Fazekas scale and T1 hypointensity are useful tool to assess and monitor vascular risk factor in alzheimer disease.

P-056
Renal Function and Cognitive Decline in in the frail elderly. The ReFiCI (Chronic Renal Failure in Cognitive Impairment) study

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Introduction: Frailty is associated both with an increased risk of cognitive decline, and the development of Chronic Kidney disease. In primary care units Frailty Ambulatory is dedicated to elderly people and is an example of health innovation. The aim of the present study was to investigate the relationship between renal and cognitive functions in the frail elderly.
Methods: Frailty Ambulatories have to facilitate the "art" of caring complex elderly patients' needs through geriatricians and out-of-hospital network services. We analyzed data from 271 consecutive patients visited in our ambulatories. The starting point is caring patients and their needs. The first step is represented by over-65 year-old patients' selection according to prefrailty and frailty Fried's criteria. We performed multidimensional assessment and kidney function assessment in all the patients.
Results: Of 271 patients, 109 (40,22%) were men, mean age 82,74±6,77 years old; BMI was 22,65±2,21 kg/m^2; CKD-EPI eGFR was 64,25±25,04 ml/min/1,73 m^2. After performing multidimensional assessment we found the following scores: MMSE 12,18±3,65; ADL 0,90±2,02; IADL 0,04±0,189. In the 271 patients analyzed we detected a positive correlation between cognitive function and the estimated glomerular filtration rates (eGFR). After multivariate analysis the relationship was confirmed (beta=0,474; p=0,000).
Conclusions: Experimental activity in Frailty Ambulatories could offer a tool able to recognize conditions of prefrailty/frailty. Frailty, assessed through Renal function and cognitive functions are significanty related in the frail elderly.

P-057
Sensory gating in the elderly with subjective memory complaints: An MEG study

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Introduction: Subjective memory complaint (SMC) has been associated with an increased risk of dementia. Although SMC can hardly to be determined by neuropsychological assessments, functional neuroimaging offers an alternative method to probe this symptom. Sensory gating (SG), an attenuation of the neural response to the

second identical stimulus, is considered as an automatic process of the brain to inhibit redundant sensory inputs. Accumulating evidence showed that patients with Alzheimer's disease demonstrated a deficit in SG function. However, there has been no study of SG in the elderly with SMC. Thus, we aimed to use a whole-head magnetoencephalography (MEG) to address this issue.
Methods: We recruited 15 healthy older adults and 15 elderly seeking help for their SMC at an out-patient memory clinic. Participants were cognitively normal as evaluated by Cognitive Ability Screening Instrument (CASI), with no between-group differences. An auditory paired-stimulus (S1-S2) paradigm was delivered to each subject during MEG recordings. SG ratio was calculated as S2/S1, and a lower value indicates a better function.
Results: SG ratio was obtained from superior and middle temporal gyrus (STG, MTG), inferior frontal gyrus (IFG) and orbitofrontal cortex (OFC) of each hemisphere. Compared to the controls, elderly with SMC exhibited significantly decreased S2/S1 ratios in the left STG and MTG, suggesting an enhanced SG ability in SMC.
Conclusions: This is the first study to show that increased SG function is present in elderly with SMC. Our data also suggest that self-reported SMC is a reflection of objective alterations in brain function.

P-058
Stop Walking While Talking test: Is it related to cognitive function?

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Objective: To assess the relationship between cognitive function and the Stop Walking While Talking (SWWT) test.
Patients and method: A prospective, observational and cross-sectional study conducted on 108 patients (62% women), with a mean age of 80.5±8.4 years. Twenty-three (21.3%) of them were living at home, 24 (22.2%) in a nursing home and 61 (56.5%) in an intermediate care unit. The SWWT test was performed on all the patients. All patients were able to walk (with or without walking aids). Based on the results of the SWWT test, patients were divided in two groups: "stoppers" and "non-stoppers". Mini-mental State Examination of Folstein (MMSE) was performed. The cognitive status was categorized in absence of impairment (MMSE: 21–30 points) and moderate cognitive impairment (MMSE: 15–20). Patients with severe cognitive impairment (MMSE <15 points) and those with significant auditory or visual deficit were excluded.
Results: The stoppers group of patients had a mean of MMSE 21.6±5.1 and the non-stoppers 24.4±4.0, (p=0.004). Of the 50 non-stoppers patients, 9 (18%) had cognitive impairment and 41 (82%) had not. Of the 58 stoppers patients, 27 (46.5%) had cognitive impairment and 31 (53.5%) had not, (p=0.002).
Conclusions: The stoppers patients had greater cognitive impairment, suggesting a relationship between the presence of cognitive impairment and less ability to perform double tasks.

P-059
The test of the watch drawing as a method of evaluation of cognitive deterioration

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The clock drawing test is widely used in clinical practice because it is a fast and reliable method for assessing cognitive impairments.
Objective: To assess and compare the cognitive status of two groups of patients attending the hospital day care center.
Material and methods: Observational, longitudinal, descriptive study. The clock drawing test was carried out to assess the cognitive status of two groups of patients attending the day care center during the months of November and December 2014. One group had functional recovery and the second had cognitive stimulation. Variables: sex, age, domicile, pathological antecedents, reason to go to day care center and in the second group, the prescribed treatment for cognitive impairment. SPSS v.15 statistical treatment.
Results: n=30 36.7% males. 63.3% females. Group 1 (functional recovery) 43.3%. Group 2 (cognitive stimulation) 56.4%. Average age: 81.2 years. Domicile: alone 24.5%, with marriage 47.1%, with family 28.4%. Average pathology: 5.6. Hypertension, dyslipidemia, depressive disorder and diabetes more frequent pathologies. Group 1: derived to Day center by: hip fracture 69%, vertebral fracture 7.7%, stroke 7.7%, discopathy 7.7%, fall syndrome 7.7%. Group 2: derived by: Degenerative dementia: 64.7%, mixed dementia: 23.5%, vascular Parkinsonism 5.9%, stroke sequels 5.9%. Test of the clock: 65.4% pathological. Group 1: pathological 50%; Group 2: 17.6% pathological.
Conclusions: Increased cognitive impairment in women and in the functional recovery group. Worst functionality worst result of the clock drawing test. It is the pluripatology a protective factor for dementia or, pluripathological patients are less concerned about their memory?

P-060
The Cafe-multimedia: a promising psychosocial intervention for frail older adults

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Objective: Psychosocial interventions using technologies could promote social ties in frail older adults at risk of isolation. The objective of this pilot study was to evaluate the effects of a psychosocial intervention using ICT on social links and technology acceptance parameters in frail older adults.
Methods: Participants (n=13) in group with mean age 75.9 (± 8.8) were trained to use Tablets and Smartphones by two psychologists. The course encompassed two-hour sessions per week for three months. Measures at baseline and after intervention included assessment of the Montreal cognitive assessment (MoCA), Mini Geriatric Depression Scale (GDS), loneliness scale (UCLA), perceived social support (QSSP), and questionnaires of feeling of competency in ICT and of acceptance of ICT. Opinions and perceptions of participants about the psychosocial intervention were collected at the end of the program by mean of a focus group and interviews.
Results: There was a significant increase in the scores of acceptance of ICT and feeling of competency in ICT, but no changes in MoCA, GDS, UCLA and QSSP between baseline and the end of intervention. Results showed that the intervention provided 1) cognitive stimulation and positive engagement with the outside world, 2) positive social contacts with other participants but frustration for making real friendship, 3) engagement in technology learning and use provided that technology is easy to use and services can facilitate every day activities. This type of intervention can be an effective tool in supporting older people at risk of isolation and helping to increase technology adoption.

P-061

The effect of a cognitive stimulation program, with initial, maintenance program and follow-up, on institutionalized elderly: a randomized controlled trial (a research protocol)

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Introduction: Cognitive stimulation therapy (CST) offers a range of activities, which provide general stimulation. Evidence suggests that cognitive stimulation (CS) has a positive effect on cognition and depressive symptomatology (DS). This research aims to analyse the effectiveness of CST, on cognition and depressive symptoms in older adults in nursing homes (NHs) in different periods of time.
Methods: A randomized controlled trial will be developed in residents from five NHS. If required, "intention to treat" analysis and per protocol analysis will be performed. During 7 weeks, participants of the experimental group will participate in 14 CST sessions, and participants of the control group received usual care. Then during another seven weeks, participants of the experimental group will participate in 16 CST sessions (maintenance program), and participants of the control group still received usual care. The Mini-Mental State Examination, the Geriatric Depression Scale-15, will be administered at baseline, postintervention of the initial program, postintervention of the maintenance program and 3 months after the end of the program.
Results: The present study will provide information on how effective the CST is over time.
Conclusions: This study will bring evidence about CST's relevance in elders in NHs, guiding recommendation of CST in this context.

P-062

The effect of cognitive stimulation in the elderly

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Introduction: Evidence suggests that cognitive stimulation (CS) has a positive effect on cognition and depressive symptomatology (DS). This study aims to demonstrate that the implementation of the CS program "Making a Difference" (MD) improves cognition and depressive symptoms in elders in nursing homes (NHs).
Methods: This was a multicentre quasi-experimental study of 76 elders (59 women and 17 men), with a mean age of 84.28, from 5 nursing homes, in rural, semi-rural and urban environments in Portugal. Participants attended 14 sessions twice a week over seven weeks. The Mini-Mental State Exam and the Geriatric Depression Scale-15 were administered at baseline and postintervention.
Results: T test for related samples revealed that, there is evidence of improvement in cognition ($p<0.001$), and in depressive symptoms ($p<0.01$) in the post-test scores compared with baseline. From the clinical point of view, 42 elders (55.3%) improved cognition and 25 elders (32.9%) maintained. Regarding depressive symptoms, 36 elders (47.4%) reduced while 21 elders (27.6%) maintained.
Conclusions: Our results showed improvement in elders' cognition and depressive symptoms after a seven weeks intervention. Therefore we recommend its implementation as a component of health promotion care plan for the elderly in nursing homes context. Further studies should include larger samples as well as maintenance program and follow-up in order to strengthen and clarify these results.

P-063

The effect of continuous positive airway pressure (CPAP) therapy on cognitive functions in patients over 60 years old with moderate to severe obstructive sleep apnea

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Introduction: Obstructive sleep apnea (OSA) characterizes apneas and hypopneas during sleep. Daytime sleepiness and cognitive dysfunction were reported in untreated OSA patients. However, theeffect of Continuous Positive Airway Pressure (CPAP) treatment on cognitive functions, daily life activities, depression, anxiety and quality of life in elderly is unknown. The aim of our study was to investigate the effect of CPAP treatment on the parameters of the OSA patients over 60 years of age.
Method: ESS (Epworth Sleepiness Score), AHI (apnea-hypopnea index), ODI (oxygen desaturation index), sleeping SpO2 <90% of patients >60 years old with moderate to severe OSA who applied to the pulmonary diseases outpatient clinic between May 2014-January 2015 were recorded. At least 5 days/week-at least 4 hours/day using CPAP, was accepted as compatible to treatment. Neuropsychological assessment was performed before CPAP treatment and after 3-months of CPAP. Digit span forward-backward, semantic-phonemic verbal fluency, trail test, stroop test, visiospatial perception, instant-delayed story memory, instant memory and learning score were determined. Functionality was evaluated using Katz activities of daily living and Lawton instrumental activities of daily living scores, depression by geriatric depression scale, anxiety by STAI anxiety scale, and quality of life by EQ5 test. Baseline values were compared with values after 3 months of effective CPAP use.
Results: Thirty patients included to the the study. Analysis was completed on 16 patients due to device incompatibility and follow-up drop (Poster table 1). After 3-month CPAP result in significant improvements in clock drawing test, recognition, instant memory and learning scores (Poster table 2).
Conclusion: In our study, 3-month CPAP treatment improved executive functions (attention and planning) in patients. The results of our study suggest that CPAP therapy is effective in preventing cognitive impairments in older OSA patients.

P-064

The effect of implementation a program the physical activity in the functionality and well-being in old people

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Introduction: The increasing the number of old people with chronic illness to live in the community, allows the involvement of public health, management of chronic disease, promoting well-being and functionality of these people. The Promoting physical activity in old people has an important role for public health. The aim of this study is implementation of a program of physical activity to improve the functionality and well being in old people.
Methods: This is a prospective study. The study includes 17 people, aged between 66 and 83 years old, 75% female, 65% married, were all retired and all had functional independence. The data collection

was performed on senior's universities in Lisbon - Portugal. It was applied in the program of self-regulation the promotion of physical activity (IPPA), 90 minutes for a week, lasting seven weeks. We used one question "Please classify your functionality?" with an answer in numerical scale between "0" and "11" and the Personal Wellbeing Scale (PWS) before implementing the program (time A) and end implementing the program (time B).
Results: The correlations between the functionality perception and well-being, before application of IPPA ($r=0.42$, $p<0.01$), and the end of the implementation of IPPA ($r=0.68$, $p<0.01$). The results show that the IPPA improves the correlation between functionality and well-being.
Conclusions: We think this program promotion and awareness of the importance of physical activity, using the conceptual model of self-regulation, can be very beneficial for Functionality and well-being in old people.

P-065
The effects of cognitive impairment on health-related quality of life in geriatric oncology patients

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Background: Cancer incidence increases with age. Quality of life (QOL) has become a major factor when considering treatment approach and medical care in geriatric oncology. Various QOL measures have been recognized to help treatment decisions, prognostic and survival assessment. The presence of cognitive disorders is a potential practical problem with QOL measurement. The objective of this study is to describe determinants and level of QOL in elderly cancer patients with cognitive decline.
Methods: More than 100 consenting patients $\geq$74 years of age, with a progressive cancer (solid tumors or hemopathy, treated or not) were included from a geriatric oncology clinic in a French university hospital. Determinants of their QOL were collected by open-ended questions and the validated QOL questionnaire EORTC QLQ-C30 (version 3.0). Socio-demographics (age, sex, lifestyle), cancer (type of cancer, metastatic or not, curative treatment or not), comorbidities, G8 score and geriatric characteristics (cognitive and sensorial functions, depression, nutrition, walking speed and perimeter, grip strength, pain, hemoglobin, creatinine clearance, autonomy for activities of daily living ADL/IADL) were also collected. Cognitive function was measured by Montreal Cognitive Assessment (MoCA). We compared the determinants and level of QOL in older cancer patients with or without cognitive impairment.
Results: We present socio-demographical, medical and QOL data associated with the presence of cognitive decline in an elderly and frail geriatric oncology population.
Conclusion: QOL and cognitive function should be integrated into geriatric oncology evaluation in order to make the best treatment decision.

P-066
The MINDMAP Consortium – Survey on mental health promotion and mental disorder prevention for older people in cities (HORIZON 2020, research and innovation action 667661)

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Introduction: The MINDMAP consortium (2016–2019) aims to identify opportunities offered by the urban environment for the promotion of mental wellbeing and functioning of older individuals in Europe, by bringing together 10 European cities with urban longitudinal aging studies: GLOBE, HAPPIE (3 cities), HUNT, LASA, LUCAS, RECORD, Rotterdam study, Turin study. A survey on mental health-care planning policies, strategies and programmes addressing the heterogeneous group of older people covering health promotion to need of nursing care was performed for profound data interpretation.
Methods: First, the MINDMAP partners identified experts in their cities, who had an overview of the current mental health sector. Then, a structured telephone interview (1–2 h) with the expert was performed always by the same person from the Albertinen-Haus. All interviews were transcribed and analysed using an analysis pattern based on the WHO Public-Health Framework for Healthy Aging including the geriatric functioning continuum [1].
Results: Almost every city has developed specific mental health-care planning policies and strategies with corresponding intervention programmes. However, it appears that the focus on older citizens should be strengthened. Examples of good practices were based on national guidelines and local strategies to strengthen both physical and mental health. Promising intervention programmes for older people made use of a target group identification based on the bio-psycho-social approach.
Conclusions: The findings will contribute to future-proof preventive strategies in urban settings favouring functional ability seen as a combination of assessing physical and mental capacities.
References:
[1] WHO. World Report On Ageing & Health. Geneve, 2015.

P-067
Towards a graduated detection and diagnosis strategy of neuro-cognitive disorders in Europe

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In Europe, between 40% and 50% of demented persons are undiagnosed. When the etiological diagnosis is performed, it is mostly done lately at a stage of advanced autonomy loss or behavioural disorders. One of the reasons of poor diagnosis relies on a lack of cognitive detection in primary care. Under the authority of the European Commission, the new Joint Action "Act on dementia" proposes a workpackage dedicated to "Diagnosis and post-diagnosis supports" to enhance rates and quality of neurocognitive disorder diagnosis. As the detection and diagnosis procedures are not always clear for primary care professionals, the workpackage group proposes a consensual strategy to better understand the steps of graduated detection and diagnosis supports, as well as the links between care pathways and research dynamics. With that aim, a consensus has been adopted and discloses: 1 – a neurocognitive disorder detection step in primary care, 2 – a first step of etiological diagnosis dynamics of major neurocognitive disorders, 3 – a second step of etiological diagnosis that may be proposed for complex cases, 4 – a specific pathway dedicated to patients with a minor neurocognitive disorder, and patients who want to access to research. At each step, post-diagnosis supports, including research dynamics, are tailored to the patient-caregiver dyad profile and wills. This consensual European diagnosis strategy will help professionals to better explain to patients and caregivers the content of clinical, neuropsychological, biological and neuro-imaging supports that may be proposed and adapted to the patient.

P-068

Trajectories of cognition among older patients from hospitalization to three months post-discharge

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Acute hospitalization often initiates events leading to changes in cognitive functioning. The majority of studies that investigated cognitive trajectories over time focused on specific patient-populations such as patients who suffered a hip fracture, stroke, or delirium. Moreover, previous studies have had only long-term follow ups. Trajectories of cognitive changes within the short critical three months post-discharge are hence unknown. Therefore, the aim of this study was to identify distinct trajectories of cognitive functioning from acute hospitalization up to three months post-discharge and to study the incidence of functional decline and mortality. We conducted a multicenter prospective cohort study, the Hospital-Associated Disability and impact on daily Life (Hospital-ADL) study, including 400 acutely hospitalized patients of 70 years and older, who had a minimal MMSE-score of 15 at admission. Data were collected in six hospitals in the Netherlands. We identified three cognitive trajectories: 1] consistently high level of cognitive functioning (69%), 2] moderate cognitive functioning and improvement (22%), and 3] consistently minimal cognitive functioning (9%). In the group with a consistently high level of cognitive functioning, 14% had functional decline and the mortality rate was 11% at three months post-discharge. Of the participants with moderate cognitive functioning and improvement, 24% experienced functional decline and the mortality rate was 6.5%. Finally, of the participants with consistently low cognitive functioning, 41% had functional decline and 14% died within three months post-discharge. These distinct trajectory groups of cognitive functioning provide information about the possible prognosis of cognition and functional recovery after an acute hospitalization.

P-069

Validation of the 7-point scoring system of the clock-drawing test for the screening of cognitive disorders in elderly patients: A pilot study

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Goal: The main objective was to assess diagnosis performances of the 7-point Clock-Drawing Test (CDT) using a pre-drawn circle for screening of cognitive disorders in elderly patients and the interest to integrate an additional task of copy.

Methods: The CDT was administered to 103 elderly patients divided in 3 groups according to their score at the Clinical Dementia Rating (CDR): 0: no cognitive impairment; 0.5: very mild cognitive impairment; CDR1, 2, 3: mild, moderate and severe dementia. The CDT and its copy were scored in 7 points according to the system of Solomon [1]. All the patients had an initial cognitive assessment using traditional screening tests.

Results: Patients with CDR0 were significantly younger and of a higher education level. The comparison of the CDT scores between the three groups showed a significant difference ($p<0.0001$). The cut-off score ≤ 6 gave a specificity of 71.4% and a sensitivity of 70.8% for CDR0.5, 93% for CDR$\geq$1. In addition, 41.2% of patients with CDR0.5 didn't normalize their score in copy. The post-hoc subgroup analysis showed a decrease of the sensitivity (55%) for the youngest patients CDR0.5 (less than 82 years).

Conclusions: The study showed that the 7-point scoring system of the CDT allows early identification of cognitive decline, despite a decrease of the sensitivity for the youngest subjects. Furthermore, the additional copy task showed that a large proportion of the patients with very mild cognitive impairment present cognitive disorders potentially associated with dysfunction in the parietal region of the brain.

References:

[1] Solomon PR, Hirschoff A, Kelly B, Relin M, Brush M, DeVeaux RD, Pendlebury WW. A 7 minute neurocognitive screening battery highly sensitive to Alzheimer's disease. Arch Neurol. 1998 Mar;55(3):349–55.

P-070

Visual [18F]Flutemetamol PET read and CSFs measures in routine geriatric assessment of dementia

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Introduction: Amyloid PET imaging and CSF beta-amyloid (Aβ42) measurement are two valid alternatives for determining the presence of pathological amyloid load. The accuracy of measurement by the two diagnostic modalities was previously found by Palmqvist et al., 2015 to be comparable. However, the CSF Aβ42 threshold required to establish a "positive"diagnosis of beta-amyloid plaque accumulation is somewhat arbitrary and varies between sites. This 60-patient cohort from routine clinical assessment compared matched pairs of CSF Aβ42 with [18F]flutemetamol PET read results to assess the concordance between PET and CSF measures. T and P-tau measures were also collected.

Methods: During the course of 18 months, 60patientsreferred by their general practitioner to the Oslo University Memory Clinic with cognitive complaint (mean age 69; range 49 to 81)underwent lumbar CSF fluid samplingand PET scanning following the intravenous injection of approximately 185 MBq [18F]flutemetamol. Aβ42, T-tau, and P-tau concentrations were determined in the Norwegian Central CSF Laboratory in Akerhus University Hospital, Oslo using INNOTEST enzyme-linked immunosorbent assays (Fujirebio, Ghent, Belgium). PET [18F]flutemetamol images were read and classified by readers trained per the manufacturers instructions as either positive or negative.

Results: [18F]Flutemetamol PET scanning resulted in 38 subjects being amyloid-positive and 22 negative. 17/22 negative amyloid scan had Aβ42 measures above 770 pg/mL.15 cases below 550 pg/mL had a positive PET read. The remainder of the 28 cases had Aβ42 measures between 560–760 pg/ml with 23/28 reading amyloid positive in the PET read and only 5/28 reading negative.

Conclusion: Results indicate that a threshold of over 720 pg/mL captures approximately 78% of PET negatives (18/23), whilst below 720 pg/mL leads to a PET positivity rate of 89% (33/37 cases). This cutoff is higher than regularly accepted in routine practise (550 pg/mL). 17 cases out of 60 [28%) lie in the range 650–770 pg/mL an area where there is not a consistent pattern of either positive or negative PET scan reads. This data is compared with clinical diagnosis.

References:

[1] Palmquist S, et al. Detailed comparison of amyloid PET and CSF biomarkers for identifying early Alzheimers Disease. Neurology (2015) 85: 1–10.

P-071
Visual scan-path study of social cognition tasks in neurodegenerative diseases: A link between behavior disorders and atypical gaze strategy in social situations

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Introduction: Empathy, Theory of Mind (ToM) and facial emotion recognition impairments are associated with social behavior disorders. This kind of disorders is observed in Fronto-Temporal Dementia (FTD), Dementia of the Alzheimer's Type (DTA) and Parkinson's Disease (PD). Our hypothesis is that patients apply inappropriate visual exploration strategies to decode emotions and intentions of others, explaining misinterpretation of others' intentions, and then inappropriate social behaviors.
Methods: This study, conducted in the Rainier III Gerontologic Center (Monaco), compares eyes movements in social cognition tasks in patients with FTD (n=5), DTA (n=13), PD (n=10) and normal elderly people (n=12). We studied empathy using standardised observation of an artwork, ToM using the "Reading mind in the eyes" test, and recognition of facial emotions using pictures from the Ekman faces library. Behavior was assessed with the Neuropsychiatric Inventory. Finaly, eyes movements were recorded with the EyeBrain Tracker® T2.
Results: We highlighted a link between social cognition impairment, behavior disorder and atypical gaze strategy for decoding facial emotions, with a specific profile for each pathology.
Conclusions: These results open new perspectives for differential diagnosis of dementia especially for an individualized rehabilitation of facial emotion recognition using explicits technics engaging patients to attend to the eye region of faces. This kind of rehabilitation could be a way to prevent or delay behavioral disorders.

Area: Comorbidity and multimorbidity

P-072
A forgotten cause of falls; onychogryphosis

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An 89 years old lady presented with recurrent falls. She complained of feet pain and no other symptoms. Examination was unremarkable apart from thickened curved hooked discoloured toenails. FBC, kidney and liver functions, TSH and Calcium were all unremarkable. The falls and feet's pain were attributed to onychogryphosis. Onychogryphosis is hypertrophy of the nails resulting in long, curved and thickened nails. It is common in older people; however patients are often reluctant to seek professional advice. It is more common in toenails than in fingernails. Onychogryphosis is most commonly caused by neglect or failure to cut the nails for long periods. It may be also caused by injury or trauma to the toenails by ill-fitting shoes, peripheral vascular disease or diabetes. Damage to the ulnar or median nerves can cause Onychogryphosis of the fingernails. Congenital onychogryphosis of all toenails and fingernails is rare however congenital onychogryphosis of the fifth toe is not uncommon. Clinically, the nails may be so thickened and curved that they look like a ram's horn. The thickened curved nails are difficult to cut especially if left for long periods. Pressure on an affected toenail may cause severe pain and it may predispose to falls. Onychogryphosis can be mistaken for fungal nail infection, because of the yellowish brown discolouration, and treated inappropriately. Affected nails can have infection due to growth of the nails into the skin. The best treatment is prevention by regular trimming of the nails. Once onychogryphosis is established, treatment is by surgical removal of the nail and destruction of the nail bed. Foot and toenail pathology can predispose to falls. Onychogryphosis is an overlooked and under diagnosed contributing factor for falls. Feet inspection should be a routine in assessment of older people especially those with falls.

P-073
Acute functional decline or Guillain-Barre Syndrome?

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Introduction: A 75-year-old woman was hospitalized due to a hypovolemic shock caused by diarrhoea. She had a medical history of hypertension, rheumatoid polyarthritis, thyroid hypofuntion and chronic renal failure. Her prescribed treatment included Léflunomide 20mg, Prednisone 5mg, Bisoprolol 10mg, Levothyroxine 75μg. Activities of daily living at home was about 6/6.
Methods: Acute renal failure (161 μmol/L), hyperkaliemia (6,2mmol/L) were reported. Based on favourable evolution of hypovolemic shock, etiology of diarrhea was not identified (negative CMV, EBV, VIH, Campylobacter Jéjuni). After hospitalization, she had a thirteen days period of functional decline that led to a geriatric rehabilitation. His assessment at admission was ADL: 2,5/6. After 2 days, extreme fatigue and a poor participation were reported.
Results: Clinical examination of lower limbs showed a loss of strength rating at 3/5, hyporeflexia. Upper limbs, pair of cranial nerves were preserved. Saturation value was 98%. We suspected a polyradiculoneuritis that led us to considering an electromyography which concluded a Guillain-Barre Syndrome (GBS). She died 10 days after a septic shock on intestinal perforation.
Conclusions: Acute functional decline is a typical geriatric syndrom based on post acute care complications. Nevertheless, we have to think about others etiology and carry out a rigorous medical examination. GBS's prevalence increases with age and the mortality rate ranges from 5 to 10%. Agent identification was negative but she was immunocompromised due to Léflunomide and Prednisone. Physiopathological pathway is not clearly established but immune reactions could be involved in the process. We made a declaration to the pharmaco-vigilance department.

P-074
Adherence to treatment of patients with chronic pain and osteoarthritis

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Objective: To know the Adherence to the Therapy of Patients with Osteoarthritis and Chronic Pain (CPO), in order to promote improvement interventions.
Methods: Cross-sectional study of a selection of patients (n=104, 52 males and 52 females (F)) selected by non-probabilistic sampling treated in our clinic. With chronic pain and osteoarthritis. The Morisky-Green-Levine trial was also included to assess adherence to treatment. 1 – Have you ever forgotten to take the medication? Yes/No. 2 – Do you take medications at the right time? Yes/No. 3 – If you feel well. Stop taking the medicines? Yes/No. 4 – If you ever feel bad. Stop taking the medicine? No Yes. The data is collected in an Excel spreadsheet and analyzed with SPSS 9.0 for Windows.
Results: Therapeutic Adherence to Chronic Arthritic Pain: Therapeutic compliance, if adequately answered in order: No, Yes, No, No, Therapeutic noncompliance, if the answer is incorrect. Male patients: Therapeutic compliance: 83, 33%. Therapeutic noncompliance: 16.67%. Female patients: Therapeutic compliance: 41, 66%. Therapeutic noncompliance; 58.34%.
Conclusions: Adherence was greater in males 83.33% than in females 41.66%. Taking into account these results, we propose accord-

ingly Interventions designed to improve adherence: 1 – Measures to simplify treatment. 2 – Information and educational interventions in primary care consultations and specialized consultations and in dynamic groups of health education. 3 – Family and social support measures. 4 – Behavioral reinforcement interventions. 5 – Combination of Interventions.

P-075

Assessment of independency in activities of daily living of older patients in nursing departments

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Introduction: Ageing of the population is one of the most urgent health care concern. Long life doesn't necessarily mean healthy life, older patients more frequently experience vulnerability, morbidity, disability, and mortality.
Methods: The study is part of the bigger project which was carried out in 2015 from January to December in one of nursing hospitals in Vilnius with the aim to assess older patients' cognitive functions and variables affecting them. Barthel Index (BI) scale [Mahoney & Barthel, 1965] was used to evaluate basic activities of daily living (ADL). The sumscore from 0 to 20 means total dependence, 21–60 – severe dependence, 61–90 – moderate dependence, 91–99 – mild dependence, 100 – independence. The authors received a permission from Vilnius Regional Biomedical Research Ethics Committee.
Results: The study included 177 patients, 106 women (59.9%) and 71 men (40.1%). The youngest patient was 61 and the oldest 97 years old (mean age – 78.9±8.9). The mean sumscore of BI was 33.31±24.53. No significant statistical differences were found between BI and age groups (p=0.241) and sex (p=0.538). Statistically significant difference was found between BI sumscore and mortality during first month in the hospital (p=0.004): four fifths of the patients who died during the first month were totally dependent on admission.
Conclusions: BI low sumscore is important prognostic factor for negative outcomes in the nursing department.

P-076

Association between dipstick proteinuria and all-cause mortality: a nationwide population-based study in Korea

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Introduction: Proteinuria has been shown to be associated with mortality in various settings, and dipstick urinalysis is used as an initial screening tool to assess proteinuria. We investigated the association between dipstick proteinuria and all-cause mortality in a general population.
Methods: The study population included 17,342,956 adults who underwent health examinations between 2005 and 2008 under the National Health Insurance System. Proteinuria was determined using a single dipstick semi-quantitative urinalysis, and the primary outcome of this study was all-cause mortality. The prognostic impact of proteinuria was assessed by constructing a multivariable Cox model.
Results: The mean age of the study population (53.24% male) was 46.06 years; 724,681 deaths from all causes occurred over a median follow-up period of 9.34 years, and the maximum follow-up was 12.12 years. After full adjustment for covariates, a higher level of dipstick proteinuria indicated a higher risk of all-cause death, and various subgroup analyses, including using age groups divided by 65 years, did not affect the main outcome for the total population. Among older adults ≥65 years old, ≥1+ proteinuria in the group without metabolic diseases (hypertension, diabetes, dyslipidemia, or obesity) resulted in higher hazard ratios than those in the group with metabolic diseases and negative or trace proteinuria.
Conclusions: Our study showed a strong association between dipstick proteinuria and all-cause mortality in this nationwide population-based cohort in South Korea. Dipstick proteinuria is more effective for stratifying mortality in the older adult population than metabolic diseases known to be cardiovascular risk factors.

P-077

Cardiometabolic risk modeling using a typical high risk adult population of sub-Saharan settings

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Introduction: Cardiometabolic risk syndrome is now an acceptable prevalent condition in Africa. There are potential evidence to suggest differences in therapeutic as well as pathogenesis in Africans compared to other human races. Little is known of additional benefits of screening in African environment. The aim of the study was to develop a simple, non-invasive cardiometabolic risk tool for identification of adults at risk of diabetes mellitus in sub-Saharan Africa.
Method: A community based opportunistic screening was conducted among pre-defined high risk population of Dar es Salaam, Tanzania. Data were collected using a locally pre-validated questionnaire provided by Tanzania Diabetes Association after fasting blood glucose measurements. Analysis was done using SAS version 9.2 by fitting linear models. A verbal informed consent was sought to each participant before screening.
Results: We screened a total of 502 residents. A slight male preponderance was noted (male: female =1.8:1). A validated logistic regression model (Adj. R2=0.714) revealed participant's age >65 years (OR=1.6, 95% CI: 1.2–1.87), family history of diabetes (OR=2.0, 95% CI: 1.87–3.1), systolic BP (OR=1.01, 95% CI: 0.97–1.24) and BMI (OR=1.33, 95% CI: 1.00–4.1) to be useful in prediction of diabetes risk. Statistical association was evident between family history of diabetes and diabetes screening results (γ =0.7, p=0.002) No statistical significant effect was found between gender and positive diabetes screening (χ^2=1.66, df=1).
Conclusion: Age of participants, family history of both diabetes and hypertension, BMI as well as systolic measures of BP were predictive of diabetes in this study population.

P-078

Characteristics of gastrointestinal symptoms in older adults with diabetes mellitus

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Introduction: Diabetes mellitus (DM), a frequent condition in elderly, has significant and multiple consequences. Study objective was to identify characteristics of gastrointestinal symptoms in elderly with diabetes mellitus.
Material and methods: A total of 731 subjects, age-range 50–91 years, were included. They were divided into two groups, both presenting DM: 359 adults (50–64 years) and 372 elderly (75–91 years).
Results: There was no significant difference between the 2 groups

regarding obesity ($p>0.05$), but arterial hypertension and dyslipidemia were more prevalent in elderly ($p<0.01$). In elderly diabetes mellitus was diagnosed more than 20 years before inclusion into the study. In elderly diabetes was poorly controlled (higher HbA1c). DM complications were more frequently encountered in elderly, cardiovascular involvement and neuropathy having a leading position, followed by stroke. Gastrointestinal symptoms were: most frequently abdominal pain, followed by heartburn, constipation, appetite loss, early satiety, bloating and nausea. Elderly had more concomitant symptoms than adults had ($p<0.01$), 5 and 6 symptoms, adults presenting mostly 3 symptoms in the same time. Gastrointestinal symptoms increased in poorly controlled DM (increased HbA1c). Number of symptoms increased more significantly in elderly with longstanding DM, as compared to adults ($p<0.01$). Presence of gastrointestinal symptoms was correlated with presence of neuropathy ($r=0.79$). In elderly these symptoms were more evenly distributed amongst the 2 genders, except for constipation and loss of appetite that were more prevalent in women.
Conclusions: Gastrointestinal symptoms in older diabetics pose special problems regarding differential diagnosis, including with cardiovascular diseases, this being complicated by silent presentation.

P-079
Chronic pain and post-traumatic stress disorder in elderly

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Introduction: Recent studies have highlighted the frequent co-occurrence of somatic complaints in Post-Traumatic Stress Disorders (PTSD). Moreover, PTSD symptoms are more severe during associated chronic pain. However, the data about the elderly are very scarce. This study investigates the hypothesis that chronic pains presented by elderly patients in nursing home may be a PTSD manifestation. We argue that the two entities would tend to maintain each other but that a simultaneous treatment could be efficient.
Method: We present five clinical cases of female patients (84, 88, 91, 92 and 97 years). Each patient has recently entered a nursing home (less than one year) and was complaining about a chronic pain that was unexplained by a medical factor. In each case, the pain was measured on Algoplus scale, a detailed physical check-up was negative and a PTSD was diagnosed using a clinical interview and the Clinician Administered PTSD Scale. After diagnosis, a short treatment protocol was proposed to decrease pain and PTSD symptoms. The Algoplus scale and the Clinician Administered PTSD Scale were filled again after treatment and after 6 months of follow-up.
Results: For each patient the reactivation of a trauma has been evidenced. The trauma was related to a war situation (several decades before) or to a recent bereavement in the family. A five to thirteen weeks of specific treatment by cognitive-behavioural therapy (CBT) was efficient with a complete disappearance of pain and PTSD symptoms for more than 6 month.
Conclusion: Our data highlight some mechanisms involved in the pain maintenance in relation with a PTSD, in particular the hypervigilance and the avoidance, and indicate a non medical efficient treatment for PTSD and pain.

P-080
Comorbidity in an elderly cancer population; a cross-sectional study

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Introduction: Comorbidity is prevalent in elderly patients. Handling comorbidity is of paramount importance when treating elderly cancer patients as it may complicate treatment of the cancer disease. Assessment of comorbidity is part of a Comprehensive Geriatric Assessment (CGA). Our aim is to quantify and classify comorbidity in a cohort of elderly cancer patients.
Methods: We performed CGA in 70+-year-old patients with lung cancer (LC), cancer of the head and neck (HNC), colo-rectal cancer (CRC) or upper gastro-intestinal cancer (UGIC) who had been referred to the Oncology Department, Aarhus University Hospital, Denmark for evaluation for cancer treatment. We registered comorbidity and its severity from the patient interview using the Cummulative Indexed Rating Scale- Geriatrics (CIRS-G).
Results: From 8 January 2015 to 31 December 2015, we assessed 217 patients. The distribution of cancers was: 7% HNC, 43% LC, 15% UGIC and 35% CRC. Median age was 75 yrs. (interquartile range (IQR)) 72–80). Median number of comorbidities was 5 (IQR 3–6).46% had vascular-hematopoietic (including anemia) comorbidity, 42% had hypertension, 36% suffered from endocrine-metabolic comorbidity, 26% had a history of cardiac disease, 12% had another cancer disease besides the index disease. 57% of patients had one or more grade-3 comorbidity and 9% had any grade-4 comorbidity. Further details on the distribution of comorbidity will be presented.
Conclusions: Comorbidity is prevalent in elderly cancer patients. Comorbidity in elderly affects a number of organ systems. More than half of patients had severe or extremely severe comorbidity

P-081
Comorbidity in nursing home residents with cognitive impairment

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Introduction: In elderly patients with dementia there is a high level of multiple pathology associated. The objective was to assess whether there are differences in comorbidity among nursing home residents with and without cognitive impairment (CI).
Methods: A retrospective cohort study of 277 residents over 65 years. The sociodemographic characteristics, Charlson index and type of CI were collected. We compared the degree of comorbidity between residents with and without CI by applying the chi2 test using bivariate analysis.
Results: 75% (204) of the residents had CI. We did not find significant differences regarding age and sex between residents with and without CI. CI residents had a higher degree of comorbidity than those without CI (Charlson 3.1 and 2.3 respectively, $p=0.005$). The most frequent dementias were: Alzheimer's disease (44.4%), mixed dementia (19.3%) and vascular dementia (13.5%). We found differences between the residents with and without CI in the prevalence of cerebrovascular disease (CVD) (52% and 32.4% respectively, $p=0.005$), osteoarticular disease (40.2% and 54.4%, $p=0.041$) and respiratory failure (20.1% and 36.8%, $p=0.005$). The CVD was more common in the mixed and vascular dementia ($p<0.001$). We found no significant differences in the prevalence of Parkinson's disease, epilepsy, depression, heart disease, renal failure and diabetes mellitus.
Conclusions: Nursing home residents with CI have high comorbidity. CVD is more common in residents with mixed and vascular dementia. Osteoarticular disease and respiratory failure are more common in the residents without CI.

P-082

Comparison of different tools to detect frailty in nursing homes: Feasability and interrelationship with disability and multimorbidity

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Introduction: Little is known about frailty among nursing homes, and the evidence is scarce as only a limited number of studies have focused on this topic. Few articles have analyzed the relationship between the concept of different measures of frailty, disability and multimorbidity.
Methods: This is a cross-sectional analysis of basal data of a concurrent cohort study in subjects older than 65 years, residents in two nursing homes. We used 4 Frailty measures: The Fried frailty criteria, the Frailty Index (FI) de Rockwood, the FRAIL-NH, and an innovative approach trying to approach the limitations of the Fried criteria: The Imputated Fried frailty criteria, usando la técnica denominada MICE (multivariable imputation by chained equation).
Results: One hundred and ten individuals were included in the study analyzed. Mean age: 86.3 (SD 7.3), 71.8% women. Most of the residents had high rates of functional and cognitive impairment, multimorbidity and malnutrition. According to the different frailty scales, the prevalence was: Rockwood's FI: 71.8%, Frail-NH: 42.7%, Fried with MICE imputation 36.4%. There is an important heterogeneity between the interrelationship of the frailty scales and the concepts of disability and multimorability
Conclusion: There is a significant heterogeneity in the prevalence of frailty in nursing homes depending on the definition of frailty used which significantly affects the interrelationship with the concepts of disability and multi-morbidity. This work is the first to analyze four different scales and to make an innovative approach to the use of the Fried index.

P-083

Comprehensive geriatric assessment in the older cancer patient: A multidisciplinary approach to optimize management of comorbidities – a pilot study

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Introduction: Older patients with cancer have increased risk for multimorbidity, polypharmacy, inappropriate prescribing and adverse drug reaction (ADR). The objective of this study is to assess the value of a clinical pharmacist-geriatrician teamwork on medication review (MR) to optimize management of comorbidities during comprehensive geriatric assessment (CGA).
Methods: A prospective, monocentric and observational study was conducted among older patients (≥75 years old) with cancer (all types), during 11 months in a French university hospital. We integrated a pharmacist consultation into CGA process in an acute geriatric care. The pharmacist records medication story, risk of ADR with Trivalle score and identifies potentially inappropriate medication (PIM) using STOPP/START (V2) and Laroche criteria. The multidisciplinary teamwork then submits its proposals for prescription modification to general practitioners (GP).
Results: We recruited 51 consenting patients. We present their socio-demographical and medical characteristics: age, sex, lifestyle, G8 score and geriatric rating scales (cognitive, depression, nutrition, autonomy), cancer types and stages, comorbidities, number of drugs, adherence, PIM and proposals for GP. We assessed the value of MR on number of drugs, Trivalle score and PIM reduction.
Conclusion: Multidisciplinary team seems to have a positive impact on iatrogeny and prevalence of PIM and underuse. The clinical pharmacist can find his place into CGA process to optimize management of comorbidities. This pilot study will lead to a larger research project that will assess efficiency of this process, in a wider town-hospital network.

P-084

Diabetes mellitus is associated with sleep disturbance in the oldest old

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Introduction: Sleep is an essential biological process and sleep disturbance is a common health problem that has substantial consequences like cognitive impairment, low quality of life and increased mortality in older people. The prevalence of sleep problems increase with age and there are well known risk factors for sleep disorders in older adults.
Methods: The aim of this study is to investigate whether the presence of diabetes mellitus increases the sleep problems in oldest old patients. A retrospective cohort analysis was performed using health records of patients admitted to outpatient clinic of the Division of Geriatric Medicine, Department of Internal Medicine, at Hacettepe University Hospital. Demographic characteristics, comorbid conditions and presence of well known risk factors for sleep disturbance were recorded.
Results: Ninety-nine patients over 85 years of age were included in the study. Mean age was 88.45±4 and 44.4% (n=44) was female. Twenty one percent of the patients had diabetes mellitus. Percentage of the patients that declared they had sleeping problem was 35.4% (n=35). 34% of the patients experiencing sleep disturbance had diabetes mellitus while 14% of those not experiencing (p=0.02). Also nocturia was higher among patients with sleep problem (p=0.02). There was no statisticaly significant correlation between sleep disturbance and gender (p=0.8), history of dementia (p=0.8), depression (p=0.06), hypertension (p=0.2), heart failure (p=0.27), chronic obstructive pulmonary disease (p=0.8) and Parkinson disease (p=0.55). The Odds Ratio (OR) of the significant risk factors in the logistic regression were: diabetes mellitus (OR [95% CI] = 3,4 [1,2–9,7]), depression (OR [95% CI] = 3,3 [1,3–8,5]) and nocturia (OR [95% CI] = 3,4 [1,2–20,4]).
Conclusion: In addition to well known risk factors our findings highlight the importance of diabetes mellitus in the development of the sleep disturbance in the oldest old.

P-085

Evaluation of quality indicators for patients with dyslipidemia in Primary Care

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Background and aim: Study on the quality of clinical care in patients with dyslipidemia assigned to a family doctor.
Method/Design: Longitudinal evaluation: Palmer's Quality Cycle-Setting: An urban health care center. Population and Sample: Patients (total according to inclusion criteria, year 2015) with Dyslipidemia (n=406). Interventions:-Internal evaluation, dimensions: scientific-technica, quality, adequacy, accessibility, continuity of care; data related to the care process and intermediate results; explicit, evidence-based procedural criteria. Subjects: analysis of

coverage. Analysis on the evolution of treatment compliance. The Z statistical test for comparing proportions, alpha 0,05.
Results: Compliance criteria (year 2015): Results Indicators in patients with dyslipidemia associated with a Family Doctor (FD), in the Health Center (HC) and in the Health Area (HA). Patients diagnosed with dyslipidemia 14 years of age or older: FD 406 patients (30.27%), HC 3403 patients (22.39%), HA 56,355 patients (23.88%), Patients with dyslipidemia with registered cardiovascular risk: (CVR): FD 204 patients (50.25%), HC 1687 patients (49.57%), HA 25590 patients (45.43%), Patients with dyslipidemia with a registered CVR between 14 and 65 years: FD 88 (42%), HC 855 patients (45.50%), HA 13432 patients (44.52%), Patients with dyslipidemia with CVR registered over 65 years: FD 116 (56.86%), HC 832 patients (44.37,45%), HA 12168 patients (47.54%).
Conclusions: The analysis of the records of care process indicators for patients with Dyslipidemia makes us aware of the importance of patient control. Registration allows us to evidence improvements in the care process. To make a good registry of the controls, to adapt the interventions with the patient, adapting them to each case. After our analysis we say that we must improve the uptake of patients with Dyslipidemia and the quality The analysis of the records of care process indicators for patients with Dyslipidemia makes us aware of the importance of patient control. Registration allows us to evidence improvements in the care process. To make a good registry of the controls, to adapt the interventions with the patient, adapting them to each case. After our analysis we say that we must improve the uptake of patients with Dyslipidemia and the quality of the records of CVR of the care process.

P-086
Evaluation of quality indicators for patients with gender violence in Primary Care

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Background and aim: Study of the quality of the registry of screening of gender violence patients assigned to a Primary Care Physician (PCP) and to compare them with patients with gender violence at the Health Center (HC), with the Health Area (HA) and with the patients of the Autonomous Community of Castilla and León (CyL) (during the period 2015).
Method/Design: Longitudinal evaluation: Palmer's Quality Cycle-Setting: An urban health care center. Population and Sample:Female patients ≥14 years: 753 (year 2015) (n=753). Interventions: Internal evaluation, dimensions: scientific-technica, quality, adequacy, accessibility, continuity of care; data related to the care process and intermediate results; explicit, evidence-based procedural criteria. Subjects: analysis of coverage. Analysis on the evolution of treatment compliance. The Z statistical test for comparing proportions, alpha 0,05.
Results: Compliance criteria (year 2015): Population of women ≥14 years: PCP 754, HC 8.039, HA 121.649, CyL 1.088.855. Of the aforementioned, how many have been screened for gender violence in the last four years: PCP 44, HC 907, HA 23,697, CyL 152,246. Screening Rate: PCP 5.84%, HC 11.28%, HA 19.48%, CyL 13.98%.
Conclusions: The analysis of the records of the screening indicators for patients with gender violence makes us aware of the importance of patient control. Registration allows us to evidence improvements in the care process. To make a good registry of the controls, to adapt the interventions with the patient, adapting them to each case. After our analysis we say that we must improve the recruitment of patients with gender violence and the quality of the records of the care process.

P-087
Evaluation of quality indicators for patients with heart failure in Primary Care

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Background and aim: Study of the quality of the registry of screening of Heart Failure (HF) patients assigned to a Health Center (HC) and to compare them with HF patients with the Health Area (HA) and with the patients of the Autonomous Community of Castilla and León (CyL) (during the period 2015).
Method/Design: Longitudinal evaluation: Palmer's Quality Cycle-Setting: An urban health care center. Population and Sample: HF patients ≥14 years: 116 (year 2015) (n=116). Interventions: Internal evaluation, dimensions: scientific-technica, quality, adequacy, accessibility, continuity of care; data related to the care process and intermediate results; explicit, evidence-based procedural criteria. Subjects: analysis of coverage. Analysis on the evolution of treatment compliance. The Z statistical test for comparing proportions, alpha 0,05.
Results: Compliance criteria (year 2015): Population ≥14 years: HC 17,122, HA 2,482, CyL 2,398,647. Number of patients with open HF in the period: HC 116, HA 2,482, CyL 28,038. With the clinical data Fraction of Ejection (Fe) of the left ventricle (LV) recorded in Electronic Clinical History: HC 0, HA 4, CyL 48. Prevalence IC: HC 0.68%, HA 0.94%, CyL 1.17%. Percentage of patients with HF who have LV, recorded in Electronic Clinical History: HC 0%, HA 0.16%, CyL 0.17%. Patients with at least one prescription of ACE inhibitors or ARAs in the period: HC 68, HA 1.663, CyL 16,928. Percentage of patients with at least one prescription of ACE inhibitors or ARAs in the period: HC 58.62%, HA 67%, CyL 60.38%.
Conclusions: The analysis of the records of the screening indicators for patients with HF makes us aware of the importance of patient control. Registration allows us to evidence improvements in the care process. To make a good registry of the controls, to adapt the interventions with the patient, adapting them to each case. After our analysis we say that we must improve the recruitment of patients with HF and the quality of the records of the care process.

P-088
Evaluation of quality indicators of physician follow-up after hospital discharge in Primary Health Care

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Background and aim: Evaluation of the Quality Indicators of the Medical Follow-up after the discharge in Primary Health Care from patients assigned to a Primary Care Physician (PCP) and compare them with patients from the Health Center (HC), the Health Area (HA) and the Autonomous Community of Castilla y León (CyL), Spain. (During the period 2015).
Method/Design: Longitudinal evaluation: Palmer's Quality Cycle-Setting: An urban health care center.
Population and sample: Patients (total according to inclusion criteria, year 2015) Medical Follow-up after the discharge in Primary Health Care (n=119). Interventions: Internal evaluation, dimensions: scientific-technica, quality, adequacy, accessibility, continuity of care; data related to the care process and intermediate results; explicit, evidence-based procedural criteria. Subjects: analysis of coverage. Analysis on the evolution of treatment compliance. The Z statistical test for comparing proportions, alpha 0,05.
Results: Compliance criteria (year 2015): – Number of notifications of Medical Follow-up after the discharge in Primary Health Care in the period 2015: PCP 119, HC 1477, HA 26688, CyL 309573. – How

many notifications of Medical Follow-up after the discharge, do you have an accompanying hospital discharge report?: PCP 64 (53,78%), HC 803 (54,37%), HA 16426 (61,55%), CyL 222483 (71,87%). – How many notifications of Medical Follow-up after discharge have an appointment, a note on the electronic medical record, or medical follow-up after discharge within 48 hours of the discharge date?: PCP 71 (59,66%), HC 811 (54,91%), HA 17286 (64,77%), CyL 216574 (69,96%).
Conclusions: The analysis of the records of care process indicators for patients with notifications of Medical Follow-up after the discharge makes us aware of the importance of patient control. Registration allows us to evidence improvements in the care process. To make a good registry of the controls, to adapt the interventions with the patient, adapting them to each case. After our analysis we say that we must improve the uptake of patients with notifications of Medical Follow-up after the discharge and the quality of the records of the care process.

P-089
Frequency and impact of medical complications in the patients undergoing hip fracture

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Objective: To study the incident of medical complications in patients undergoing hip fracture and the impact on mortality, hospital stay, and functional deterioration.
Methods: Prospective and observational study, which includes all patients admitted for hip fracture since 1st January 2016 to 15th February 2017 in a secondary hospital in Madrid. We assessed the presence of anaemia with transfusion requirement, acute renal failure, cardiovascular complications, stroke, thromboembolic, nosocomial infection, ulcers by pressure, delirium, malnutrition, constipation with enema requirement and vitamin D deficiency. We did a descriptive analysis of the population characteristics, and a linear correlation (Pearson test) between the number of complications and hospital stay and functional impairmet (Barthel). We also did an univariate analysis between each complication and mortality (χ^2 test), and we studied the association between each complication and hospital stay, functional impairment and mortality (T for independent samples).
Results: n:163 patients. The average number of complications was 3.39 (range 1–7). The most frequent was vitamin D deficiency (64.4%), malnutrition (60.7%), anaemi (59.5%), constipation (48.5%), renal failure (30.7%), nosocomial infection (17.8%), cardiovascular complications (17.2%), ulcer (6.7%), strok (1.2%), and thromboembolis (0.6%). The number of complications was statistically significant with the stay (Pearson0.18, p=0.02) and functional decline (Pearson 0.16,p=0.04). The average of complications was significantly higher among the deceased patients against the living patient (5.5Vs3.39, p=0.045). Complications associated significantly with a higher mortality were nosocomial infection (20.7Vs1.5%, $p<0.001$), cerebrovascular (100%Vs3.7%, $p<0.001$) and ulcer (27.3Vs3.3%, p=0.01) and those related to a higher functional impairment were anaemi (loss of 21 points in BarthelVs15, p=0.025)and cardiovascular complications (25Vs17, p=0.018).
Conclusion: The coexistence of medical complications is a common problem in the patients undergoing hip fracture correlating their number with increased mortality. Some complications are associated with higher mortality and functional impairment.

P-090
Geriatrician input into the care home significantly reduces anticholinergic burden (preliminary report)

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Introduction: Many commonly used medications have mild anticholinergic effects of which practicing clinicians may not be routinely aware. The cumulative effect of multiple such medications, known as anticholinergic burden, has been associated with adverse outcomes. Interventions that reduce anticholinergic burden may therefore be beneficial. Review of care home residents' medications is an intervention used by community geriatricians. This quality improvement project aimed to evaluate the impact of a community geriatrician on care home residents by using change in anticholinergic burden as a proxy measure.
Methods: A joint review of care home residents' medication was carried out by a geriatrician in conjunction with the patient's general practitioner and care home manager. Medication pre and post review was documented. The anticholinergic cognitive burden scale was retrospectively used to quantify and compare anticholinergic burden before and after review.
Results: At the time of submission data was available from 25 residents: 76% female, mean age of 84 (8), taking a mean of 7.9 (3.8) medications at baseline. 22 (11%) out of a total of 198 medications were stopped or reduced following review. Both the median anticholinergic burden (1 (0–3) to 0 (0–1) P=0.02) and the mean number of medications (7.9 (3.8) to 7.2 (3.2) P=0.008) were significantly reduced.
Conclusions: Geriatrician input into the care home reduces anticholinergic burden and total medications. If the results were to be replicated over a larger population this could have a potentially important impact on health through a reduction in anticholinergic burden and on cost through a reduction in medication expense.

P-091
GP-led locality hub for older people living with frailty in North West Surrey

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Introduction: At North West Surrey, (NWS) we faced a number of challenges including an ageing population, people living with chronic conditions, overreliance on hospitals and disconnect between social and medicalised care. Our mission was to find a way to manage the challenges we face from a growing older population within an integrated GP-led community service and in a manner that promotes independence, reduce social isolation, improve patient experience and safely delivers appropriate acute care in the community.
Methods: The model delivers standardised, multidisciplinary care to patients focused on tasks and activities that maximise health, maintain independence and functioning, based on individual need. These interventions are delivered in a co-located setting by a single integrated team including carers and volunteers and we provide transport to enable attendance. The 1st hub in Woking was opened on 20th Dec 2015 and 2 other locality hubs are due to open towards the end of 2017.
Results: From Dec 15–Sept 16, there has been a 3.6% reduction in non-elective admissions across acute providers in NWS in the over 75s for Woking, compared with an increase in activity in the other localities. Friends & Family feedback (88 patients) showed

98.9% were likely/extremely likely to recommend service with 89% extremely likely.
Conclusions: The locality hub has had an impact on admissions. It is important that initiatives such as this, which focus on partnership working, are adopted more widely to enable older patients to be treated in the most appropriate environment for their social and medical needs.

P-092
Hypotension in nursing home residents on antihypertensive treatment: risk of mortality and hospitalization

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Objective: Prevalence of hypertensio (HT) and use of antihypertensive-medications increase by-aging. Antihypertensive-medication is a potential risk-factor for hypotension for morbidity/mortality in elders. We aimed to assess prevalence of hypotension and orthostatic hypotension (OHT) and their relationship between subsequent one-year hospitalization and mortality in nursing home (NH) residents receiving antihypertensive-medications.
Methods: A group of NH resident >60 years of age receiving antihypertensive medications accepted to involved. Blood pressures (BPs) were measured sitting and 3–5 min after standing to assess OHT. BPs were measured supine and 3–5 min after sitting to assess OHT in bedridden residents. Also BP measures recorded in the last year at NH have been studied retrospectively. Residents were evaluated for both recorded and current BPs and comprehensive geriatric assessment thoroughly.
Results: 175 were male (%66) and 89 were female (%34) from 264 subjects. Mean age was 75.7±8.7 years. Most of residents were ambulate (n=191, 72%). At one year, ratio of hospitalization from any cause was 50.8% (n=134), mortality rate was 21.6% (n=57). 88 residents had mean SBP ≤110 mmhg (34.8%). 170 residents had mean DBP≤70 mmhg (67,2%). 54 residents had OHT (21.6%). Lower SBP (≤110 mmhg) was statistically significant predictor of mortality (p=0,047) in cox regression analysis after adjusting for age, sex, number of comorbidities and medications, and MNA-sf. Mortality was significantly higher in residents with mean DBP ≤70 mmhg (p=0,031) in chi-square analysis. Hospitalization was higher in only group with DBP≤65 mmhg with borderline statistical significance (p=0,05) in regression analysis. OHT was not seen associated with mortality nor hospitalization.
Conclusion: Both supine hypotension and OHT are significantly prevalent in "hypertensive" NH residents on antihypertensive-treatment. Either lower SBP≤110 mmhg is independently associated with mortality in NH residents. Lower DBP ≤65 mmhg is also associated with increased hospitalization in NH residents.

P-093
Hypoxic-ischemic brain injury related to dual disorder

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Objective: Observational and descriptive study of the N=21 outpatients in an addiction treatment center. There are cognitive and functional impairment (clinically detected and through The Montreal Cognitive Assessment – MoCA) that hinder the therapeutic program of deshabituation.
Purpose of study: Show the reality (increasing) of outpatient addiction treatment centers and the difficulties of treatment of these patients.
Material and methods: Data are collected from N=21 patients, who are being treated at a outpatient drug addiction center (CAS). All of them have mild cognitive and functional impairments.
Results: 89% of outpatients had alterations in neuroimaging evaluation (NMR). Two of them are women. Mean age were 61 ages (44–72 years old). 61% had Dual Disorder (addiction and other mental illness). 83% had Alcohol Use Disorder. 72% had hypoxic-ischemic brain injury throughout life. MoCA were less than 24 in all of outpatients.
Conclusions: Chronic substances abuse and cognitive and functional impairments, should not be problem to the neurological assessment and rehabilitation of affected outpatients. Dysfunction of patients makes it extremely difficult to follow the specific therapies to recover from the addiction. Comprehensive cognitive/neurological rehabilitation treatments and substance use disorders would have to be started.
References:
[1] Fernández-Serrano MJ, Pérez-García M, Verdejo-García A. What are the specific vs. generalized effects of drugs of abuse on neuropsychological performance? Neurosci Biobehav Rev 2011; 35: 377–406.
[2] Verdejo-García A, Chong T-J, Stout J, Yücel M, London ED. Stages of dysfunctional decisión-making in addiction. Pharmacology, Biochemistry and Behavior. In press (2017).

P-094
Improving the management of osteoporosis in older men

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Osteoporosis in older men is common and causes significant mortality and morbidity [Walsh et al. Nature Rev Endoc 2013]. Some data suggest that osteoporosis is underidentified and undertreated in men. Additionally, 50% of the causes of osteoporosis are secondary in men [Gielen et al. Best Pract. Res Clin Endoc Metab 2011]. The 2012 Endocrine Society recommend additional laboratory investigations in men with osteoporosis so as to treat them more efficiently [Watts et al. JCEM 2012]. Our aim was to determine whether men managed in our geriatrics centre, diagnosed with osteoporosis, underwent investigations to determine the aetiology of osteoporosis and what the secondary causes were. We conducted a monocentric, retrospective study including all men seen at the geriatric consult in 2016 diagnosed with osteoporosis. For each patient, we evaluated our clinical practice, whether common secondary causes were sought-after and what these aetiologies were. Among the 121 men with a diagnosis of osteoporosis seen at the geriatric consult at the Lille University Hospital in 2016 only 55 had undergone further investigations. Among the 3 major identified secondary causes: 16% glucocorticoid induced, 12% hyperparathyroidism, 12% treatment induced hypogonadism. The investigations conducted in elderly men to seek a secondary cause to osteoporosis are insufficient. The 2012 Endocrine Society guideline and Rheumatology societies provide a framework for evaluation and treatment of osteoporosis in men. We should aim to more widely research secondary causes for osteoporosis in our patients so as to better adapt the management.

P-095
Intervention program for caregivers of multimorbid patients

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Objective: To develop a practical guide for caregivers of multimorbid patients, which should be useful, providing information that

suits the demands and needs of both the patients and caregivers themselves.
Methods: A cross-sectional descriptive study was carried out in Almería Health District to describe the home care provided by Mobile Rehabilitation and Physiotherapy Teams, the characteristics of its implementation, and its results on patients' functional independence and on their caregivers' overload.
Results: Family and caregivers receive training to promote patient's functional independence, and are also given information about the intervention on the patient and its objectives, helping them incorporate these activities into their daily routine. Additionally, they receive information on health and community resources, in order to help them look after their own physical and mental welfare. Furthermore, they are encouraged to participate in support groups for stress management, among other activities. There is supporting evidence showing how the support from family, friends and both public and private services and resources can diminish the overload experienced by caregivers.
Conclusions: Access to information and the various domiciliary resources available, both health and social, offer caregivers more possibilities to provide their dependent patients with a more adequate intervention that will have an impact on their quality of life. Caregivers themselves reach better physical and emotional welfare, so as to face the problems and difficulties of their daily lives. Research Project PI 0354/2014 issued by the Ministry of Health of the Government of Andalusia.

P-096
Invasive versus non invasive management of acute myocardial infarction in patients with dementia: Data from SveDem, the Swedish Dementia Registry

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Background: Acute myocardial infarction (AMI) is one of the leading cause of death and is particularly prevalent and deadly after 80 years of age. We aimed to study factors that determine the use of invasive procedures in the management of AMI in patients with dementia and determine whether the use of invasive procedures was associated with better survival.
Methods: The study was based on data from Swedish Dementia Registry (SveDem), 2007–2012. We included 29 630 newly diagnosed dementia patients from specialist memory units (60) and primary care units in Sweden (ca 880). During median follow-up time 228 days 525 dementia patients got AMI (mean age 89 years, 54% women).
Results: 110 patients (21%) with dementia received invasive treatment for AMI. After multivariate adjustment, lower age and higher global cognitive status were associated with the use of invasive procedures. The invasively managed patients survived longer (P=0.001). Invasive treatment was associated with a lower risk of all-cause mortality, adjusting for type of AMI and dementia disorder, age, gender, registration unit, history of AMI and comorbidity score (HR 0.35, 95% CI: 0.21–0.59), or total number of drugs (HR 0.34, 95% CI: 0.20–0.58).
Conclusions: Age and cognitive status determine the use of invasive procedures in patients with dementia. This study suggests that the invasive management of AMI has a benefit for survival of patients with dementia.

P-097
Is multimorbidity a "Domino" phenomenon? The results of the PolSenior study

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Introduction: Multimorbidity is a complex problem of the current geriatric medicine. Patients with multimorbidity require more clinical concern, use healthcare resources more often, and experience significantly worse short- and long-term outcomes. The aim of the analysis was to determine the prevalence figures and conditional counts for the most frequent chronic diseases and mutimorbidity in the Polish elderly.
Methods: Medical questionnaire, history taking and physical examination, and blood and urine collection were employed in order to gather data on 17 chronic diseases in participant of nationwide PolSenior Project. Multimorbidity was defined as a co-occurrence of 2 and more chronic diseases. All data was weighted with regard to age and sex.
Results: Multimorbidity was diagnosed more often with advanced age, in 88.4% of those 65–79, and in almost 94% of those aged 80 and older. Hypertension, metabolic diseases and obesity were the most common chronic condition, however it was changing with advanced age and in octogenarians and older hypertension, eye disorders and cognitive impairment were the most frequent medical problems. The highest risk for multimorbidity was found in the respondents aged 65–79 with stroke, and in the oldest olds who had suffered from stroke or heart failure. Hypertension was most often diagnosed as a single disease, in 4.1% of those aged 65–79 and in 2% of those aged 80 years and more.
Conclusions: We showed that in the elderly chronic diseases were usually diagnosed as multimorbidity patterns that might influence the way how we diagnosed and treat the older patients.

P-098
Life with cancer in nursing homes. Can e-health technologies improve the quality of care?

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Introduction: Korian is a private group specialized in medical accommodation for elderly and dependent people. A professional data warehouse set up in 2010 hosts all residents' data, the transmissions' table containing key information about the residents' care fed on a daily basis. As cancerous residents require multiple interventions and hospitalizations, following them in nursing homes (NH) in real time can be really challenging. The objective of this study is then to show what e-health can bring to cancerous residents' quality of care.
Methods: Through nursing care narratives extraction, using deep learning we built 26 syndromes including hospitalizations and deaths, afflicting our residents: a first layer shortened the character fields and cleaned up expressions, a second selected the syndromes, and a third involved medical expertise and logical predicates. In this study we chose to extract the life course of residents with at least one recent cancer mention syndrome, staying in two NH where a GP coordinating care was following them, from that transmission until 02/26/2017. A first classification using socio demographic variables and care information, designed as a preliminary work, gave the following results.
Results: Splitting the 57 residents between dead and alive, men and women, or by using a first cancer mention delay in days' threshold, shed light on the ever changing residents' health and socio profiles but also on the cancer treatment through time.
Conclusion: Including the residents' past syndromic transmissions information, especially cancer features, through textmining and machine learning analyses will give new insight and improve GP's treatments.

P-099
Management of chronic insomnia in elderly

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Introduction: Insomnia is the most common sleep disorder in the elderly. Its management must take into account the physiological changes related to the age, the higher frequency of co morbidities and the polymedication.
Objective: To evaluate the management of chronic insomnia in the elderly patients by general practitioners and to compare them with international recommendations.
Population and methods: We conducted a cross-sectional and descriptive study among general practitioners over a period of two months. We proposed to these doctors to participate in our study by sending to them a questionnaire in their emails, which they fill anonymously.
Results: A total of 32 doctors responded to the questionnaire. Among them, 62.5% reported that they often or very often receive elderly consulting for insomnia. Before prescribing hypnotic drugs, 65.6% of practitioners reported that they often advise lifestyle and dietary rules. The most prescribed hypnotic classes were: Benzodiazepine (BZD) and antihistamines in 59.37% of cases each one and homeopathic treatments in 56.25% of patients. The treatment period exceed 30 days in 18.75%. As for the prescription of BZD, molecules with long half-life were used in 37.48% of cases, and the posology was identical to adults in 34.4% of cases.
Conclusion: The prescription of hypnotic treatment in the elderly must be cautious, taking into account psychiatric and somatic co morbidities. Patients must be educated about environmental factors that affect sleep, such as avoiding caffeine late in the day, having a regular sleep schedule, avoiding napping and the importance of exercise.

P-100
Mortality risk factors among long-term care facility residents

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Objective: The main aim of the study was to evaluate potential mortality risk factors among long-term care residents during one year of follow-up.
Material and methods: The study was performed among 172 elderly residents of three long-term care facilities in Poland. The study population was divided into two groups: people who were alive [Group 1] and people who died [Group 2] during one year follow-up period. Medical documentation, blood pressure (BP) measurements, Body Mass Index (BMI) and selected tests including Abbreviated Mental Test Score (AMTS), physical dependence score, Mini Nutritional Assessment (MNA) and Barthel Index were performed in all study participants at the beginning of the study. Statistical analysis: Results obtained in two analyzed groups were compared using U Mann-Whitney or Chi square tests. Univariate and multivariate logistic regression models were used for investigating the risk factors for mortality.
Results: The analyzed sample consisted of 172 long-term care residents. Group 1 (N=148) and group 2 (N=24) revealed similar age, number of diagnosed diseases, number of used treatment, BMI and BP values. However, group 2 showed significantly lower score in ADL (0 [0; 2,5] vs 3 [1; 6]), Barthel Index (5 [0; 37,5] vs 40 [15; 95]), MNA (8 [6;10] vs 12 [9;13]), AMTS (4 [2;7] vs 8 [6;9]) and greater physical dependence score (4 [3;5] vs 3 [1;3]) than group 1. The statistical analysis showed that the potential risk factors that increased the mortality among residents were: diagnosed diabetes (8,1 OR [95% CI; 3,00–21,86], $p<0,001$), dementia (3,0 OR [95% CI; 1,25–7,27], p=0,014) and physical dependence (2,13 OR [95% CI: 1,47–3,07], $p<0,001$). The protection factor was diagnosis of hypertension (0,28 OR [0,10 - 0,74], p=0,010).
Conclusion: Lower functional, nutritional, cognitive status, greater dependence and diagnosis of diabetes or dementia were negatively influenced on mortality outcomes. However, occurrence of hypertension may have positive impact on probability of survival among institutionalized individuals.

P-101
Non-pulmonary symptoms and comorbidities in older people with chronic obstructive pulmonary disease

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Introduction: Chronic Obstructive Pulmonary Disease (COPD) is frequently seen in elderly, with important consequences on morbidity and mortality. We analyzed non-pulmonary symptoms and comorbidities in elderly with COPD.
Material and methods: A retrospective study performed on 120 randomly selected patients previously diagnosed with COPD, divided into 2 equal groups: adults (50–64 years), elderly ($\geq$75 years), with equal number of women and men.
Results: A lmost all subjects had no occupational risk. 2/3 of patients resided in urban area; 77.5% were current or previous smokers, mainly males (58%). 16.7% had tachycardia and 2.5% had bradycardia, more often encountered in elderly. Heart failure was more prevalent in elderly ($p<0.05$), 1 in 7 having ejection fraction $\leq$40%. Pulmonary hypertension was more prevalent in adult women chi-square test = 4.261 ($p<0.05$). C-reactive protein more prevalent in elderly ($p<0.01$). Body Mass Index higher in adults, chi-square test showed no gender difference. High prevalence of diabetes mellitus amongst elderly, no significant difference from adults. Pearson test showed no statistical correlation between COPD severity (GOLD category) and HbA1C levels. Osteoporosis more prevalent in elderly women (chi square = 10.652, $p<0.05$). Regarding neurocognitive status, only decreased orientation skills in elderly group and anxiety in women in both age-groups. Comorbidities were highly prevalent in both groups (92%), elderly having more than 3 conditions concomitantly. Most prevalent comorbidities in elderly, in order: diabetes mellitus, heart failure, hypertension.
Conclusions: Comorbidities and non-pulmonary symptoms in elderly with COPD have a significant impact on severity of disease and survival in this category of patients and need special attention.

P-102
Potentially inappropriate medications in hospitalized elderly in a tertiary hospital in Singapore using the STOPP criteria

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Background: Potentially inappropriate prescribing (PIP) in elderly is prevalent and is associated with increased risk for adverse drug events, morbidity and healthcare cost (Scott, 2015). Screening tools such as Screening Tool of Older Persons (STOPP) assist to evaluate PIP prescribing among elderly (Hill-Talyor, 2016). However, extent of inappropriate prescribing among Singapore hospitalized elderly is currently unknown.

Objectives: This study aims to investigate the prevalence of PIP in elderly patients on hospital admission and at discharge as well as to identify risk factors associated with PIP.
Methods: A retrospective cross-sectional study was conducted over a 2-month period in a cardiology ward in National University Hospital, Singapore. Patients 65-years and older who were taking at least one medication were included. STOPP Version 2 criteria was used.
Results: A total of 115 patients were included with 52.2% having more than 8 medications on admission. Admission PIP prevalence was 51.3% (59 patients, 105 PIPs) which was decreased to 47.0% (54 patients, 78 PIPs) on discharge. Admission PIM index was reduced from 0.110±0.150 to 0.0698±0.093 on discharge (p=0.007). The two leading classes of PIPs were prescription of Vitamin B supplementation without evidence-based clinical indication and medications that increase the risk of falls including first-generation antihistamine. A significant predictor of PIP on admission identified was taking more than eight prescribed medications [OR 3.79; 95% CI: (1.75, 8.21)].
Conclusion: Inappropriate prescribing was common among elderly in Singapore and hospitalization resulted in a decrease in PIPs. The number of medications prescribed was significantly associated with number of PIP.

P-103
Predictors of cardiorenal damage in the elderly

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Introduction: It is known that the incidence of heart failure increases with age, and therefore, it is now characterized as a geriatric syndrome. Renal function is valorized as a marker of early or advanced stages of heart disease and is of much greater clinical significance than the value of the ejection fraction. We are analyzing the structural and functional markers of heart and kidney damage (BNP, troponin I, cTnhsT, cystatin C), inflammation markers (CRP, IL-8, PAI-1) and oxidative stress markers (AOPP, MDA, XOD, XO, XD) and determining their importance in different clinical modalities of the cardiorenal syndrome.
Methods: The clinical group consisted of 79 patients, 40 of whom were men (50.63%) and 39 of whom were women (49.37%), in the average age of 70.72±9.26 years. Based on the current classification of cardiorenal syndrome, the patients was divided into five subgroups. The main criteria for the inclusion of subjects with associated renal and heart failure in the study were the existence of a "de novo" or previously diagnosed, clinically manifested cardiovascular disease.
Results: In the univariate logistic model, the age of the patients (p=0.002) and the elevated concentrations of CRP (p=0.001) were identified as risk factors for the development of chronic cardiorenal syndrome. The multivariate model includes variables with the statistical significance of $p<0.010$. The age of the patients (p=0.002), the concentration of PAI-1 (p=0.032) and CRP ($p<0.001$) were identified as significant risk factors.
Conclusions: The age of the respondents, as well as the high levels of CRP were identified as independent risk factors for the development of chronic forms of cardiorenal syndrome. In the multivariate model, the ages of respondents, as well as the high plasma levels of CRP and PAI-1 have retained the importance as the risk factors.

P-104
Prevalence and pattern of use of oral antihyperglycemic drugs and insulin in a population of diabetic patients in nursing homes: Results from the SHELTER Study

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Objectives: Describe prevalence and pattern of use of antidiabetic drugs in elderly people with diabetes mellitus residing in nursing homes (DMRs), and to identify individual socio-demographic and clinical features associated with these drugs. Design: Cross-sectional analysis of the Services and Health for Elderly in Long TERm care (SHELTER) database. SHELTER is a 12-month prospective cohort study, conducted between 2009 and 2011, to assess Nursing home (NH) residents in 7 European countries and Israel.
Methods: The study included 4037 residents in 59 NH during the 3-month enrollment period. The multidimensional InterRAI instrument for Long-Term Care Facilities (InterRAI-LTCF) was used to assess health and functional status. Descriptive statistics and logistic regression models were used to perform the analyses.
Results: About 61.3% of DMRs were treated with antidiabetic drugs (33% with oral antihyperglycemic drugs (OAD), 22% with insulin (Ins) and 6% with combined therapy (OAD + Ins)). Among the OAD, Biguanides were the most prescribes drugs (53%). Non treated residents were more likely to be female, older, with a higher BMI and with more severe cognitive decline. DMRs treated with Ins presented more severe functional decline. Ins+OAD was associated with lower prevalence of cognitive impairment, depression, urinary incontinence and pain.
Conclusion: Over 60% of DMRs receive pharmacological treatment with antidiabetic drugs. Advanced age is the main barrier to treatment, while severity of cognitive and functional decline may influence the prescribing choice. Further studies are needed to confirm these findings and evaluate the effectiveness of antidiabetic treatment in frail elderly population.

P-105
Prevalence of benign paroxysmal positional vertigo, orthostatic hypotension and polyneuropathy in patients referred to a geriatric falls clinic – a cross-sectional study

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Introduction: Falls and vertigo are common in older persons. One third falls at least once a year. The prevalence of vertigo is approximately 30%. Three common causes of vertigo and falling are: benign paroxysmal positional vertigo (BPPV), orthostatic hypotension (OH), and polyneuropathy (PNP). Our aim was to find the prevalence of these diseases in older patients referred to a geriatric falls clinic.
Methods: We made a cross-sectional study of all patients affiliated to a falls clinic on March 15th 2017. We calculated the prevalence of BPPV, OH and PNP by chart review. BPPV had been diagnosed by physical therapists using the Dix-Hallpike method. OH had been diagnosed using blood pressure measurements after having the patient stand up for minimum three minutes and was conducted by a geriatric nurse. PNP had been diagnosed on the basis of distal loss of sense, vibration and/or reflexes. This was performed by a geriatric doctor.
Results: The number of patients was 97. Mean age was 79.8 years (SD: 6.6), 67% were female. BPPV was found in 10% of the patients, OH in 36%. PNP had been newly diagnosed in 40%. Twenty-six percent of the patients had two diagnoses. Other common diagnoses were other vestibular disorders, polypharmacy and cardiac arrhythmias.
Conclusions: BPPV, OH and PNP are common causes of vertigo and falls in a geriatric falls clinic. BPPV, OH and PNP are potentially reversible. Further studies should be made to determine the outcome of intervention of these diseases.

P-106
Risk factors and complications of arterial hypotension in older people

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Introduction: Arterial hypotension is a major problem in elderly and has significant consequences: syncope, falls, stroke, myocardial infarction, even death. Study objective was to identify risk factors and complication of this condition in elderly.
Material and methods: A total of 277 subjects, age-range 44–95 years, were included. They were divided into two groups, both presenting arterial hypotension: 136 adults (44–64 years) 136 and 141 elderly (75–95 years).
Results: Three types of arterial hypotension have been identified in elderly: orthostatic hypotension, post-prandial, post-exercise hypotension. In our sample, most cases had orthostatic hypotension, other variants had less than 4% prevalence. Parkinson disease was more often seen in older patients ($p<0.05$). Type 2 diabetes mellitus and chronic renal disease were also more prevalent in elderly ($p<0.05$). Smoking was more prevalent in adult males. Three groups of medicines were involved: psychoactive, antiparkinsonian, vasodilator drugs. Age of menopause younger than 46 years was more prevalent in elderly women with arterial hypotension (chi square=9.762, $p<0.05$). Anemia was significantly more prevalent in elderly ($p<0.001$). Stroke and myocardial infarction was significantly more prevalent in elderly patients ($p<0.01$). Vertigo and syncope occurred as complications of arterial hypotension more often in elderly ($p<0.01$), as well as falls, fractures and ischemic heart disease. Orthostatic hypotension was identified in elderly more than twice in adults. Headache and asthenia occurred more often in elderly ($p<0.05$).
Conclusions: Identifying arterial hypotension, its forms and addressing some of its most important risk factors, could improve standing and prevent falls and other complications in elderly.

P-107
Severity of vitamin D deficiency predicts mortality in stroke patieNTS

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Introduction: Vitamin D (VD) deficiency is considered as a risk factor for death due to cardiovascular events including stroke. In the present study we assessed the hypothesis that decreased levels of 25-hydroxyvitamin D (25-OH-D) and related calcium-phosphate disturbances are associated with increased risk mortality in patients with ischemic stroke.
Methods: Serum 25-OH-D, intact parathyroid hormone (iPTH), intact fibroblast growth factor 23 (iFGF23) levels were assessed in serum samples left after routine tests in a hospital laboratory in 240 consecutive patients with acute ischemic stroke, admitted within the 24 hours after the onset of symptoms to the Stroke Unit. Mortality data were obtained from the local registry office.
Results: Only three subjects (1.3%) had optimal 25-OH-D level (30–80 ng/ml), 25 (10.4%) had mildly reduced (insufficient) level, 61 (25.4%) moderate deficiency and 151 (62.9%) a severe VD deficiency. 20% subjects had increased iPTH (>65 pg/mL). Of all patients, 79 (32.9%) died during a follow-up observation (44.9 months). The incidence rates of death (per year) were 4.81 and 1.89 in a group with and without severe VD deficiency, respectively (Incidence Rate Ratio =2.52; 95% CI: 1.44–4.68). In multivariable stepwise backward Cox proportional hazard regression age, 25-OH-D <10 ng/mL and functional status (assessed by the modified Rankin scale) were significant factors increasing the risk of death.
Conclusions: Severe VD deficiency is a strong and independent from age and functional status negative predictor for survival in stroke patients. VD supplementation in patients after stroke may be considered even without 25-OH-D assessment.

P-108
The gouty tophus

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Background and aim: The incidence and prevalence of gout has increased in recent decades, probably due to changing lifestyles and the aging of the population. The objective of this clinical case is the review of a case of patient with chronic gout and habit of alcohol abuse.
Method, results and case description: Patient of 70 years. Personal history: Arterial hypertension, Impaired glucose tolerance, Hyperuricemia, Tendinitis aquilea left, Spondyloarthrosis, Hepatic steatosis (drinker of 6 doses/day of wine), chronic gout. Surgical interventions: left hip prosthesis, right knee tibial osteotomy, right thumb fracture. In study and follow up by Gouty Tophus: – Episodes of gouty tophus for 15 years, with ankle involvement; One or two annual episodes of 8–10 days duration and recently episode in right thumb (where it has previous structural damage) swelling and drainage in the right wrist and 5th interphalangeal right hand. – Tophus in left elbow for 2 years. – Structural damage in the right hand, knees, ankles and 1th metatarsophalangeal joints (MTP joints) (hallux rigidus).
Conclusions: This type of patient needs a lot of support and a more continuous follow-up on the part of his family doctor, emphasizing the importance of the dietary advice for the alcoholic abstinence, since its consumption is a risk factor to present acute episodes of Gout more And more Frequent and severe, structurally damaging more joints. In addition, liver damage may increase and therefore difficult to treat with Allopurinol. Remember to establish allopurinol that we must make a check at 15 days and if Urico Acid >6 mg, we increase at the dose of 300 mg/day. It is important to clarify the basis of gouty tophus treatment: colchicine will be used daily and nonsteroidal anti-inflammatory drugs (NSAIDs) in inflammatory outbreaks.

P-109
The impact of hospitalization on the number of administered medications in consecutively admitted elderly patients

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Introduction: Previous studies concerning how hospitalization affects the number of medications administered to elderly patients, before hospital admission and after discharge, have yielded mixed

results. The objective of this study was to assessthe impact of hospitalization on drug prescriptions in consecutively admitted, elderly patients.

Methods: In 262 patients, mean age 80,45±7,95 M±1SD, (53,4% women) demographic characteristics, medical history, medications, Katz-index, Charlson-Comorbidity-Score (CCS) and reason of admission were recorded. The number of medications and CCS were recorded both at admission and discharge. Parametric tests were applied to identify the variables that have significant association with the reduction of medications. The paired Wilcoxon test was applied to analyze both the difference between the number of drugs and CCS at the time of admission and discharge.

Results: The mean CCS before admission and after discharge was 5,50±1.80 M±1SD and 6,00±1,92 M±1SD respectively, while thenumber of medications was 5,22±3,06 M±1SD and 5,49±2,65 M±1SD respectively. In 191 patients (72.9%) CCS remained stable while in 71 patients (27.1%) increased. The mean number of medications after discharge increased, remained stable or decreased in 106 (40.5%), 104 (39.7%) and 52 (19.8%) respectively. While after hospitalization the mean CCS increased ($Z=-2.953$, $p=0.003$)a statistically significant change in the mean number of medications was not elicited ($Z=-1.299$, $p=0.194$). The only variable linked with the reduction of medications was the unchanged CCS ($p<0.001$, $\chi^2=18.859$).

Conclusions: Hospitalization seems to contribute in medications' reduction. The effort to reduce the number of medications gets more complicated when the CCS is increased.

P-110
The usability of the Supportive and Palliative Care Indicator's tool and the surprise question in Dutch nursing homes

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Introduction: There are various tools available for indicating the need for palliative care. However these tools have not been studied for use in nursing homes. The aim of this study is to explore the usability of the Supportive & Palliative Care Indicators Tool (SPICT) and to compare the SPICT with the Surprise Question (SQ) in nursing homes.

Methods: Elderly care physicians used the SPICT and the SQ for indicating the need for palliative care in 120 patients living in Dutch nursing homes. This study features a quantitative data set with a cross-sectional design in which the inter-rater agreement of the SPICT and SQ for indicating palliative care was analysed. The usefulness of the tools perceived by the physicians was studied with a qualitative analysis based on a focus group.

Results: The SPICT indicated a need for palliative care in 71% of included nursing home patients. The SQ indicated this need in 62,5%. A moderate agreement (kappa = 0,495) of the instruments was found. The elderly care physicians regarded the SPICT unusable for indicating a need for palliative care, but deemed it helpful for the conversation concerning advanced care planning.

Conclusion: In indicating the need for palliative care, the SPICT and the SQ are moderately comparable. However, according to elderly care physicians the indicators used in the present form of the SPICT are not appropriate for use in a nursing home.

P-111
The value of "p": Novel risk factors for ischemic stroke?

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Introduction: The interatrial block (IAB) is a delay in atrial conduction defined as a wide p-wave (WpW) on electrocardiogram (ECG) but has low specificity for supraventricular tachycardia (SVA) and ischemic stroke (IS) prediction. New criteria for IAB appeared as the biphasic morphology of p wave in the inferior leads, which has increased its predictive value. The objective of this study is to find relationship between new IAB's criteria (NIAB) and IS of undetermined cause (ISUC).

Method: Retrospective study of 188 cases admitted to hospital for ISUC (A group) without prior arrhythmias, compared to 180 controls admitted for other causes (B group). NIAB finding on the ECG (biphasic $p\geq120$ms in II, III and AVF) was assessed in both groups. Data analysis was made to find NIAB differences between groups in relation to age (<75; ≥75) and comorbidities.

Results: 368 patients (47% women; mean age 72,7±15,2; Barthel index 79,5±24,9) were included. WpW and NIAB findings were significantly more prevalent in A group ($p\leq0.000$), with no other differences observed. Significant differences were found considering age: stronger association WpW-IS vs NIAB-IS in the youngest group (OR 24.1 (12.4–46.7) vs 20.5 (4.8–87.3) in contrast with a stronger association NIAB-IS vs wpw-IS in the oldest group (OR 33.8 (4.3–264.7 vs 7.4 (2.1–26.8).

Conclusions: WpW and NIAB were significantly related to ISUC. Relevant differences were found considering age, being more prevalent the presence of WpW in younger with ISUC and NIAB in elder. Although more studies are needed, these outcomes could justify primary prophylaxis with anticoagulation before SVA appears.

P-112
Twenty year blood pressure trajectories in 46,634 older patients

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Introduction: We aimed to estimate trends in blood pressure (BP) for 20 years prior to death and test associations with multimorbidity and cardiovascular diagnoses.

Methods: We used Clinical Practice Research Datalink primary and secondary care records. We estimated BP in 46,634 participants aged ≥60 who died 2010–2014 (including 10,957 aged 90+). We investigated associations of comorbidity and cardiovascular diagnoses (hypertension, heart failure, AF, and stroke or TIA) with BP trajectories. We compared BP slopes >2 years (to reduce end of life effect) to 10 years prior to death for 28,241 participants who died, with 46,856 birth-year and gender matched controls surviving >9 years.

Results: Peak systolic BPs occurred 14 years before death in ages 60–69 and 18 years in age ≥90 years. BP decline >2 to 10 years prior to death was steeper compared to matched controls surviving >9 years across age-groups with interaction terms <0.001 in all age groups: eg.60 to 69 years cases β coefficient 0.88 (0.82:0.95) controls 0.13 (0.0:0.15), 90+ years cases 1.88 (1.82:1.95) controls 0.37 (0.13:0.62).

Cardiovascular diagnoses increased the slope of SBP decline (interaction term: p-value <0.001 for all conditions). BP declines were modestly larger in higher RFI comorbidity quintiles.

Conclusions: In this first long-term individual patient analysis, we showed that BP decline is not limited to the final years of life, but for ≥14 years. Declines were widespread and not simply due to better survival in those without hypertension or multimorbidity. These findings may have implications for BP treatment monitoring in older adults.

Area: Comprehensive geriatric assessment

P-113
A prospective cohort study of 112 elderly patients with bladder cancer: predictive factors of early death after a Comprehensive Geriatric Assessment

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Objectives: The management of bladder cancer (BCa) in the elderly remains controversial. The aim of the study is to analyze predictive factors of early death in a group of patients >70y, with Bca, at 100 days after a geriatric comprehensive assessment (CGA).
Methods: 112 patients with Bca were enrolled. This is a multicentric and prospective cohort study approved by an ethics committee. A standardized CGA was done before the decision-making. Geriatric data were collected: MMSE, MNA, BMI, Grip hand grip strength, ADL, IADL, Gait speed, QLQC30, Charlson, G8 and Balducci classification. Within 100 days follow up, events (death), oncologic and geriatric data were collected.
Results: A total of 112 patients were enrolled, including 25.9% of women and a mean age of 82y [70–96]. 26.8% (n=30) of patients died within the 100-days follow up. 34.8% (n=39) of patients had metastatic cancers. The most common proposed treatments, by the surgeon or the oncologist, were surgery (radical cystectomy) (44.6%, n=50) and chemotherapy (42, n=47). In 35.7% (n=40) of cases, CGA modified the decision-making, in favor to palliative care in 57.5%. In univariate analyzes, metastatic cancers (HR=2.7 [1.3–5.5], p=0.008), cognitive impairments (MMSE<24) (HR=3.2 [1.5–7], p=0.003), confusion (HR=2.2 [1.1–4.5], p=0.032), under nutrition (MNA<17) (HR=6.9 [2.1–22], p<0.001), gait speed<0.8m/sec (HR=5.6 [2.4–12.9], p<0.001), social isolation (HR=4.5 [2.1–9.6], p<0.001), and dependence for ADL (<5.5) (HR=2.7 [1.1–6.2], p=0.023) and IAD (>0) (HR=2.7 [1.1–6.5], p=0.032) have significantly more risk of dying. Predictive factors of early death, in multivariate analyzes, were metastatic cancers (HR=3.5 [1.6–7.5], p=0.002), gait speed<0.8m/sec (HR=3.1 [1.2–7.7], p=0.015), social isolation (HR=2.6 [1.2–5.9], p=0.02) and dependence (ADL<5.5) (HR=3.3 [1.2–9.2], p=0.022).
Conclusion: This study confirms that some geriatric data could be predictive of worse outcomes. These results can help in decision-making and encourage to propose targeted geriatric interventions to improve the patient's prognosis.

P-114
Applicability of comprehensive geriatric FLS: treatments of FONDA protocol to recover the overall health status in fragility hip fracture patients

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Introduction: Many patients die and others do not recover in the follow-up after a Hip Fracture (HF). Orthogeriatric units are considered the best option of treatment. There is not an agreed protocol involving both secondary osteoporotic prophylaxis and overall health status recovery of patients. The objective was to assess the applicability of an intervention program addressed to accomplish these purposes.
Methods: HF patients admitted during one year in a university Hospital were studied. Patients who could come to the outpatient clinic were included. A protocol based on the specific needs of each patient (FONDA Protocol) was designed based on physical exercises, correction of Vitamin D, nutritional assessment and treatment, scheduled analgesic prescription and iron deficiency correction. Data were collected at admission and patients were followed-up at 3, 6 and 12 months.
Results: 134 HF patients were included. The patients with treatments prescribed by the FONDA Protocol at admission, discharge, 3, 6, and 12 months were respectively: Ca + Vitamin D: 8%, 81%, 76%, 75%, 71%; Vitamin D: 72%, 91%, 71%, 74%, 82%; Nutritional Supplements: 95%, 70%, 11%, 6%, 4%; Minor Analgesics: 99%, 99%, 50%, 46%, 39%; Opiates: 17%, 12%, 8%, 16%, 11% and Physical Exercises: 49%, 85%, 94%, 96%, 97%. Parenteral Iron was prescribed in 51% during admission. Antiosteoporotic drugs were prescribed in 84%.
Conclusions: An individualized protocol addressed to solve the overall specific needs of each HF patient besides to start secondary osteoporosis prophylaxis is viable. Needs are different in the several phases of the process.

P-115
Assessment clinic for the elderly at a university hospital in Iceland

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Introduction: The assessment clinic for the elderly was a product of a workshop at the Department of Geriatric Medicine. The idea was to create a more direct pathway from the ED to the geriatric ambulatorium for those frail older adults that needed a geriatric assessment. The aim of the assessment clinic is to reduce the number of revisits of the 75+ to the ED.
Methods: An individual got referred to the assessment clinic from the ED if he/she met one or more of the following criteria: a) a frail elderly, b) multimorbidity, c) had an internal medicine health-problem, d) repeated falls, e) musculo-skeletal problems, f) pain problems. All came to the assessment clinic inside a week after visiting the ED.
Results: In 2016 40 individuals got assessed, 28 (70%) were female and 12 (30%) male. Mean age was 84,3 years (median 85,5). 30 days before coming to the assessment clinic those 40 people had been to the ED 51 times, the majority (26) came only once. After they had been to the assessment clinic there were only 7 vistis to the ED, and of those 1 person came three times.
Conclusions: The conclusion is that the aim of the assessment clinic to reduce revisits to the ED is met. The frail elderly got assessed to a more appropriate treatment and pathway.

P-116
Assessment of vision in people presenting with falls

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Introduction: Falls are common in older people. Guidelines recommend that people who fall should undergo multifactorial assessment, including of visual impairment. Often this assessment is neglected mainly due to lack of time and a validated Tool in a clinical setting. The Royal College of Physicians (UK) have devised the 'Look out!' bedside vision check tool for falls prevention. We undertook this project to evaluate the ease of using this new tool.
Methods: We evaluated fifty inpatients presenting with falls from

hospital wards, and twenty outpatients in the falls clinic, over 2 months from March – April 2017. An assessment of vision using the vision assessment Tool was performed on each patient. Areas addressed included date of last eye test, use and indication for glasses, ophthalmological conditions and medications, visual acuity, eye movements and visual fields. Subjective data was collected from the doctors using the Tool regarding its ease and practicality.
Results: The Assessment tool, was found to be easy to use, by all the doctors who trialled it. It took between 5 and 10 minutes to complete this Tool. In about 10% of patients, the Tool could not be used due to dementia. In 3 patients eye sight was not tested recently. One patient was found to have Progressive supranuclear palsy.
Conclusions: This is an easy validated Tool, which can be applied in both outpatient and inpatient settings. Dementia is the only factor we found, which would prevent the full use of this Tool.

P-117
Attitude and practice patterns of geriatricians towards discussing sexual function with their patients. A literature study

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Introduction: Discussing patients' sexual function by physicians is fundamental for addressing treatable causes of sexual dysfunction. Aging and the associated morbidity and use of medication have a negative impact on sexual function of older persons. Physicians consider sexuality a difficult topic to discuss. A literature study was performed to explore the attitude and practice patterns of geriatricians in discussing sexual function with their patients, and which problems they might experience discussing this subject.
Method: A Pubmed, Medline and Medscape search was performed. The search terms sexual behaviour, sexuality, aged, frail elderly and communication were used. All publications were screened for relevant information in title and abstract. The full text of relevant articles was read.
Results: 437 publications were identified, after screening title and abstract, 17 articles were fully read. Only one study explored practice patterns of geriatricians, by using a limited questionnaire. None of 120 geriatricians did routinely take a sexual history, even though 96.7% believed that patients with sexual problems should be managed further. General practitioners do not routinely discuss sexual function because of the stereotype that older patients are asexual. There is a low level of awareness of later life sexuality among health care professionals. It is stated that more education to increase awareness of sexual function of older persons and to improve communication skills is needed.
Conclusion: At present there is limited information on practice patterns and attitude of geriatricians towards discussing sexuality with their patients. Such a study is planned among geriatricians in the Netherlands.

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Audit of the use of 24-72-hour ambulatory ECG's as an investigation tool for older patients presenting with a fall

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Introduction: Syncopal falls in older patients are often investigated with 24–72-hour ambulatory ECG's. However, this investigation is sometimes also requested as "routine", to investigate the cause of falls. The aim of this audit was to assess the appropriateness of ambulatory 24–72-hour ECG requests in patients aged over 65 years who presented with a fall.
Methods: 24–72-hour ambulatory ECG's requests for those aged 65 and above in one month were reviewed. 55 requests were identified as planned investigations for falls. An audit data collection tool was created and used to retrospectively review case-notes to establish if the investigative approach from NICE guidance was followed.
Results: In more than two-thirds of the requests, an alternative diagnosis was more plausible than syncope and half of the tests were not an appropriate choice of investigation. 52% of the tests were abnormal when syncope was diagnosed clinically & inpatient investigations deemed necessary. When done as outpatient after discharge, or where there was a more plausible alternative diagnosis with a normal electrocardiogram, about 85% of the tests had no abnormalities.
Conclusions: Indiscriminate use of 24–72-hour ambulatory ECG's for older patients presenting with falls, without applying clinical criteria, in the presence of other plausible mechanisms of falls, or when syncopal episodes are infrequent leads to low diagnostic yield. This delays identification of mechanism(s) of falls and adds costs due to inappropriate use of investigations. Our results suggest that clinicians should be more aware of the indications for 24–72-hour ambulatory ECG monitoring in older patients presenting with falls.

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Centers of gerontology - institute of public health and gerontology centers in Croatia

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The gerontologic-public health service provided at primary health care level by the Centers of Gerontology of the Public Health Institutes (PHI) in particular Croatian counties, City of Zagreb and Republic of Croatia is based on the established gerontologic-public health parameters of health care needs and functional ability of the elderly in institutional and non-institutional health care. The measures of gerontologic-public health care have been legally defined by the Act on Amendments of the Act on Health Care, referring to the Plan and Program of Health Care Measures on National Health Insurance for Gerontologic-Public Health Service provided by gerontologic-public health care teams. Appropriate preventive gerontologic program of primary prevention for the elderly has also been performed by Gerontology Centers in local community, providing immediate gerontologic non-institutional care for the elderly. A comprehensive approach in health care of the elderly, with family medicine playing the leading role, is ensured by due coordination at the level of primary health care for the elderly as part of the gerontologic-public health service with a catchment population of 30,000 people older than 65. Health care of the elderly cannot be performed, upgraded or evaluated for efficiency and availability unless the respective gerontologic-public health parameters on health care needs and functional ability of the elderly in institutional and non-institutional health care have been established. These very parameters make the basis of the gerontologic-public health service provided at primary health care level by the Centers of Gerontology at Institutes of Public Health in Croatian counties, City of Zagreb and Republic of Croatia. Appropriate programs of health care measures and procedures in health care of the elderly, including primary, secondary and tertiary prevention for the elderly, could only be developed based on monitoring and assessment of the health care needs of the elderly. Such an appropriate preventive gerontologic program of primary prevention for the elderly has also been implemented by Gerontology Centers in local community, by providing immediate gerontologic non-institutional care for the elderly. The aim is to enable the elderly to stay at home, with the family, as long as possible. In these efforts, coordination with primary health care (PHC) professionals, i.e. selected family physicians providing care for geriatric insurees, is necessary. Based on their recommendation

(PHC referral letter; Poster Fig. 1), geriatric insurees would be justifiably relieved of unnecessary and time-consuming waiting in lines in waiting rooms for examination at PHC offices. This is confirmed by frequent visits of elderly insurees to the selected PHC office for some social indication.

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Comprehensive geriatric assessment and intervention proposal in an outpatient hematology ward

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Introduction: 60% of patients with malignant hemopathies are older than 65 years and this proportion will continue to rise.
Methods: We evaluated thirty patients attending an outpatient hematology ward, all of them older than 75 years. After the geriatric assessment, treatment changes were proposed. Comorbidities, functional status, mental status, depression, geriatric syndromes and social situation were evaluated.
Results: Average age was 80 years old. Average functional scales results: Barthel 84, Performance Status 0.8, Short Physical Performance Battery 7,9. Mental status scales: 36% failed the Pfeiffer test (4.41 average mistakes). 76% had an altered Yesavage test. Charlson Index average result was 2,1. All patients had at least one geriatric syndrome, being 3.6 the average: 66% pain, 60% polypharmacy, 52% sensory disturbances, 42% constipation and 36% hyporexia. 93% had no social assistance. After finding these problems, different interventions were proposed by the geriatrician in 43% of them: 43% needed new painkillers, 23% needed psychotropic drugs to treat insomnia or depression, 23% needed laxatives. 51 other outpatient referrals to other specialists could have been avoided.
Conclusions: In order to properly identify modifiable frailty determinants and classify older patients with malignant hemopathies, a multidisciplinary approach and a comprehensive geriatric assessment are mandatory strategies. Old patients should benefit from a consensuated decision to adapt the curative and/or supportive approach, that should take into account the potential reversibility of frailty and geriatric syndromes. Prehabilitation and prevention strategies should be started in this vulnerable population, and potential economic benefits from a geriatric assessment should also be considered.

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Comprehensive geriatric assessment in elderly patients with severe aortic stenosis referred for transcatheter aortic valve implantation (TAVI)

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Aim: To assess patients with severe symptomatic aortic stenosis with a comprehensive geriatric assessment.
Patients and methods: Prospective and descriptive study of patients with symptomatic severe aortic stenosis referred for TAVI, were evaluated by a geriatrician from April 2016 to March 2017. Socio-demographic variables (age, sex, cohabitation), functional status [Barthel index (BI) and Lawton index (LI)], cognitive status [Mini-Mental State Examination of Folstein (MMSE)], emotional situation (GDS Yesavage), nutritional status [Mini-nutritional Assessment abbreviated (MNA)], comorbidity (Charlson index) and geriatric syndromes (immobility, pressure ulcers, dementia, delirium, depression, falls, urinary incontinence, polypharmacy, constipation, sensory impairment, malnutrition, insomnia) were registered.
Results: Forty-five patients were evaluated (62.22% women), mean aged 82.62±6.09 years. Fifteen (33.33%) lived alone and the rest with the family. Mean of the parameters evaluated: LI: 5.02±2.05; BI: 94±10.97; MMSE: 26.06±3.40; GDS Yesavage: 1.84±1.79; corrected Charlson index according to the age: 6.08±1.22. Geriatric Syndromes: 4 (8.89%) dementia, 5 (11.11%) depression, 1 (2.22%) delirium, 10 (22.22%) previous falls, 5 (11.11%) urinary incontinence, 42 (93.33%) polypharmacy, 5 (11.11%) constipation, 24 (53.33%) sensory impairment, 2 (4.44%) malnutrition and 5 (11.11%) insomnia.
Conclusions: Patients with severe symptomatic aortic stenosis evaluated by a geriatrician were old and predominantly female patients. One-third of the patients lived alone. The patients had a good functional status of basic activities of daily living, involvement of instrumental activities, good cognitive, emotional and nutritional status and a high comorbidity. Polypharmacy was the most prevalent geriatric syndrome in the sample of patients studied.

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Comprehensive geriatric assessment of elderly patients with cancer living in nursing home

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Objectives: To compare elderly population with cancer living in nursing home and those living at home, to identify frailty factors and to adapt oncological treatment.
Design, setting and participants: Monocentric, prospective, descriptive and comparative study conducted in Assistance Publique-Hôpitaux de Marseille (AP-HM) Oncogeriatric Day Hospital. About 211 elderly patients with cancer were refered by Oncology Units from September 2015 to October 2016.
Results: The mean age was 81.98±6.6 years. 57.8% patients were men and 18/211 patients (8,5%) were nursing home residents. The most common cancers in this population were prostate cancers (47/211 patients; 22.3%), lung cancers (35/211 patients; 16.6%), digestive cancers (23/211 patients; 10.9%) and breast cancers (21/211 patients; 9.9%). 57/211 patients (27%) have presented a metastatic cancer. Nursing home residents have more co-morbidities (p=0,001), cognitive disorders (p<0,001), dependency (p<0,001), nutritional disorders (p=0,026), grip strength reduction (p<0,001) and have been hospitalized at the Emergency Unit during 3 months (p=0,016) compared to those living at home.
Conclusion: Elderly patients with cancer living in nursing home have more severe geriatric syndromes and frailties than those living at home. Prevention of functional decline should be a priority for this population. The personalized care plan should be tailored to each patient, oncological treatments should not alter the quality of life and medical staff should be trained to these specific cares. Following this work, a course of personalized care for elderly cancer patients living in nursing home is now offered in Marseille's Hospitals and its name is ONCO-EHPAD.

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Determinants of quality of life in very old and frail geriatric oncology patients

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Background: Quality of life (QOL) has become a major factor when

considering treatment approach and medical care in geriatric oncology. Various QOL measures have been recognized to help treatment decisions, prognostic and survival assessment. The objective of this study is to describe determinants of QOL in very old and frail geriatric oncology patients.
Methods: Over 100 consenting subjects ≥74 years of age, with a progressive cancer (solid tumors or hemopathy, treated or not) were included from a geriatric oncology clinic in a French university hospital. Determinants of their QOL were collected by 3 open-ended questions: "What is the most important factor for you to have the best QOL?", "What could enhance your QOL?" and "What could reduce your QOL?". Socio-demographics (age, sex, lifestyle), cancer (type of cancer, metastatic or not, curative treatment or not), comorbidities, G8 score and geriatric characteristics (cognitive and sensorial functions, depression, nutrition, walking speed and perimeter, grip strength), pain, hemoglobin, creatinine clearance, autonomy for activities of daily living (ADL/IADL) were also collected.
Results: We present the main areas of importance for QOL quoted by an elderly and frail geriatric oncology population and compare the quoted determinants for QOL with areas explored by the reference questionnaire used to measure QOL in elderly cancer patients (QLQ ELD 14).
Conclusion: Determinants of QOL in elderly cancer patients are personal and multi-factorial.

P-124
Digital technologies in comprehensive geriatric assessment

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Effective introducing and spreading of diagnostic technologies in geriatrics is possible on the base of ICT devices. Aim of the research is to work out and introduce into geriatric practice the ICT based comprehensive geriatric assessment.
Material and methods: On web-site www.gerontology.by we submitted the special original program for physicians for performing comprehensive geriatric assessment which can be downloaded into ICT device and allows to estimate automatically the risks of functional decline, problematic geriatric syndromes and targets of personalized coaching in rehabilitation process. In the same time such program gives possibility to perform the eLearning of physicians on better ways of rehabilitation and care of elders on the base of syndromatic approach in geriatrics.
Results: 537 physicians experienced work with original computer program. Using ICT for comprehensive geriatric assessment reduced time of diagnostic procedure on 23,5%, increased the number of correct prognosis of geriatric syndromes on 18,5%, decreased the number of mistakes in diagnosis and rehabilitation on 10,0%. Using ICT for consultations and eLearning of physicians was most important factor of positive changes in quality of geriatric care. As a result was observed the positive changes in occurring of acute functional decline, decreasing of functional ability, quality of life was increased ($p<0,05$).
Conclusion: Introducing ICT technologies in comprehensive geriatric assessment improved quality of diagnostic process, geriatric care and health status of elderly patients.

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EASYCare Standard 2010 as an instrument for self-assessment of older people living at home

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Introduction: EASYCare Standard 2010 is a concise instrument to identify concerns in health, functional independence, and well-being of an older person. So far it has not been used for self-assessment. Our aim was to determine whether self-assessment (EC1) can give comparable results to an evaluation performed by professionals (EC2), for older people living at home.
Methods: The study included 100 older individuals (67 females), living in the community, without dementia (Abbreviated Mental Test Score [AMTS] above 6). Two assessments (self and professional) were performed, including summarising indexes: Independence score [IS], Risk of breakdown in care [RBC], Risk of falls [RF], within a period between 1 and 2 weeks. Additionally, during EC1, gold standard tests of physical and mental function (Barthel Index: 96.3±6.5, Lawton scale: 6.7±2.0, Geriatric Depression Scale: 3.0±2.7, AMTS: 10.2±1.0) were applied to test for concurrent validity.
Results: Cohen Kappa values (self-assessment versus professional) across all EASYCare domains were high (0.89–0.95). Results of all summarising indexes derived from self-assessment correlated well with gold standard tests. No differences were found in IS and RBC between EC1 and EC2 (8.6±12.0 vs. 9.0±12.7 and 1.0±1.1 vs. 1.2±1.4). Results of RF were higher in EC2 (1.0±1.1 vs. 1.1±1.4; p=0.005), due to a different response to the item "Do you feel safe outside your home?".
Conclusions: Self-assessment with EASYCare Standard 2010 in community-dwelling older people can yield valid results, thus providing an efficient system for the assessment of relatively independent individuals.

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Elderly's medication management ability: What are the predictors?

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Introduction: Medication management functional ability is defined as the cognitive and physical ability to self-administer medications and to follow the prescribed regimen, when it is the patient desire [1]. This study aims to screen the predictors of elderly's medication management ability assessed with Drug Regimen Unassisted Grading Scale (DRUGS-PT) and Self-Medication Assessment Tool (SMAT-PT) – Portuguese versions.
Methods: The study was carried out in a purposive sample of 207 Portuguese community-dwelling elders, using DRUGS-PT, SMAT-PT, Medication Regimen Complexity Index (MRCI), Measure Treatment Adherence (MTA), Mini-Mental State Examination (MMSE), Clock-Drawing Test (CDT) and Instrumental Activities of Daily Living scale (IADL). The associations were analysed with Wilcoxon-Mann-Whitney and Kruskal-Wallis. The logistic regression used Forward: LR method. Analysis was conducted using SPSS (v22).
Results: Of the 207 participants, 156 (75.4%) were women, and the mean age was 75.5, ±6.6 years. The elderly's ability to manage their medication was assessed with DRUGS-PT (80.7, ±25.7) and SMAT-PT (real regimen scales: medication recall 83.6 (±15.6) and adherence self-report 97.2 (±10.9)). It was obtained significant association with scholarity ($p\leq0.01$), MMSE ($p\leq0.03$) and CDT ($p\leq0.003$). The binary model built according to maximum score demonstrated that MMSE (p=0.002), CDT ($p<0.001$) and the number of medications ($p<0.001$) were significant on the probability of the elderly have full ability to manage their medication. The ROC presented an excellent power (89.9%).
Conclusions: The predictors of elderly's medication management ability were the cognitive measures and the medication daily consumption. This reflects the importance of early detection of the cognitive impairment and the inclusion of medication management ability assessment in clinical practice.

References:
[1] Maddigan SL, Farris KB, Keating N, Wiens CA, Johson JA. Predictors of older adults' capacity for medication management in a self-medication program: a retrospective chart review. J Ageing Health. 2033; 15(2):332–52.

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Evaluation of the impact of comprehensive geriatric assessment (CGA) in older patients with kidney cancer

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Introduction: In the future, life expectancy and incidence of cancer will increase, and also incidence of kidney cancer will increase in patients over 75 years old. The treatment of kidney cancer is surgery. We observe in this population several comorbidities which increase the risk of surgical morbidity and could lead to only best supportive care.
Objective: The aim of this work is to determine the impact of CGA in treatment decisions and also in guided geriatric interventions.
Methods: This is an observational and prospective cohort study approved by an ethics committee. A complete CGA has been done. Treatments made, final therapeutic decisions and geriatric interventions have been collected during the follow-up.
Results: The study included 58 patients, 31 men and 27 women. The mean age was 83y. 39 patients were dependent for ADL. 38 patients were Balducci 3. 25 patients were metastatic. There were 13 patients with clear renal cell carcinoma; half of patients had no histology. The most common predisposing factors were hypertension (n=39), and chronic kidney disease (n=24). 32 patients of the 58 enrolled patients were symptomatic. The geriatric interventions the most often proposed were: the nutritional management (n=48), physiotherapy (n=34) and prevention of delirium (n=23). 25 patients approved the care plan, 22 opinions are not known. 21 patients undergo the standard treatment (33%), 37 patients have a modification of the care plan (67%). CGA influence the modification of the therapeutic decision in over 43% (n=23) of cases, and for the most of them it was best supportive care, active surveillance or ablative therapies. Of 22 operated patients, there were 16 extended radical nephrectomies, 4 partial nephrectomies and 2 radical nephrectomies. 4 arterial embolization and 1 radiofrequency ablation were conducted. 4 patients received inhibitors of VEGF receptors and 2 patients received mTOR inhibitors. The 3 factors influencing the modification treatment are geriatric factors from the CGA: decline of autonomy (p=0.016), a decreased gait speed (p=0.001), and a home confinement (p=0.001).
Conclusion: There is a major selection of patients by urologists, explaining why the effect of geriatric assessment is increasingly important in the treatment of elderly patients with kidney cancer. There is still a difference between the recommended standard treatment and those applied after multidisciplinary consultation. Reasons that lead to the modification of treatment were the existence of geriatric syndromes and not the anesthetic evaluation. The French Association of Urology recommends to have an early CGA for patient over 70y.

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Feasibility and validity of the InterRAI ED Screener

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Introduction: The InterRAI ED Screener (RAI-ED) is a novel risk stratification instrument incorporating functional and social aspects intended to identify older adults at increased risk for adverse health outcomes. We assessed the feasibility of the instrument in an emergency department (ED) and its construct validity with established instruments.
Methods: Data from a convenience sample of 67+ patients at the ED were used. The items of the RAI-ED, Triage risk screening tool (TRST) and Identification of Seniors at risk (ISAR) were verbally administered. Correlation coefficients were calculated between RAI-ED with ISAR and TRST respectively. Linear regression was used to determine the scores of the RAI-ED that best corresponded to accepted cut-offs for the TRST and ISAR.
Results: Of 237 approached patients, 200 provided full consent for participation. The mean age was 78.5 years (range 67–97 years and sd 7.4) and 44% were male. Majority of the participants (85%) lived at home, 43% lived alone and 53% received home care. RAI-ED and ISAR scores could be obtained for 187 participants (93%) and TRST scores for 163 (81%). The mean scores were 3.19 (1.53), 2.22 (1.43) and 2.16 (1.36) for the RAI-ED, ISAR and TRST respectively. The correlation of RAI-ED with ISAR and TRST was 0.56 and 0.41 respectively. Scores of 3.02 and 3.01 on RAI-ED corresponded to the accepted cut-offs of 2 on the ISAR- and TRST instruments respectively.
Conclusion: These data provide initial support for the utility of the RAI-ED instrument in the ED.

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Functional and psychological impact of pain in elderly people

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Introduction: The purpose of this study was setting the relationship between pain relief and functional and psychological impact in elderly patient.
Methods: Descriptive study. Includes patients ≥75 years old with chronic pain at geriatric clinic in two separate one-month visits. January - June 2016. Variables: demographic data, comorbidity (Charlson index), functional status (Barthel index), Geriatric syndromes: falls, insomnia, cognitive impairment: Mini Mental State Examination (MMSE-30) and depression (Yesavage Test). Pain assessment: Visual analgesic scale (VAS), type, location and analgesic treatment. Follow-up (a month later): Change of analgesic step, VAS, Barthel index, depression and insomnia. Statistical analysis: SPSS version 23.0
Results: 126 patients. Age 84,3 (SD:5), female 58.7%. Functional evaluation Barthel Index 73.4 (SD 17.1). Charlson Index: 5 (SD 1.3). Insomnia 48.4%, falls 16%, no cognitive impairment 25.4%, mild cognitive impairment 60.3% and moderate 14.3%. Depression: 31.7%. Type of pain: neuropathic pain 23%, nociceptive 33.3% and mixed 43.7%, location: Lower limbs: 37.3%, dorsolumbar column 35.7%. Baseline VAS 6.7 (SD 1.4). Comparing results after pharmacological intervention about functionality (Barthel Index 80), depression (4%) and insomnia (26.2%) we got significant differences.
Conclusion: A correct evaluation of chronic pain, adjustment in treatment and subsequent medical follow-up, leads to an improvement in the pain relief and a positive impact on functional and emotional state. Every geriatric patient should receive a global evaluation of chronic pain as a large geriatric syndrome.

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Functional status and demand for hospital care services in COPD elderly survivors treated with NIV for acute respiratory failure: one-year evolution

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Introduction: Non-invasive ventilation (NIV) has been shown to reduce intubation and mortality in elderly patients with exacerbations of underlying chronic obstructive pulmonary disease (COPD) and acute hypercapnic respiratory failure (AHRF). Nevertheless, the effects of this therapeutic approach remains unclear in terms of functional status, autonomy and demand for hospital care services.
Methods: Prospective one-year study of 30 survivors of AHRF undergoing NIV at the Pneumology Department, Duchenne General Hospital, Boulogne sur Mer, France.
Results: 30 patients, mean age 83,4 years are included: average ADL (activities of daily living) score is 4,3, average IADL (instrumental activities of daily living) score is 2,3. 22 patients are autonomous. The average length of hospital stay is 11,8 days. At one year, morality is 20%. The demand for hospital care services increases after discharge: number of hospital stays, average length of stay, emergency department (ED) consultations. One year after discharge there is a loss of autonomy: average ADL score: 3,6, average IADL sore: 2,7. 8 patients have become dependent. Poor functional status, weak degree of mobility, Charlson Comorbidity Index, polypharmacy, anaemia, hypoalbuminemia, length of hospital stay and hospitalisation in the previous year were correlated with readmission and death. These findings are not statistically significant.
Conclusion: This is the first study to show impairment of functional status with a risk of loss of autonomy in elderly treated with NIV for AHRF one year after discharge. Comprehensive geriatric assessment should be applied in these patients.

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How geriatric intervention helped to save a life

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Introduction: Only recently has Geriatrics been recognized in Portugal as a competence. Slowly the medical community begins to understand its necessity.
Methods: Complex clinical case where a geriatric approach was performed as a life-saving strategy.
Results: 79 year old male patient, independent in daily activities, with past history of atrial fibrillation, on anticoagulation, was referred to a Geriatrics Consultation for repeated falls. Before the consultation, he was admitted to the emergency department for confusion and slurred speech. TC scan excluded brain hemorrhage and laboratory results showed hyponatremia and anemia. During the stay at the ward the patient developed multiple complications (immobility syndrome, urinary retentions, convulsion, nosocomial pneumonia and dysphagia). Due to the rapid and apparently irreversible functional and neurological decline a do not intubate order was declared. The patient survived and went home with a urinary catheter and a naso-gastric feeding tube. He then presented at the previously booked consultation with apathy and mutism. The comprehensive geriatric assessment revealed very severe functional dependence and malnutrition. After meticulous medication adjustment, better social support, physical rehabilitation, nutritional advisements and close follow-up in consultations, he showed significant global improvement. His more recent major concern is to get back driving.
Discussion: This case allowed to show the major benefits of a comprehensive geriatric assessment, important step in alerting the medical community to the need to include wards and geriatric consultations in Portugal.

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Impact of cognitive impairment and nutritional state on mortality and length of hospitalization in acutely ill geriatric patients

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Introduction: It is well known that cognitive impairment and malnutrition are prevalent conditions in the elderly. In a previous survey, we reported the usefulness of the Revised Simplified Short-Term Memory Recall test (STMT-R) positively correlated with MMS ($r=0.65, p<0.001$). The Short-Form Mini-Nutritional Assessment (MNA-SF) was also performed on these patients to evaluate their nutritional state. We herein aim to appraise the impact of both cognitive impairment and nutritional state on mortality and length of hospitalization in acutely ill geriatric patients.
Methods: Between December 2014 and September 2015, a total of 976 patients$\geqq$ 50yo were admitted in our hospital. STMT-R and MNA-SF were performed for non-critical patients within one week after admission. 770 subjects consented and were enrolled. 130 patients couldn't complete the STMT-R due to delirium, severe dementia, auditory disturbance, etc. ("uncomplete" group). STMT-R $\leqq$ 4 was considered as cognitive dysfunction by Kobayashi's study [1].
Results: The mean age was 78.9 and 52.5% were female. Cognitive dysfunction was found in 409 subjects. "Malnourished", "at risk of malnutrition" and "well-nourished" status were found in 398, 310 and 62 patients respectively. Statistically, a significant positive correlation was found between STMT-R and MNA-SF points ($r=0.50$, $p<0.001$). The relative risks for mortality in the "uncomplete" and "malnourished" groups were 3.25 (OR; CI95%;1.53–7.23) and 10.30 (OR; CI95%;2.09–186.6) respectively. The length of hospitalization was also significantly longer in the cognitive dysfunction, "uncomplete" and "malnourished" groups ($p<0.05$).
Conclusion: Cognitive impairment and nutritional state at admission may influence mortality rates and length of hospitalization in acutely ill geriatric patients.
References:

[1] Kobayashi N et al; Development of a simplified Short-Term Memory recall Test (STMT) and its clinical evaluation; Aging Clin Exp Res 2010, Vol. 22, No. 2 157

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Impact of organizational culture in the elderly living in long-term care by the elderly – A longitudinal study in Central Portugal (a research protocol)

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Introduction: Long-Term Care Facilities (LTCF) provide care to elderly as an alternative when living at home is no longer an option. Long-term effect of institutionalization in the elderly is not yet understood, as cultural and organizational differences even

between regions, may impact in overall outcomes. This leads to the need of development of studies that provide insight of how organizational cultures and strategies impact the elderlies' health in the long-term.
Methods: A longitudinal study, will be carried in ten LTCF in Central Portugal. Evaluation of the risk of functional decline (Identifying seniors at Risk Scale), presence of cognitive impairment (Six Item Cognitive Impairment Test), activities of daily-living (Barthel Index), fall risk (Timed Get Up and Go), fear of falling (Falls Efficacy Scale), risk of pressure ulcer (Braden Scale), incidence of pressure ulcer, geriatric depression (GDS-15), social isolation (UCLA-Loneliness Scale), and quality of life (EQ-5D), will be evaluated three and six months after the initial evaluation, and correlated with organizational aspects of the LTCF (ratio of healthcare providers/shift, presence of interventions targeting cognitive impairment and/or functional decline).
Results: The development of this study will provide insight of how organizational culture impacts elderly care, and which aspects influence positively and negatively quality of life.
Conclusions: Elderly care is a concern of today, but also an emergent need in the future. This study aims to develop knowledge of how to provide the best care. This will allow organizations to achieve higher levels of care thus improving the elderly's quality of life.

P-134
Implication of circulating immune complexes in atherosclerosis

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Introduction: The atherogenicity of immune complexes containing modified low-density lipoproteins (LDL-CIC) increases with age. LDL-CIC induce cholesterol accumulation in vascular cells that leads to foam cell formation, cellular proliferation, and extracellular matrix production, therefore can play a significant role in atherogenesis and are involved in the formation of early atherosclerotic lesion.
Methods: In the present study, we determinated oxidatively modified lipoproteins of the circulating immune complexes in two study groups of elderly patients (aged 72±4 years): a group of patients with atherosclerosis and a control group of patients selected according to the SENIEUR protocol for immunogerontological studies. The LDL content in circulating immune complexes was evaluated by measuring total cholesterol levels in polyethylene glycol (PEG 8000) precipitates (immune cholesterol).
Results: Our results showed that the circulating immune complexes containing LDL (LDL-IC) was increased in patients with atherosclerosis compared to the control group (21.34±7.94 vs. 9.41±5.36 μg cholesterol/ml serum).
Conclusions: This evidence indicates that the quantification of LDL-containing immune complexes has a predictive value superior of that of traditional risk markers that are currently in use. In conclusion, immune complexes involving low-density lipoprotein induce profound changes on cholesterol metabolism at the cellular level.

P-135
Is hip pain affects quality of life in elderly women?

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Introduction: The incidence of hip joint pathologies increases with age. However the women are more affected than men. The most important symptom of these pathologies is hip pain. The purpose of this study is to determine the effect of hip pain on quality of life in elderly women.
Method: A total of 430 volunteer women aged 65–96 years were included in the study. The severity of pain was assessed by the Visual Analogue Scale (VAS). The General Health Level CDC HRQOL-4 questionnaire was used yo evaluate health related quality of life.
Results: The average age of participants was 72.65±6.34 years. Hip pain was detected in 36.7% of the participants (VAS mean: 4.86±1.98cm). 44.4% of the participants stated that their general health status was moderate. Positive weak correlations were found between hip pain and physical health (r =0,273, p=0,001), mental health (r =0,218, p=0,006), activity limitation (r =0,246; p=0,002).
Conclusions: As a result, it has been observed that hip pain affects all parts of quality of life including physical, emotional and daily life activities in elderly women. Prevention or manage of hip pain would improves all parameters related quality of life.

P-136
Low back pain risk among older Turkish adults

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Introduction: Low back pain is well documented to be an extremely common health problem. The aim of this study was to evaluate the low back pain risk among older Turkish adults.
Methods: Five hundred fifty six elderly people (279 females; 277 males; mean age: 71.45±5.99 yr.) included the study. The pain intensity was measured using by a Visual Analog Scale (VAS). The risk of low back pain was evaluated with low back pain risk scale.
Results: The mean pain intensity was 4.43±1.98 cm. Low back pain rate was found as 60.4% among the participants. While 36% of the sample was found as they have potential risk, the 34.2% of the participants were found as risky.
Conclusions: The findings indicate that mostly older Turkish adults are at risk in terms of low back pain. That's why older adults should be evaluated about a chronic low back pain to improve their quality of life.

P-137
Multidimensional Prognostic Index (MPI) predicts re-hospitalization in frail older patients admitted to hospital: a multicentre, international, one-year follow-up study. The MPI_AGE European Project

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Background: The MPI_AGE is a European Commission co-funded project aimed to identify the most cost-effective health interventions according to the individual prognostic mortality-risk profile by using Multidimensional Prognostic Indices (MPI).
Aim: To evaluate the usefulness of the MPI in predicting one-year re-hospitalization in older patients.

Methods: Patients admitted to nine Geriatric Units across Europe and Australia underwent at hospital admission a Comprehensive Geriatric Assessment (CGA), i.e. functional (ADL, IADL), cognitive (SPMSQ), nutrition (MNA-SF), risk of pressure sores (Exton-Smith Scale), Comorbidity (CIRS), drugs and cohabitation status to calculate MPI. Patients were divided in MPI-1-low-risk, MPI-2-moderate-risk and MPI-3-high-risk of mortality. Time-to-event (Kaplan-Meier and Cox regression) and logistic analyses were performed adjusting data for age, gender, discharge and hospital center.
Results: 1,140 hospitalized patients were included (mean age 84.1±7.4 years, females=60.8%) and classified according to MPI score as MPI-1=169 patients (14.8%), MPI-2=502 patients (44.0%) and MPI-3=469 patients (41.1%). During the one-year follow-up 606/1,140 patients (53.1%) were re-hospitalized. A significant association between one-year re-hospitalization and all-cause mortality was observed (HR=1.79, 95% CI: 1.42–2.36,$p<0.001$). Multivariate logistic regression analysis confirmed that one-year re-hospitalization was significantly associated with higher MPI grade at baseline (MPI-1, Odds Ratio:1.0 reference; MPI-2, OR: 1.69 95% CI: 1.15–2.48, MPI-3, OR:1.60 95% CI: 1.07–2.38), lower age (OR=0.98, 95% CI: 0.96–0.99), male sex (OR: 1.29, 95% CI: 1.0–1.65) and the centre (OR: 0.91, 95% CI: 0.86–0.96).
Conclusion: Re-hospitalization is associated with all-cause mortality in hospitalized older patients. MPI performed at hospital admission identifies frail older patients at high risk of re-hospitalization during the one year follow-up period after hospital discharge.

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Oropharyngeal dysphagia in a geriatric outpatient unit

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Introduction: Oropharyngeal dysphagia, or inability to swallow liquids and/or solids, is one of the less well known geriatric syndromes, despite its enormous impact on functional ability, quality of life and health in affected individuals. The complications of oropharyngeal dysphagia are malnutrition, dehydration and aspiration, and can cause high morbidity and mortality. One therapeutic intervention is adaptation of the texture of the solid and the viscosity of the liquid.
Aim: The aim of this study was to determine the characteristic pattern and the prevalence in our outpatient unit.
Methods: We performed a retrospective and descriptive study of all patients with dysphagia seen in our office from December 2012 to May 2015. Underwent comprehensive geriatric assessment that evaluates age, gender, comorbidities, medication use, ability to perform basic activities of daily living (Barthel Index) and place of residence.
Results: We enrolled 276 patients, 69% women. Mean age 87.4 years and 57% were living in a nursing home. 81% had a Barthel Index <20 and only 7% a Barthel Index >60. Dementia was the most common diagnosis (70%) followed by Cerebrovascular Disease (16%) and Parkinson's Disease. The swallowing inability of liquids and or solids was the reason for consultation in 64% of patients, but in the 36% were their complications as aspiration, malnutrition and dehydration.
Conclusions: Geriatric assessment may help in dysphagia detection at outpatients units. Patients with neurodegenerative or cerebrovascular diseases and the frail elderly are the most vulnerable. Oropharyngeal dysphagia should be identified early in risk groups.

P-139
Polypharmacy based on the data of inpatient assessment for elderly cancer patients in General Hospital

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Introduction: As old aged cancer patients have been increasing, this study aims to understand the status of polypharmacy among elderly cancer patients who have been in General hospital in order to support the appropriate mediation and management for them.
Methods: This research has made retrospective survey research study for 3 months starting from January 1, 2015. The data was collected from 170 senior cancer patients over 65 years old at the cancer ward in S university General Hospital. PI (Potentially Inappropriate Medication) for elderly patient was verified by Beers criteria and risky Drug-Drug interaction medication was referred to the appropriate medication guideline for elders issued by Ministry of Food and Drug Safety.
Results: The average age of patient was 72.3 (±5.43) years old among 110 me (64.7%) and 60 wome (35.3%). 87.1% of patients had more than 1 chronic disease and they had average 1.9 (±1.4) types of chronic disease. The most of patients had colorectal cancer with 22.9%, lung cancer with 11.8% and gastric cancer with 11.2% in order. The patients were taking average 5.3 (±3.3) self-medications daily and 55.9% were taking polypharmacy with over 5 and 10.0% were overtaking polypharmacy with more than 10. It was verified by Beers criteria that 30.0% showed PI (Potentially Inappropriate Medication) in 62 cases and 21.2% showed risky Drug-Drug interaction medication in 50 cases among patients.
Conclusions: It is necessary to reduce the polypharmacy for elderly cancer patients and build pharmacovigilance system to monitor PIM and risky Drug-Drug interaction medication.

P-140
Potential impact of geriatric assessment on surgical treatment decisions in the older cancer patient

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Introduction: Older cancer patients are a heterogenous group. The Geriatric Assessment (GA) is an important risk stratification tool in oncogeriatrics. This study aims to assess the impact of GA on the decision to treat the cancer surgically, and the characteristics of patients that underwent surgery as opposed to those in whom the procedure was cancelled.
Methods: This is a retrospective analysis of a cohort of 1767 patients $\geq$75 years with diagnosis of cancer, scheduled for surgery, who presented to the Geriatrics clinic at Memorial Sloan Kettering Cancer Center between 01/2015 and 12/2016 for a pre-operative assessment. Sociodemographic characteristics and GA parameters were collected and analyzed. For continuous and categorical variables, t-test and Chi-square test were applied respectively.
Results: Of the 1767 patients (median age 80) who were evaluated with preoperative GA, 114 (6.5%) did not proceed with surgery. Significant differences between the group of patients that did not vs. the group that did proceed to surgery, include: median age (82.5, 80; $p<0.05$), KPS (70, 85; $p<0.05$), ADL (9.6, 12.3; $p<0.05$), iADL (10.4, 13.7; $p<0.05$), MiniCog (3, 4; $p<0.05$), distress thermometer (5, 4.2; $p<0.05$), social activity limitation score (9.7, 8.2; $p<0.05$). The differences were also significant in their use of assistive devices for ambulation, history of falls in the past year and their performance on Timed Up and Go Test ($p<0.05$).
Conclusions: Preoperative GA helped identify a subset of frail older cancer patients highlighting the need for this assessment. These patients were then offered alternative treatment approaches.

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Predictors of lower respiratory tract infections (LRTIs) in elderly patients requiring hospitalization

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Background: Previous studies concerning risk factors for LRTI's in the elderly have shown conflicting results. Most frequently reported risk factors include age, swallowing difficulties, comorbidities and stroke.
Objective: To assess the predictors of LRTI'sin consecutively admitted elderly patients.
Methods: In 310 patients (49,6% women), mean age 80.24 (95% CI: 79.35–81.10) demographic characteristics, medical history, medications, Katz-index (KI), Charlson-Comorbidity-Score (CCS) and reason of admission were recorded. Chi-square test was used to compare categorical data. Student's t-test and Man-Whitney U test were used to compare continuous data. Only variables being statistically significant were processed with multivariate analysis. Age was both analyzed as a categorical and continuous variable.
Results: 52 patients (16.8%) mean age 82.52 (95% CI: 80.02–85.08) suffered from LRTIs. Mean age was significantly higher (t(308)=-2.289, p=0,023) for patients with LRTIs. Mean number of diseases, number of medications and CCSwere not significantly different between patients with or without LRTIs. Patients aged above 80 years old (χ^2=5.783, p=0.016) or with lower KI (χ^2=14.355, p=0.026) were more likely to have been admitted due to LRTIs. Sex, use of PPI's or SSRI's, the presence of stroke, dementia, COPD, Parkinson disease and psychiatric disorders were not linked with LRTIs. In multivariate analysis, the only independent predictor was KI (p=0.021, OR=0.867, 95% CI: 0.769–0.979).
Conclusion: Elderly unable to function independently in the everyday living activities are more prone to experience an LRTI. Thus, it is of highly importance the education and the awareness of the caregivers to take extra precautions to prevent LRTIs.

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Prevalence and severity of vitamin B1- and -B6 deficiencies in a large cohort study in The Netherlands

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Introduction: A lthough multiple guidelines do not recommend screening for vitamin-B1 deficiency (B1D) and vitamine-B6 deficienc (B6D) in geriatric patients, it is not known how many (severe) B1D and B6D remain undiagnosed. This study aims to answer the following questions: what is the prevalence and severity of B1D and B6D in geriatric patients?
Methods: This descriptive study investigates the prevalence of B1D and B6D in a large cohort of patients referred to an inpatient or outpatient geriatric department from February 2012 to May 2016. Furthermore we made a subdivision for patients with malnutrition, alcohol use or dialysis.
Results: Data of 4378 subjects were included in analysis. Mean age was 82,2 years and 60,1% was female. B1D in the entire population was 4,1% (3,6% moderate and 0,5% severe). In clinical and ambulant patients B1D was 6,0% (5,0% moderate and 1,0% severe) and 2,6% respectively. In the malnutrition and alcohol use group B1D was 7,7% (6,2% moderate and 1,5% severe) and 3,4% respectively. B6D in the entire population was 5,0% (4,5% moderate and 0,5% severe). In clinical and ambulant patients B6D was 10,4% (9,4% moderate and 1,0% severe) and 2,4% respectively. In the malnutrition and alcohol use group B6D was 8,5% (7,8% moderate and 0,7% severe) and 3,5% respectively.
Conclusion: This large study shows that the prevalence of B1D and B6D was twice as high compared with healthy subjects. Since most patients suffer from moderate deficiency, one can defend the policy not to screen the entire geriatric population. However, we do recommend screening for patients in the clinical setting and patients who suffer from malnutrition.

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Prevalence of abuse and neglect, and associated factors in community dwelling older adults

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Objective: Elder abuse and neglect is a critical-health-care-issue that-must-be-brought-to the-attention. Each year approximately 10% of adults 65 years and older are abused, and 4% experience moderate to severe abuse.
Aim: In this study, we aimed to assess the prevalence of elder abuse and neglect, and associated factors.
Methods: Elders ≥60 years-of-age admitted to outpatient-clinic were included. Patients with acute-clinical-conditions, disable-to-cooperate, and absence-of-informed-consent were excluded. Eligible individuals had face-to-face interview by social worker in a room and alone. Components of comprehensive-geriatric-assessment, The Hwalek-Sengstock Elder Abuse Screening Test (HSEAST) scores have been recorded. Also a new-scale has been developed by-our social-worker to assess elder's self-neglect.
Results: 226 eligible individuals were included among 481 new admission.142 were femal (%63) and 84 were mal (%37). Mean age was 74±6.5 years. According to HSEAST-scores 81 (35,8%) respondents met the criteria for elder abuse/neglect risk. This ratio were higher in female-group than male-group (p=0,008;42%and25%, respectively). HSEAST-scores were positively-correlated with geriatric-depression-scale scores and EQ5D-self-report quality-of-life questionnair (p<0,0001 for both). The cut-off threshold for new self-neglect scale was 7 in ROC analysis. Scores ≤7 reflect self-neglect with a ratio of 39.8%. Self-neglect were higher in female-group than male-grou (p=0,0017; 46% and 30%, respectively). The-new-self-neglect-scale scores were negatively-correlated with HSEAST-scores, geriatric-depression-scale-scores and EQ5D-scores (p=0,11, p<0,0001, p=0,001 respectively).
Conclusion: We observed high rates of abuse/neglect. This study showed females are at more abused risk than males. Abuse and neglect are correlated with lower quality of life and depression. Also our new self-neglect scale was correlated with HSEAST scores, depression, and lower quality of life. This cross-sectional study confirms that elder abuse is a considerable public health problem warranting further longitudinal studies.

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Prevalence of fallers and of subjects at risk of falling in the most visited French climatic health resort

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Balneotherapy has proven positive effects in various musculoskeletal diseases, conditions potentially associated with an increased risk of falls. We determined the history of fall and the prevalence of risk factors of falling in 1471 subjects aged 65 or older consecutively admitted between June and August 2016 in the climatic

health resort of Balaruc-les-Bains, the most frequently visited Spa in France (over 46,000 medicalised persons welcomed per year). A fall in the previous years was observed in 33% of the curists (29% in men and 34% in women) and at least two falls in the previous fall in 20% of them (16% in men and 22% in women). A timed-up and go test over 12 seconds was observed in 34% of men and 39% of women and a one-leg stand test under 5 seconds in 42% of men and 46% of women. 16% of men and 24% of women were unable to stand in tandem position for 10 sec and 63% of men and 76% of women had a 4-m walking speed <1 m/s. The 5 sit-to-stand test was not possible in less than 12 sec in 73% of men and 76% of women and the fear of falling was not reduced during the stay. Performance in all the above functional tests was significantly lower in fallers than in non-fallers. Taken together, the above results suggest that a systematic screening of curists at risk of falling should be implemented in spas and that, in subjects screened at risk of falling, a specific program should be initiated during the stay in order to prevent falls and fractures.

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Profile of results of a comprehensive geriatric FLS in the follow-up of fragility hip fracture patients (FONDA protocol)

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Introduction: Hip Fracture (HF) patients suffer an important decrease in their function and health status. Many patients die and others do not recover after the HF. The objective was to assess the results of an intervention program in the recovery of physical function, bone health, nutrition and anemia since admission to 1-year of follow up.
Methods: HF patients admitted during one year in a university Hospital were studied. An intervention (FONDA Protocol) based on physical function (Barthel Index –BI-, Short Physical Performance Battery –SPPB- and handgrip strength), bone health (vitamin D), nutrition (serum protein, albumin levels and muscle mass index –MMI-) and anemia (hemoglobin level), was applied. In those who could come to the outpatient clinic an assessment of the efficacy of the protocol result was made. Data were collected at admission and at 3, 6 and 12 months.
Results: 134 HF patients were included. The assessment results at admission, 3, 6, and 12 months were respectively: MMI (kg/m^2): 8.6 (±2.2), 8 (±1.6), 8 (±1.7), 8 (±1.4); handgrip strength (Kg): 16.1 (±7.3), 19.3 (±6.8), 20 (±8), 21.2 (±8.2); hemoglobin (g/dL): 12.9 (±1.6), 13.3 (±1.3), 13.7 (±1.3), 13.6 (±1.4); total serum protein (g/dL): 6.8 (±0.8), 6.8 (±0.5), 6.9 (±0.5), 6.9 (±0.4); albumin (g/dL): 3.2 (±0.4), 4 (±0.4), 4.1 (±0.4), 4.1 (±0.3); vitamin D (ng/mL): 16.2 (±8), 56.4 (±37), 41.6 (±19.8), 35.4 (±14.1). The results at 3, 6, and 12 months were for BI: 87.2 (±15.4), 89.2 (±13.2), 90.1 (±17.2) and for SPPB: 6.4 (±2.8), 7.2 (±2.9), 7.75 (±2.9).
Conclusions: An individualized protocol aimed to solving the specific needs of each HF patient reach the overall health status recovery, which improvement in the functional, nutritional, vitamin D and hemoglobin status.

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Profile of re-hospitalization in Prevent Senior, a private health provider that caters exclusively geriatric patients, in 2016

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Prevent Senior Brazil

Objective: To evaluate the profile of readmissions in a particular health care provider that caters exclusively geriatric patients (Prevent Senior) in Brazil during the year 2016.
Method: We conducted a prospective study between January 01 to December 31, 2016, where evaluated all readmissions that occurred during that period.
Results: Were analyzed in 3147 (8.44%) readmissions, of a total population of 37.249 admissions. 40.0% of these re-admitted in up to seven days post discharge; 43.0% readmitted for the same reason discharge. 59% of readmissions were due to infectious aetiology, 15.4% from cardiovascular causes, 11.3% for palliative care, 7.8% for renal insufiencia and 6.5% by other causes. The overall hospital mortality was 7.50%, and the average length of stay was 4.3 days.
Conclusion: The results presented show a low rate of re-hospitalization, low death rate and low time of permanency for the population studied. The main reason for the readmission of this population were the infectious causes, with pneumonia being the most responsible. Such results show indirectly an efficient in-hospital management mechanism of the different conditions that affected the population studied.

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RCT Intervention with robust older people measuring functional competence, risk of falling and gait modification outcomes (LASTIMO)

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Introduction: Older persons may be at increased risk of falling due to functional decline and decreased muscle strength. Therefore, adequate shoes providing stability are recommended although evidence is lacking. However, such shoes may have negative impact on the feet muscles and sensitivity, and thereby, may impair movement and posture control. The aim of LASTIMO is to study whether habitual patterns of gait, and mobility will be modified by physical training under conditions that are comparable to barefoot.
Methods: RCT with robust (measured with LUCAS-Functional-Ability-Index, FI [Dapp et al. BMCGeriatrics2014]) older people (70+ years). Intervention group (IG): Comprehensive training focused on balance and coordination 2×/week over 6 months with minimalistic shoe use (similar to unshod). Control group (CG): Identical training with familiar shoes. Measurement: CGA (2h) incl. gait parameters (Gaitrite®) and functional competence (i.e. LUCAS FI, fall risk, SPPB).
Results: The randomisation (1:1) was successful: 56 persons were part of the IG and 56 part of the CG. Proportion of women was: IG 55.4%, KG 57.1%. Mean age (SD) accounted in the IG 75.6 (±3.4) and in the CG 75.6 (±4.5) years. First pre-post-analyses (LUCAS FI, SPPB, fall risk) showed no significant differences. In-depths analyses concerning foot and gait stability and variability (Gaitrite®) are currently under way.
Conclusions: Findings and effects concerning functional competence, fall risk and gait modifications will be integrated in the "Pact for Prevention Hamburg – staying healthy in old age!" which is the regional stakeholder framework according to the mandatory German prevention policy and regulations.

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Restless leg syndrome and associated factores

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Objective: Sleep disorders are prevelant but an underestimated problem in the elderly. RLS is associated cardiometabolic and norocognitive comorbidities. Especially restless leg syndrome (RLS) is common among sleep disorders. Studies regarding prevalence and associated factors of RLS and are limited. We aimed to assess RLS prevelance and its associated factors.
Methods: We included the elders 60–99 years of age admitted to Istanbul Medical School Geriatrics outpatient clinic in 2013–2016 years period. International RLS diagnosis criteria was used for RLS diagnosis and Cardiovascular Health Study group criterias were used for frailty. Activities of daily livin (ADL) and Instrumental activities of daily livin (IADL) were defined by Katz/Lawton index. Handgrip strength was measured with jamar hydrolic dynamometer. Statistical methods were chi-square analysis, independent-T-test, logistic regression model analysis.
Results: 405 were male (%32), 854 (%68) were female from 1259 subjects. Mean age was 74,65±7 years. RLS prevelance was %28,4. Mean handgriph strength measurement was 26±8.5. Mean ADL and IADL were 17.2±1,39, 20,76±4,6 respectively. Median frailty score was 1±1,192 (minimum score was=0 maximum score=5). After regression analysis, RLS was associated with IADL, frailty and lower handgriph strength ($p<0{,}001$, $p<0{,}001$, $p=0.13$ respectively). But it was not associated with ADL ($p=0{,}9$).
Conclusion: RLS is associated with geriatric syndromes as like cardiometabolic diseases. RLS is associated with frailty, lower handgriph strength, and functional dependence. Frailty should be considered in patients with RLS because of increased sensivity to every kind of systemic disease. New studies are needed to light its pathophysiological mechanism.

P-149
Screening of oropharyngeal dysphagia in a community old population suffering from dementia

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Introduction: Oropharyngeal dysphagia (OD) is a common geriatric syndrome associated with negative outcomes (malnutrition or aspiration pneumonia). In community-dwelling old populations, the 3-Oz test (3-ounce water swallow test) has been previously validated as an effective screening tool for OD. Recently, the V-VST (Volume-Viscosity Swallow Test) has been suggested as a relevant screening method. We aimed to assess in an ambulatory setting the relevance of V-VST comparing to the 3-Oz test in a population of old demented patients.
Methods: This prospective, monocentric study was conducted with a population recruited from our geriatric outpatients clinic. Patients aged 70 years or older with a diagnosis of dementia (NINCDS-ADRDA criteria) with an effective cough and attention capacities preserved for testing. Each patient was evaluated by applying consecutively the 3-Oz test and the V-VST in order to compare the prevalence of OD diagnosed by the two tests. Feasibility of V-VST was defined by measuring the mean time necessary to realize the test and the rate of patients capable of successfully completing it.
Results: 117 patients were included (77 women, mean age =84.5±5.1 years). The prevalence of OD was significantly higher ($p=0.04$) when applying the V-VST (86.6%) in comparison to the 3-Oz test (15%). The mean time necessary to apply V-VST was 8 minutes which has been successfully achieved in 96% of studied patients.
Conclusions: The V-VST is a screening test, easily applied and well tolerated in the elderly population suffering from dementia that should be preferred to the 3-Oz test in this population.

P-150
Sensitivity to change of Berg Balance Scale, Timed Up and Go test, Four Square Step Test for older adults

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Objectives: Balance is an integral component of physical function and a fundamental area of assessment and intervention in geriatric rehabilitation. Clinicians and researchers in this field regularly use standard balance measures to diagnose balance deficits, measure the risk of falls, and monitor changes in balance over time. Although several balance measures are available, there is lack of evidence regarding the most appropriate measure to assess change in older adults. The aim was to investigate the sensitivity to change of Berg Balance Scale (BBS), Timed Up and Go (TUG) Test, and Four Step Square Test (FSST) for older adults.
Methods: This cohort study is comprised of participants aged older than 50 years. The BBS, TUG test, and FSST were performed baseline and after one year. Sensitivity to change was assessed using effect size (ES) and standardized response mean (SRM).
Results: There were 94 participants in the baseline assessment. After one year, 35 of them were re-assessed. There was a significant balance deterioration assessed with all measures compared to one year ago ($p<0.01$). ES values were small for all the measures (BBS: −0.44, TUG: 0.28, and FSST: 0.26), whereas SRM values were moderate for BBS and TUG (−0.75 and 0.67, respectively). SRM value was large for FSST (1.31).
Conclusions: Although BBS, TUG, and FSST have similar responsiveness abilities, the FSST seems much better to sensitively measure balance deterioration with age in older adults. Since a notable balance deterioration was observed after one year, regular balance assessment and appropriate rehabilitation are important.

P-151
Social deprivation and primary care access among elderly patients – A cohort study on patients hospitalized in a geriatric unit

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Context: There are little publications on primary care access for the poor elderly population, although they are among the frailest.
Objectives: To assess a potential association between poverty among the elderly and their access to primary care in France.
Design: Cohort study, based on a self-assessment questionnaire completed by 80 patients hospitalized in two geriatric units of the Charles-Foix Hospital, between March and September 2016. The data collected included the deprivation score EPICES, frailty indicators (Charlson, Rockwood and FiND scores), as well as the number of times they consulted their primary care physician the year before their hospitalization.
Results: In this population, most patients were women (n=49, 61%), with a mean age of 85 years. They were frail, with a median Rockwood score of 5/7 and also highly comorbid, with a mean Charlson

index of 6.8. Most (n=61, 76%) were considered deprived according to the EPICES score. Mean number of primary care consultations was 7 per year. By assessing a distribution by quintiles, the EPICES score was significantly associated with the number of consultations by a complex relationship, in which the lowest and the highest quintiles had a greater number of primary care consultations per year ($p<0.05$).
Conclusion: Primary care access seems to be associated in a non linear link with social deprivation among the elderly in France. More studies are needed to assess whether the EPICES score could be a good instrument to detect social frailty among geriatric patients.

P-152
Socio-demographical and medical characteristics associated with quality of life in very old and frail geriatric oncology patients

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Background: Quality of life (QOL) has become a major factor when considering treatment approach and medical care in geriatric oncology. QOL measures have been recognized to help treatment decisions, prognostic and survival assessment. The objective of this study is to describe the level of QOL in very old and frail geriatric oncology patients and factors associated with a low QOL level.
Methods: Over 100 consenting subjects ≥74 years of age, with a progressive cancer (solid tumors or hemopathy, treated or not) were included from a geriatric oncology clinic in a French university hospital. The validated QOL questionnaire EORTC QLQ-C30 (version 3.0) was administrated to patients. Socio-demographics (age, sex, lifestyle), cancer (type of cancer, metastatic or not, curative treatment or not), comorbidities, G8 score and geriatric characteristics (cognitive and sensorial functions, depression, nutrition, walking speed and perimeter, grip strength), pain, hemoglobin, creatinine clearance, autonomy for activities of daily living (ADL/IADL) were also collected.
Results: We present socio-demographical and medical data associated with QOL level in a frail and elderly population (mean age 84, OMS performance status >2: 43%).
Conclusion: Geriatric assessment is important to optimize QOL evaluation in geriatric oncology.

P-153
Telemedicine as a successful tool for improving territorial care to elderly people

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Background: Telemedicine offers a number of services addressed to chronic diseases able to improve the quality of care by applying technology to clinical practice. Elderly people need a highly personalized diagnostic approach aimed to the improvement in the quality of life and the delay in disease progression.
Aim: The aim of the present work was to compare a sample of 11 patients who underwent telemonitoring of health conditions (group A) with a sample of 11 patients (group B) following the routine geriatric check-up.
Methods: People were from Catanzaro Lido or Chiaravalle Districts, age 65 year old or older; they had to be affected with hypertension, diabetes, respiratory insufficiency/COPD. Telemedicine tools included Phebo platform, with a software able to receive signals from peripheral devices in real time. Devices were directly provided to patients. All of them were linked to a smartphone with evodroid system, able to communicate to the central platform through the internet. Patients were administered a questionnaire for assessing the compliance in the two groups: 1) self monitoring of parameters, adherence to 2) pharmacological prescriptions and 3) to diet, 4) adherence to parameter monitoring and self-care and 5) the perception of patient's care.
Results: Telemonitored patients globally presented a better adherence to monitor the examined parameters (blood pressure, oxygen saturation, glycemia and body weight). The adherence to drug treatment was higher in group A (82% vs 73%). Unlike group B, patients of group A declared they never changed drug regimen autonomously. The adherence to diet was overall low in both groups. The level of perceived quality of assistance was high in both groups (55% in group A vs 45% in group B).
Conclusions: Telemonitored patients presented a high compliance to clinical monitoring and drug treatment and low adherence to diet regimens. Clinical monitoring was much higher compared with non-telemonitored patients. In conclusion, compliance improved as much as perceived care got better and the tools provided by telemedicine offered a valid help for improving parameters monitoring.

P-154
The European study of older subjects with atrial fibrillation (EUROSAF). Aim and study design

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Introduction: The EURopean Study of Older Subjects with Atrial Fibrillatio (EUROSAF), NCT 02973984, is a cross-national, prospective, observational study performed in subjects aged ≥65 years with Atrial Fibrillatio (AF) admitted to European Centers with the aim to evaluate in a "real word" population of multimorbid frail older patients with AF the clinical benefit/risk ratio of the anticoagulant treatment according to the different individual risk profile, as determined by the Multidimensional Prognostic Inde (MPI).
Methods: All patients at baseline underwent a standardized Comprehensive Geriatric Assesment (CGA), i.e. information on functional (ADL, IADL), cognitive (SPMSQ), nutrition (MNA-SF), risk of pressure core (Exton-Smith Scale), comorbidity (CIRS), polypharmacy and co-habitation status in order to calculate the MPI. in order to calculate the MPI. Patients were divided in three MPI-risk groups: MPI-1-low-risk, MPI-2-moderate-risk, MPI-3-severe-risk of mortality. Systemic thromboembolic risk (according to CHA2DS2-VASC score), and bleeding risk (according to HAS-BLED score) were also calculated. During the 12 months follow-up period, information will be collected on survival/mortality, hospital re-admissions, thromboembolic events, haemorrhagic events and compliance to oral anticoagulant treatments.
Results: The recruitment period started on November 2016 in three centers. 156 elderly patients were included (updated 30th april 2017), i.e. 80 males and 76 females, mean age 84.6±5.9 years, range 66–96 years. 36 patients were included in MPI-1 group, 72 to MPI-2 and 48 to MPI-3 group.
Conclusion: EUROSAF study is a multicenter cross-national prospective study to evaluate the clinical benefit/risk ratio of anticoagulant treatment in frail older subjects with multimorbidity and polypharmacy.

P-155
The experience of formal caregivers in a Portuguese nursing home care: a case report

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Introduction: The need for assistance with personal care or house-

hold activities is a hallmark of aging. With the increasing of disability comes the need for more assistance and more formal caregiving services.
Methods: This study aims to verify the type of care provided by formal caregivers of institutionalized elderly, know the difficulties experienced by formal caregivers and find out what their sources of satisfaction. We conducted a qualitative study with transversal approach, whose data collection instrument was the interview, conducted on a sample of seven formal caregivers of a Nursing Home Care in Viseu (Portugal).
Results: The results show that the sample is female, aged from 32 to 53 years, most of which has the basic education, with a professional exercise time between 8 and 16 years, corresponding to the time in the profession in the current institution they work. There are cases of lack of training on caring for the elderly, and those that have been in institutional contexts (care for the elderly, health, geriatrics and first aid), expressing the desire to invest more in their education (geriatrics, long-term care, palliative care and elderly psychology). The type of care/activities that caregivers provide were hygiene, food, positioning, live with the elderly, leisure activities, ensure their welfare and home cleaning. The activities that give more pleasure to the caregivers perform were living with the elderly and throw to them. In contrast, the activities in which they feel the most difficult positions are deal with the elderly patient and control the dementia crisis.
Conclusions: Formal caregivers contribute to many activities. The difficulties experienced are varied (efforts, initial insecurity in relation to the elderly, more autonomous elderly, food, unable to control the old crises, hygiene and degradation of the elderly). Most caregivers think that their prospect of future change. The most complicated moment with that interviewed faced was the death of the elderly. Mostly, the interviewees reveal professional satisfaction and personal benefits, which is very positive experience in terms of personal growth.

P-156
The language validation study of the Sarc-F Turkish version

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Objective: The SARC-F scale is a recently developed practical tool to screen for sarcopenia and the score ≥4 is defined as positive. We aimed to perform its Turkish language validation.
Methods: This study is a part of SARC-F Validation Study of sarcopenia special interest group of EUGMS. Firstly a bilingual expert translated SARC-F in Turkish and the other 2 bilingual expert and a forward translator reviewed the translation and decided on the final draft version. After the consensus, a bilingual translator performed the back-translation. The expert panel reviewed the all versions and reached a consensus in the translations. Turkish translated version was applied as pretest to 10 participants. It was validated with the same 20 participants (10 men and 10 women) in order to assess inter-intra rater reliability.
Results: There was no problem in the translation and pretest process. There were 5 men and 5 women (mean age of 71.5±10.4 years) in the pretest step. Inter-intra rater reliability participants' mean age was 71.4±8.1 years. Inter-rater reliability was performed with an ICC of 0.78 CI 95% (0,60–0,89). Result was considered to show adequate internal consistency. The intra rater reliability was performed with an ICC of 0.78, 95% CI: (0.61–0.90) two weeks later and this was also satisfactory.
Conclusions: Turkish version of SARC-F proved to be easy to complete, valid, reliable, and reproducible sarcopenia questionnaire. This standard form can be used in clinical practice and research studies.

P-157
The Older Person's Assessment and Liason (OPAL) team in Emergency Department: impact of embedding specialty staff in ED

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Background: Elderly patients attending the emergency department (ED) have a high rate of hospital admission. The Older Persons Assessment and Liaison (OPAL) team aim to address the difficulties encountered with the management of frailty syndromes and provide safe alternatives to admission. It currently operates a five-day week multidisciplinary service within the ED, led by consultant geriatricians. This permits timely and comprehensive review of individuals who can be better managed in the community.
Method: A questionnaire comprising 11 questions was given to staff members in ED to assess the effectiveness of, and satisfaction with, the OPAL team. There were 25 respondents who were asked to provide their role but were otherwise anonymous. Questions assessed qualities ascertaining to leadership: approachability, communication, time to response, effectiveness in facilitating discharge, education, influence on practice.
Results: The OPAL team in ED are felt to increase thresholds for admission and facilitate safe discharge. Their accessibility, availability and approachability are valued as is their role as advisors and team players. OPAL referral criteria are generally well understood and the wider influence on the practice of other clinicians is appreciated, with reported increased confidence and awareness of managing frail elderly in ED.
Conclusions:
- Specialist teams embedded in ED facilitates better patient care and augments knowledge in non-specialists.
- OPAL team in the ED inspires others and influences positive change.
- OPAL team in ED ensures fast and effective assessment of the frail elderly patient.
- Integral to facilitating safe discharge of frail elderly with establishment of support in the community.

P-158
Use of physical restraints in italian hospitals and nursing homes: Data from the 2015 "Delirium Day" initiative

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Introduction: Physical restraints, originally intended to prevent

falls and injuries, did not show any advantage in terms of fall prevention. Despite their potential of causing delirium and agitation, restraints are largely used.
Methods: Data from the 2015 "Delirium Day" initiative, a point prevalence observational study that accounted for 3534 patients enrolled in a single day. Subjects with complete data included 1867 who were admitted to acute care or rehabilitation wards, and 1439 who were nursing home (NH) residents. Patients of both settings were also divided according to the use of restraints: no restraints, bedrails, restraints attached to the body.
Results: NH patients were older than those in acute wards (84.4 vs. 82.0 years, $p<0.001$). In the latter group, patients who used bedrails or restraints were older than those without restraints (84.6, 86.0, and 80.4 years respectively). Patients in acute wards were more comorbid, more malnourished, and less functionally dependent than NH patients, but the latter were more affected by dementia, took more drugs, and experienced more delirium according to the Delirium-o-meter scale (maximum prevalence among the restraints users in both settings). Multivariate logistic regressions showed that age, female gender, number of drugs, low BADL score, bladder catheterization and dementia were independently associated with the use of bedrails. Only low BADL, dementia, and delirium were independently associated with the use of restraints attached to the body.
Conclusions: The use of bedrails and of restraints attached to the body are associated with different risk factors, thus they should be considered as different strategies.

P-159
Usefulness of the multidimensional prognostic index (MPI) to identify older patients who will return home after discharge from a post-acute care unit

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Introduction: The ultimate goal of post-acute care units is to enable patients to return home once their independence has improved. This study aimed to evaluate the usefulness of the Multidimensional Prognostic Index (MPI), a Comprehensive Geriatric Assessment (CGA)-based prognostic tool, in identifying patients able to return home after hospitalization.
Methods: On admission and on discharge, 325 consecutive older patients admitted to our post-acute care unit (males 150, females 175, mean age 82.0±7.1 years) underwent a standardized CGA to calculate their MPI by means of Activities of Daily Living-ADL, Barthel-Index, Instrumental ADL, Short Portable Mental Status Questionnaire, Mini Nutritional Assessment, Exton-Smith Scale, Comorbidity Illness Rating Scale, drug use and co-habitation status.
Results: Nineteen patients (5.8%) died; 165 (50.8%) returned home; 130 (40.0%) were admitted to nursing homes; 11 (3.4%) required re-admission to acute-care wards due to relapsing diseases. The MPI of subjects who returned home was significantly lower than that of all other patients, both on admission (0.70 vs 0.78, $p<0.001$) and on discharge (0.59 vs 0.70, $p<0.001$). The most significant predictors of returning home were MPI on admission (binary logistic regression: OR 0.017, CI95% 0.001–0.225; p=0.002) and Barthel-Index on discharge (OR 1.019; CI95% 1.009–1.028; $p<0.001$).
Conclusions: In post-acute care geriatric facilities, MPI can help clinicians to identify frail patients able to return home after discharge; improving MPI values can indicate improved functional status and increase the probability of returning home.

Area: Delirium

P-160
Anticholinergic burden and delirium in unplanned admissions with Parkinson's disease: Prevalence, associations and outcomes

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Introduction: Patients with idiopathic Parkinson's disease (iPD) are often exposed to a variety of drugs with anticholinergic effects. These agents may cause a variety of unwanted antimuscarinic side-effects which can exacerbate non-motor symptoms, including effects on cognition. Delirium is associated with poor prognosis and may be more prevalent in PD patients. This study aimed to examine the influence anticholinergic drugs may have on unplanned iPD admissions and delirium.
Methods: A retrospective case note review of unplanned admissions in patients with iPD to the medical unit of a University teaching hospital was undertaken. An anticholinergic burden (ACB) score was calculated for each admission and the relationships between ACB score and delirium, with various clinical and non-clinical parameters, were investigated and adjusted for comorbidities.
Results: 89 patients (52 male, mean age 76.8 years) accounted for 133 admissions. A positive ACB score was identified in 70.7% of admissions with an overall average of 2.008. The ACB score was found to be significantly decreased in patients with dementia (p=0.009) but not associated with delirium alone (p=0.198) or adverse outcomes requiring further care (p=0.533). Investigation of delirium alone demonstrated significant associations with dementia (p=0.019), adverse outcomes (p=0.005), infectious pathology (p=0.011) and increased length of stay (p=0.030).
Conclusions: Although adverse cognitive effects of anticholinergic medications are well-recognised, there was no correlation with delirium in this cognitively vulnerable group. This absence of association in Parkinson's disease patients seems counterintuitive, and the reasons for this warrant further investigation.

P-161
Assessment of risk of delirium in geriatric patients using the Neecham Confusion Scale

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Objectives: Delirium frequently occurs among elderly hospitalized patients. Currently more than 40 delirium screening instruments exist. Confusion Assessment Method (CAM) is the most commonly used. However, CAM does not predict whether patients are at risk of developing delirium during hospital stay or assess the severity of the condition. The Neecham Confusion Scale (NEECHAM) is developed for that purpose. Our aim was to validate NEECHAM (translated from Swedish) in Danish patients in a geriatric ward.
Methods: A pilot study included 60 patients (aged $\geq$75 years), acutely admitted to a geriatric ward at Aarhus University Hospital from 15 September to 14 October 2016 for both medical and surgical reasons. Delirium was assessed morning and evening using CAM, which is part of the usual procedure. NEECHAM was measured within 24 hours after admission to the ward. Tests for concurrent and predictive validity were used to compare NEECHAM with CAM as the golden standard. The total score ranges from 0 (confusion) to 30 (normal function). A value of 25 or more was considered to be normal.
Results: The mean age of the patients was 86 years (± 5.5). Sixty-six percent were women. The incidence of delirium was 16.7%. The sensitivity of NEECHAM was 50% and the specificity was 35.2%. The

positive and the negative predictive values were 7.89% and 86.4%, respectively.
Conclusion: NEECHAM does not seem to be suitable for predicting delirium in older geriatric patients acutely admitted to hospital due to the low positive predictive value.

P-162
Delirium as a predictor of mortality and institutionalization in nonagenarian patients admitted to an intermediate care unit

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Aim: To assess whether delirium in nonagenarian patients is a predictor of mortality and institutionalization at discharge of an intermediate care unit.
Patients and method: Prospective study of nonagenarian patients admitted to an intermediate care unit. Demographic variables (age, sex) and main medical diagnoses (fracture-injury, neurological, cardiopulmonary, vascular and others) were recorded. The presence of delirium was evaluated during admission using the Confusion Assessment Method (CAM). Patients who died during admission and were discharged to nursing home were registered. The patients who came from a nursing home prior to admission, died and were transferred to the acute care hospital were excluded
Results: Two hundred and twelve patients (75.90% female) were recorded. Ninety (42.45%) had delirium, 18 (8.50%) died and 54 (32.53%) were institutionalized at discharge. The main medical diagnoses were: 124 (58.50%) fracture-injury; 30 (14.15%) neurological; 20 (9.43%) cardiopulmonary, 7 (3.30%) vascular and 31 (14.62%) others. Of the 18 patients who died, 12 (66.67%) had delirium and 6 (33.33%) had not. Of the remaining 194, 78 (40.21%) had delirium and 116 (59.79%) had not (p=0.030). Of the 54 patients who were institutionalized, 30 (55.56%) had delirium and 24 (44.44%) had not. Of the remaining 112, 34 (30.36%) had delirium and 78 (69.64%) had not, (p=0.002).
Conclusions: The prevalence of delirium in nonagenarian patients hospitalized in an intermediate care unit was high. The delirium could be a predictive factor of mortality and institutionalization at discharge in nonagenarian patients admitted to an intermediate care unit.

P-163
Delirium in a geriatric population suffering from dementia: Complication or picture at the onset?

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Delirium is a serious syndrome related to an increase of the lenght of hospitalization, the risk of instituzionalization, the morbility and the mortality. Delirium can be found in any medical condition and is common in hospitalised elderly patients in his hyperactive, hypoactive and mixed form. This syndrome occurs in 20% of subjects affected by dementia.
Study design: The aim of the current experimental study is to determine factors associated with the incidence of delirium in a hospitalized geriatric population with dementia.
Materials and methods: Over the course of 15 months, 167 patients aged 65 years and older, with cognitive decline, were enrolled in the Alzheimer Unit of the S. Margherita Hospital of Pavia. The patients came from the home or from acute wards. The diagnosis of delirium has been provided by applying the criteria of the DSM-V supported by the use of CAM.
Results: Delirium had been recorded in 10,18% of the patients, in almost all cases in its hypoactive form. On admission it was strongly associated with several conditions: cognitive decline, vascular dementia and Alzheimer disease, adverse drugs effects, severe cardiovascular and pulmonary diseases, neuropsychiatric disorders, hospitalization, urinary/kidney tract infection, liver disease, alcohol withdrawal, neoplasms. The data obtained from this work are in agreement with the international literature on the acute mental confusion. We can identify three potential pathophysiological mechanisms underlying the clinical condition: a state of systemic inflammation, poor nutritional/metabolic conditions, a state of dehydration.
Conclusion: Our results confirm the presence of an association between delirium and advanced age, reduced autonomy and multicomorability. Our study also confirms the association between delirium and systemic inflammatory markers, malnutrition and dehydration.

P-164
Delirium in elderly patients with hip fracture

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Introduction: One of the most common postoperative complications after hip fracture repair is delirium. The aim of the present study was to evaluate the occurrence of delirium in patients admitted to hospital for femur fracture and to identify individuals at high risk of delirium.
Methods: We enrolled 534 patients with hip fracture, aged 75 years or older in an Orthogeriatric Unit between December 2013 and November 2014. Underwent comprehensive geriatric assessment that evaluates comorbidities, medication use, ability to perform basic activities of daily living, place of residence, anesthesia risk as measured by the ASA score, type of fracture, type of surgery and anesthesia, in-hospital mortality, and healthcare variables (pre-operative and overall stay). Delirium was evaluated by the Confusion Assessment Method (CAM).
Results: Among the 534 participants, 499 (93%) underwent surgery. The mean age 86.1±7.3 years (75–105 years) and 75.4% were women. Only 132 (25%) had a previous diagnosis of dementia. Forty-three patients (36,7%) developed delirium. The incidence of delirium was lower in the group without dementia (26%) than in the group with probable dementia (56%) and with Mild Cognitive Impairment (49%), ($p<0.001$). In comparison to patients without delirium, those who developed delirium were not significantly older, more limited in outdoor mobility and basic activities of daily living ($p>0.5$). Patients who developed delirium presented a longer length of stay (median 13.09 versus 11.30; $p<0.001$).
Conclusions: Clinicians treating people with a hip fracture should be vigilant towards peri-operative delirium if their patients have pre-existing cognitive impairment.

P-165
Delirium in hospitalized older patients – An educational project to raise awareness and minimize risks

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Introduction: Delirium affects more than 50% of hospitalized older persons and is often followed by serious and even life threatening complications. Furthermore delirium is associated with a high burden not only for the patient but also for caregivers. Still delirium in clinical practice often remains unrecognized.

Methods: We established a hospital-wide case-based interprofessional training programm on delirium including preventive, screening and non-pharmacological treatment methods. The programm was built up on a structured management pathway. Incidence and duration of delirium as well as rate of diagnosed delirium accoring to DRG-system were assessed before and after the intervention. Care giver burden before and after the intervention was assessed by semistructured interviews. The program also included information of relatives, the results so far are not completely assessed.
Results: After implementation of the training programm a significant increase in the diagnosis of delirium was mentioned and duration of delirium was shortened, whereas no changes were recorded regarding the incidence of delirium. In semi-structured interviews care-giver knowledge on key aspects in the management of delirium was associated with diminished burden.
Conclusions: Structured, case based training programs can be implemented in a broad setting and have a positive effect on awareness and duration of delirium.

P-166
Delirium recognition in clinical practice according to severity and motor subtype: Data from the "Delirium Day 2016" national survey

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Introduction: Delirium is often not recognized and recorded in clinical practice. The present large multicenter study aimed (1) to assess the ability of nurses to identify delirium features in comparison with a standardized clinical assessment; (2) to identify the effect of delirium severity and motor subtype on delirium recognition.
Methods: 2877 Italian inpatients aged 65+ were included in "Delirium Day 2016", a national delirium point prevalence study. The nurse on duty was asked to report the presence of three delirium features (acute change, fluctuations and impaired arousal) for each subject, who was formally assessed using 4AT afterwards, with scores >4 indicating delirium. Delirium severity was defined according to 4AT score (4–7 mild; 8+ severe) and motor subtype according to Delirium Motor Subtype Scale-4. Vital status one month after the assessment was recorded.
Results: Prevalence of delirium was 22% (n=634). Nurse identification of at least one delirium feature had an 86% [83, 89] sensitivity and an 81% [79, 82] specificity for delirium diagnosis. Sensitivity was 80% for mild cases and 93% for severe ones. Sensitivity was lowest for delirium without motor features (59%) and highest for mixed (hypo/hyperkinetic) one (97%). Delirium defined either with 4-AT or according to nurse observation showed a similarly increased mortality risk, with severe cases being associated with greater mortality (13%) compared with mild ones (5%).
Conclusions: Systematic record of nurse observation in routine practice might be an efficient method to detect delirium, especially of severe cases with a greater impact on survival.

P-167
Developing family-centered delirium care: A participatory action research study

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Introduction: Delirium is probably the most common symptom of disease at old age. Healthcare professionals (HCPs) at acute geriatric wards are well-trained in delirium management. Yet delirium often leaves a significant impression on family caregivers, who are pivotal partners during and after admission. Although HCPs are aware of this impact, family's concerns are often overlooked. This study aimed at supporting HCPs in developing family-centered delirium care (FCdC).
Methods: The study was conducted at the delirium room, a four-bed unit at the acute geriatric ward of Ghent University Hospital with round-the-clock nursing care for agitated geriatric patients. A working group of HCPs developed a tailored FCdC trajectory based on participatory action research (PAR). Two 0.5 FTE researchers enabled co-creation between HCPs, patients and family and monitored the action cycles.
Results: First, shadowing and benchmarking of FCdC occurred. In a second phase the working group was composed and started to develop FCdC goals. Based on discussing care situations it was decided to develop and unroll a new welcome policy for family. An action plan was made up and tested. Finally, the project was evaluated by interviewing all stakeholders.
Conclusion: Delirium in acute geriatric wards asks for a multifactorial, interdisciplinary, and individualized care approach: all aspects in which HCPs are well trained. Yet delirium also asks for a FCdC approach, an aspect that often challenges HCPs. PAR, a relatively new approach, allowed to develop a tailored FCdC approach. It offers a flexible trajectory that uses local knowledge and takes into account possible hindrances.

P-168
Development and validation of the delirium risk assessment score (DRAS)

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Objectives: Development and validation of a simple clinical prediction rule for identifying patients at risk for delirium during their hospitalstay. Using evidence based predisposing risk factors for delirium and easily assessed at hospital admission without the additional testing or labresults.
Design: A prediction model was developed in a mixed patient cohort (N=842). Al risk factors were weighed to establish their relation with delirium. Validated in 2 orthopedic patientcohorts (N=408, N=365) and in N=365 cohort the DRAS was compared calculating AUC, sensitivity and specificity with 3 other prediction rules: the Inouye, Kalisvaart and Dutch VMS rules which require a more extensive data collection.
Results: Nine risk factors were analyzed, 8 were significantly predictive and after −2log likelihood calculation for weighing the factors, the final DRAS is obtained by given 3 points to acute admission, alcoholabuse>4 units/day, cognition problems, 2 point to ADL problems, 1 point to age (>75), hearing/vision problems, polyphar-

macy (>5), previous delirium. Comorbidities>2 was excluded. The delirium incidence 31.8%, the AUC 0.76 (95% CI: 0.72–0.79), sensitivity 0.77, specificity 0.60. At >5 points the delirium risk is considered positive. DRAS AUC in the validation studies was 0.75 (95 %CI: 0.96–0.81), and 0.76 (95% CI: 0.70–0.83), Kalisvaart AUC 0.74 (95% CI: 0.67–0.81), Inouye AUC 0.70 (95% CI: 0.62–0.78) and VMS AUC 0.70 (95% CI: 0.62–0.77). DRAS sensitivity ranges from 0.65 to 0.77, specificity 0.60 to 0.72.
Conclusion: The DRAS is an easily established delirium risk score based on the admission interview using predisposing delirium risk factors. The simplicity of the DRAS means that the data collection required is feasible in busy wards without the extra testing or labvalues. The DRAS performs well in comparison to more elaborate scores.

P-169
Drug prescription and delirium in older persons. Results from the Italian Delirium Day 2016

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Objective: The aim of this study was to evaluate the association between number of prescribed drug categories and delirium in older persons.
Methods: Data were collected during the "Delirium Day", a point prevalence study including 4810 patients (65+ year-old) across acute and long-term wards in Italy. Delirium was assessed on the same day according to 4AT Score. Prescriptions were classified by main drug categories. Analyses were carried out in patients admitted to acute clinical and surgical units (n=2517).
Results: 573 out of 2517 participants had delirium (22.8%). The mean number of drug categories after the exclusion of psychotropics, i.e. neuroleptics, trazodone and benzodiazepines, was similar in patients with or without delirium (5.2 vs. 5.1, p=0.330). When we analysed separately patients admitted to clinical (n=2261) and surgical units (n=256), we found that patients admitted to surgical units and diagnosed with delirium were prescribed with a higher number of drugs than those without delirium (6.5 vs. 4.7, p<0.001). This association was still significant after adjustment for age, sex, education, dementia and the Charlson Index (OR=1.3;95% CI: 1.1–1.5). No prescription of psychotropic medications was inversely correlated with delirium in the whole sample (adjusted OR=0.54;95% CI: 0.43–0.68) and in the two hospital settings.
Conclusions: The association between number of drugs and delirium varies by hospital setting being significant only in surgical units and rising the issue of medication reconciliation in those units. The inverse association between no prescription of psychotropics and delirium could be a proxy of the absence or a lower severity of mental diseases.

P-170
Factors associated with delirium superimposed on dementia: The results of the "Italian Delirium Day 2016" study

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Objective: Few studies have investigated delirium superimposed on dementia (DSD) showing an association with mortality and functional declined. However, no studies have studied factors specifically associated with DSD. To fill the current gap we have designed the current investigation to evaluate factors associated with DSD in patients admitted to acute hospital and rehabilitation settings.
Methods: This was part of the "2016 Delirium Day", an Italian multicenter study to evaluate the delirium point prevalence among a large number of older patients (65 years and older) admitted to acute medical and surgical hospital wards and long-term care facilities. Dementia was defined through clinical records. Delirium was determined with the 4-AT. A multivariable logistic regression was used to determine factors associated with DSD, defined a priori.
Results: A total of 908 patients with dementia were included and 424 (47%) had delirium. The mean age was 85±6 years. A total of 577 (64%) were evaluated in acute hospitals and 331 (36%) in rehabilitations. Factors associated with DSD were severe malnutrition (Odds Ratio: 2.1, 95% Confidence Intervals: 1.27–3.16), prescription of antibiotics (OR 1.6, 95% CI: 1.16–2.26), typical and atypical neuroleptics (OR 1.71, CI: 1.16–2.5; OR 1.6, CI: 1.6–2.3), presence of intravenous lines (OR 1.56, CI: 1.14, 2.14), urinary catheter (OR 1.8, CI: 1.31–2.58), and wrist bends (OR 13.5, CI: 1.7–104).
Conclusions: The current study reports specific factors associated with DSD in patients admitted to acute hospital and rehabilitation setting, suggesting possible areas of interventions to reduce the burden of DSD related outcomes.

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How to fight the delirium of ages: A position paper from an Italian interdisciplinary experience

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Over the age of 80 years, more than one third of those in hospital will experience Delirium. Despite its high prevalence, delirium often goes undetected and undetected delirium is associated with the highest mortality. Delirium prevalence is not bound by specialty and crosses over to both hospital and community settings. Given its ubiquity and its heterogeneous presentation, delirium diagnosis and management is the responsibility of all clinicians. To help address the need of develop a cultural movement that stressed early identification and the immediate removal of predisposing factors that can made an old patient more susceptible to delirium, in February 2017 an interdisciplinary group of clinicians and researcher belonging to fifteen Italian Scientific Societies (geriatricians, emergency physicians, internal physicians, anesthesiologists, surgeons, psychiatrists and toxicologists) shared ideas on advancing the best care practices in this field. After a review of international guidelines a writing group composed a draft and turned around by email, than after picking up suggestions and modifications the final document was produced. In summary, the document focused on the need of diagnosing delirium and the opportunity of a comprensive patient-care program that prevents delirium. A little attention was given to pharmacological therapy, last beach only when the patient is in danger. To make the document as widely know as possible, it will be published in the Official Journal of the Societies in the coming months. We believe that only by involving all team members within the hospital we can fight that so common syndrome.

P-172
Impaired cognition is highly prevalent and independently associated with adverse outcomes in older patients presenting to the emergency department; the APOP study

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Introduction: We investigated whether impaired cognition is associated with adverse outcomes in older emergency department (ED) patients, because this association could have large implications for ED management and follow-up after disposition.
Methods: A prospective multi-center cohort study was performed in all acutely presenting older patients visiting the ED (APOP study). Demographic data, disease severity and geriatric characteristics were collected during the first hour of the ED visit. Cognition was measured using the 6 Item Cognitive Impairment Test (6CIT). Cognitive impairment was defined as a 6CIT $\geq$11, self-reported dementia or the inability to perform the cognition test. Adverse outcome after three and twelve months was defined as a 1 point decrease in Katz-ADL, new institutionalization or mortality. Multivariable regression analysis was used to assess whether impaired cognition independently associates with adverse outcome.
Results: Of the 2131 included patients 588 (27.6%) had cognitive impairment. A total of 375 (24.5%) patients with normal cognition suffered from adverse outcomes after three months, compared to 280 (47.8%) patients with impaired cognition. The association remained after correction for baseline functional status, disease severity and comorbidities (OR 1.71, 95% CI: 1.36–2.15). After twelve months 332 (27.9%) patients with normal cognition suffered from adverse outcome, compared to 240 (54.5%) patients with impaired cognition (adjusted OR 1.89, 95% CI: 1.46–2.46).
Conclusions: Cognitive impairment is highly prevalent in older ED patients and is associated with adverse outcome after three and twelve months, independent of baseline functional status, disease severity and comorbidities. This emphasizes the importance for ED physicians to assess cognition and possibly intervene.

P-173
Improving behaviour documentation in the acute hospital setting

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Introduction: Behaviour charts are used in hospitals to assist clinical staff in providing best care for dementia patients with challenging behaviour (BPSD), and also to assist discharge planning. Staff are poorly compliant with current charts resulting in sub-optimal care with increased falls risk, discharge delays and readmissions. A new behaviour chart was thus needed to address these issues and aid staff compliance in chart completion.
Methods: Our population consisted of patients over 65 admitted to an acute medical ward with BPSD. No staff had specialist training for dementia care. A new chart was introduced which consisted primarily of tick boxes. Using questionnaires, we gathered subjective data about staff perceptions towards the old compared to the new charts, namely ease of completion and clinical relevance. We also compared objective data regarding chart completion, length of patient stay and patient fall frequency on both charts.
Results: Our preliminary results showed that accurate behaviour documentation increased from 38.0% to 73.3% ($p<0.05$) following new chart implementation. Useful differentiation between aggressive and calm behaviours were identified in 90% of new charts compared with 12.5% of the old ($p<0.05$), and identification of BPSD-triggers doubled. Additionally, staff satisfaction with the new charts increased from 17.54% to 100% ($p<0.05$). A preliminary correlation was noted between new chart use and reduced length of stay, although further results are awaited.
Conclusion: The new behaviour chart was well received by staff, which has improved engagement and positive outcomes for patients.

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Multifactorial pathogenesis and multicomponents treatment of delirium: A case report in Geriatric Intensive Care Unit (ICU)

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Background: In elderly, delirium is associated with increase of

mortality, extension of hospitalization, loss of functional autonomy. It's indicated to adopt preventive measures, identify the causes, consider the psychoactive therapy in case of persistent agitated behavior.

Case: Man, 77 years old, affected by hypertension, diabetes, chronic kidney failure, who was hospitalized in Geriatric ICU because of myocardial infarction undergoing PTCA and stenting. The hospitalization was complicated by haemopericardium, anemia, acute exacerbation of chronic kidney failure undergoing CVVHDF, nosocomial pneumonia treated with fluoroquinoloni. Fourty-eight hours from hospitalization, developed hyperkinetic delirium with persecutory ravings. In his medical history it's not present cognitive impairment; at the admission in the hospital, it was suspended triazolam, taken to sleep.

Results: The patient, initially sedated under continuous infusion with midazolam, in order to safety make CVVHDF, even if he was moved in an ordinary medical division, delirium has not been solved. He has been moved again in ICU where, once deep sedation i.v. has been carried on, he has started treatment with antibiotic, has been hydrated and feed with N.G. tube.

Conclusion: As well as myocardial infarction, infective state, renal failure, other reasons are the recovery in ICU, the suspension of chronic therapy with benzodiazepine and the choose of fluoroquinoli. The administration of antipsychotic and the transfer in ordinary medical division were not been sufficient. The solution is obtained through intensive therapy, via deep sedation that makes possible therapies of vital support, nutrition and hydration, to follow second line of antibiotic therapy and to treat a possible abstinence from benzodiazepine.

P-175
Precipitating factors for delirium in community-dwelling elderly individuals: a prospective case series

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Factors associated with delirium among community-dwelling old patients have not been extensively studied. Our aim was to investigate them. Consecutive patients admitted from home to three geriatric acute care units with a confirmed initial diagnosis of delirium were included. An independent investigator recorded using a predefined form any acute organic medical condition considered to be a precipitating factor, at the first patient assessment and at the end of his stay in acute care unit. The main objective was to describe the frequency of predisposing and precipitating factors for delirium in these patients. A secondary objective was to know if all precipitating factors were correctly recognized at patients' first assessment at hospital. A total of 208 patients were included, of whom 74.0% had a pre-existing cognitive disorder and 24.0% a history of neurological disease. The most frequent precipitating factors found were: 1) infections (49.0% of all patients), especially respiratory (22.1%) and urinary tract infections (15.4%); 2) dehydration and electrolytic disturbances (45.7%); and 3) drugs (30.8%). Acute neurological conditions were found only in 38 patients (18.3%). Fewer precipitating factors were found at first than at final assessment (1.4 per patient ±0.9 versus 1.9±1.02 respectively, $p<0.001$). This difference was significant for all categories of precipitating factors. Infections, hydro-electrolytic disorders and drugs seem to be the most frequent precipitating factors for delirium in community-dwelling elderly individuals. In all categories, a significant number of precipitating factors are missed at the first evaluation of patients.

P-176
Prevalence and outcomes of delirium in older persons: The results of the "Italian Delirium Day 2016" study

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Objective: To evaluate the prevalence of delirium and the 1-month mortality associated with in older hospitalized persons.

Methods: The "2016 Delirium Day" is an Italian multicenter study to evaluate the delirium point prevalence among older patients (65+ yo) admitted to acute medical and surgical hospital wards and long-term cares facilities. Delirium was assessed on an index day (Sept 27th, 2016) according to 4AT score. One-month mortality was evaluated at follow-up. Analyses for the present study were carried out only in patients with 1-month follow-up after admission to acute clinical and surgical units (n=2480), post-acute care (n=540) and hospice (n=47).

Results: Overall, 527 (21.3%) in acute hospitals had delirium, while 74 (13.7%) in post-acute care and 20 (42.6%) in hospices. Among hospital wards, delirium prevalence was 25.7% in Geriatrics, 9.3% in Cardiology, 8.0% in General Surgery, 18.0% in in-hospital rehabilitation, 13.3% in Infectious diseases, 19.1% in Internal Medicine, 5.9% in Neurosurgery, 26.9% in Neurology and 15.9% in Orthopedics. At 1-month follow-up, the rate of mortality was 10.0% in patients with delirium vs 3.3% in those without. In a multivariate analysis, adjusted for age, education, setting, Charlson Comorbidity index, dementia and Activities of Daily L score, delirium was independently associated with the 1-month mortality (Odds Ratio: 1.81, 95% Confidence Intervals: 1.18–2.77, p-value =0.006).

Conclusions: The data confirm the findings of the "2015 Delirium Day" edition, i.e., that >1/5 patients had delirium in acute hospitals and also suggest that delirium is an independent predictor of short-term mortality in older hospitalized patients.

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Private rooms and prevention of delirium

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Introduction: In October 2016 the Geriatric Ward at Hospital Lillebælt Kolding moved into new buildings. The old ward consisted of three four-bed rooms and three two-bed rooms, to a summary of 18 beds. The new ward consists of fourteen one-bed rooms and one two-bed room, to a summary of 16 beds. In the old ward constant interruptions were a part of day and night, and many patients had trouble sleeping. In the new ward there is a much calmer environment due to the private rooms and therefore we suspect that fewer patients develop delirium.

Methods: To investigate the suspected decrease in delirium we

assessed the use of haloperidol, as it is our first choice drug in the treatment of delirium. We assessed the daily dosages (DDD) of haloperidol per admitted patient in November 2015–March 2016 in the old ward and in November 2016–March 2017 in the new ward.
Results: The average use of haloperidol was 0.111 DDD per admitted patient in the old ward and 0.056 DDD per admitted patient in the new ward.
Conclusions: The use of haloperidol has decreased by 50% after moving into the new ward. We have had the same staff, the same assessment methods for delirium, and our clinical guideline hasn't changed between the two periods. The only difference is the structure of the ward. It is well known that facilitating a calm environment and securing sleep are major factors in preventing delirium. This study supports that knowledge.

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Renal function is predictive of delirium in the orthogeriatric setting: the role of cystatin C

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Background: The occurrence of delirium is common in older hospitalized patients, particularly after surgery. There are no studies reffering to the association between delirium and renal function in the orthogeriatric-setting. Aim: To evaluate the predictive value of renal function in determining the risk of delirium in the orthogeriatric-setting.
Methods: Patients aged ≥65 consecutively referred to the orthogeriatric department for traumatic bone fractures were enrolled. Six equations were used to estimate glomerular filtration rate (eGFR) based on serum creatinine and/or cystatinC values obtained within 24hours of admission: Modification of Diet in Renal Disease (MDRD), Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equations based on creatinine (CKD-EPIcr) and/or cystatin C (CKD-EPIcys, CKD-EPIcr-cys) and Berlin Initiative Study equations (BIS1 and 2). During hospitalization, delirium was assessed using the Cognitive Assessment Method algorithm. The predictive value of renal function was tested on the basis of creatinine and cystatinC levels and creatinine- and cystatinC-based eGFRs.
Results: 571 patients were enrolled (76.7% female; mean age 82.7±8.2 years). 73% of patients had serum creatinine≤1mg/dL. 192 patients (33.6%) had delirium: they had higher cystatinC levels ($p<0.001$) and a lower eGFR, regardless of the equation used. At multivariate analysis, a low CKD-EPIcys eGFR was predictive of delirium (OR 0.957; CI 0.918–0.998 p=0.042), with a 4% increased risk for each mL/min of decreasing eGFR. Equations using creatinine or creatinine-cystatinC together did not predict the development of delirium.
Conclusions: CKD-EPIcys eGFR is a predictor of delirium in orthogeriatric patients with sarcopenia and low creatinine levels. CystatinC-based eGFR may help improving patient management during hospitalization.

P-179
Suspicious minds

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Case report: A 91 year old lady presented to hospital with poor mobility, with concern from her residential home that she was engaging less with staff and fellow residents. On initial assessment she appeared very suspicious and had particularly negative thoughts towards the staff at her residence. She hadn't been eating, believing that she was being poisoned and even felt that her family were conspiring against her. Examination revealed mild dysarthria and unsteady gait. Routine blood tests were unremarkable and CT brain revealed an old right occipital infarct and small vessel disease. After taking a careful collateral history it appeared that her suspicious thoughts began following an episode diagnosed as a TIA four months prior to her presentation. This behaviour persisted across a number of different environments and was having a hugely negative impact on her life and family relationships. She was reviewed by the psychiatrist and was given the diagnosis of organic psychosis secondary to TIA. She was started on low dose antipsychotics and made a dramatic improvement within a week.
Conclusion: This case demonstrates that TIA and stroke may result in atypical neuropsychiatric presentations, which are likely to present to psychiatry. This emphasises the importance of thorough investigation and highlights the valuable role antipsychotics can play in the elderly despite the risks attached to such therapies.

Area: Ethics and end of life care

P-180
Allow natural death: Do words matter

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Introduction: There has been numerous anecdotal reports from doctors at East Sussex Healthcare Trust about the difficulties in discussing resuscitation with patients. The wording of Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) is negative and detrimental to these discussions. The Gold Standard Framework and GMC recognise an alternative wording: Allow Natural Death. Our project looks to change the wording to Allow Natural Death (Do Not Attempt Cardiopulmonary Resuscitation).
Method: An online survey was emailed to all doctors at ESHT over a four week period. We received 132 responses from FY1 to consultant.
Results: There were many reasons why doctors felt patients disagreed with DNACPR decisions. 43% felt the wording of DNACPR forms contributed. Other factors included: poor understanding of CPR prognosis (82%), poor understanding of their prognosis (67%) and family member influence (55%). On a scale of 0 (very negative) - 5 (very positive) the wording of DNACPR scored 2.55 compared to 3.74 for AND (48% improvement). 66% felt substitution of DNACPR with AND (DNACPR) would help counteract poor patient response. Perceived barriers to this change included: difficulty changing established protocol (34%) and confusion for medical staff (44%).
Conclusion: Numerous factors contribute to patient resistance to resuscitation decisions and the wording of DNACPR forms was one these. Doctors felt that re-wording these forms to AND (DNACPR) would help discussions. In the coming months there will be educational events promoting this form in conjunction with good discussion technique. The proposal will be submitted to the resuscitation and end of life committees.

P-181
Association between education and status of receiving care among community dwelling older adults in Iceland

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Background: Older adults in Iceland have a good access to the health care and social services that support elderly to maintain independent living. Receiving informal care is common among older adults living in Iceland. The aim of this study is to analyze whether education is associated with the use of formal and informal care among older adults in Iceland.
Methods: The survey of Icelandic older people was conducted in 2008. The study population was a national sample of 721 persons aged 65 years and older living in Iceland. Older adults living in nursing homes were excluded from the survey. A telephone survey included questions on socioeconomic status (education and occupation), social network, health status, activities of daily living, and the status of received help either from the community elderly care system and/or from close family members and friends.
Results: Among the total sample, 372 (52%) people reported to receive either type of care. Among those who received care, 197 (53%) people reported receiving informal care only. The status of receiving informal care had shown that people with higher education had a significantly lower risk to receive informal care compared with people with lower education (odds ratio (OR) 0.67, 95% CI, 0.47–0.97, p=0.031), however formal care was not significantly associated with education level.
Conclusions: Informal care which is provided from the social network and family members are an important source for the elderly care system in Iceland. The contribution of informal care/help should be recognized when preparing the care of older people.

P-182
Caregiver burden in older patients with cancer or dementia

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Introduction: The caregiver burden must be taken into account in chronic disease such as dementia or cancer in older patients. Level of the caregiver burden and factors associated with this burden are little known.
Objectives: To assess caregiver burden measured with Zarit Burden Interview (ZBI) in older patients with cancer or dementia, and to identify clinical factors associated with this burden.
Methods: This was an observational, cross sectional study of ambulatory individuals aged 70 and older. Patients were referred to geriatric clinic in French teaching hospital between 01/11/2013 and 01/06/2016. 52 cancer patients (group 1) were age- and gender-matched with 100 patients with dementia (group 2). We used linear regression and multi-level model to assess factors associated with ZBI increase.
Results: 152 patients with a median age (81.9 years group 1/82.2 years group 2) presented similar sociodemographic characteristics. The median ZBI score was lower in group 1 (14 IQR [7–25]) than in group 2 (26 [16–43]), ($p<0.00001$)). Factors independently associated with caregiver burden were the degree of illness – metastatic disease in group 1 (p=0.06 and Mini Mental State Examination <10 in group 2 (p=0.006), and functional impairment (Activities of Daily Living score<6- p=0.06 for group 1 and 0.04 for group 2).
Conclusion: Although the caregiver burden is higher in patients with dementia than in cancer patients, associated factors are similar in both groups. The follow-up of caregiver burden and its predictive factors is required to identify most vulnerable caregivers who are most likely to need specific support.

P-183
Clinical audit: quality of end-of-life care in Long term care facilities in Western France in 2015

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101 long-term care (LTC) facilities are spread over Western France out of 572 in all country. In 2006, French Court of Audit considers that information systems do not give any information on the end-of-life in LTC facilities. This tranversal study is evaluating the quality of palliative care in LTC facilities between October 2015, the 15th and November 2015, the 15th in Western France. The outcome measure used was the Family Perception of Care Scale, translated in French. 70 LTC facilities were contacted. 12 participated. 37 deceased patients were identified. Over 20 family answers, 17 filled the questionnary. Families' satisfaction total mean (± SD) was very high 145 (±25.1) as well as the sub-scales means (±SD): 63 (± 13.4) for residents care, 33.6 (± 6) for family support, 36.8 (± 5.8) for communication, and 11.6 (± 2.3) for rooming. The 3 priority items for providing quality end-of-life care were "My family member's pain was eased by to the greatest extent possible", "The staff were sensitive to the needs of my family member", and "The staff informed me when they thought that death was at hand". Those results are opposite to difficulties reported by half of the LTC practitioners, especially about lack of time, lack of human and financial ressources and trainings. Ceiling effect and polarized answers seem to limit the data analysis. Other larger quantitative and qualitative studies appear to be led as end-of-life care in LTC departments belong to usual practice and is under-assessed.

P-184
Evaluation of quality indicators for patients with palliative or end-of-life care in primary health care

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Background and aim: Study on the quality of clinical care for patients Palliative or End-of-Life Care assigned in a Primary Care Health Center (HC) and to compare them with patients in the Health Area (HA) and the autonomous community of Castile and León (CyL), Spain. (during the period 2015).
Method/Design: Longitudinal evaluation: Palmer's Quality Cycle.
Setting: An urban health care center. Population and Sample: Patients (total according to inclusion criteria, year 2015) with Palliative or End-of-Life Care (n=23). Interventions: Internal evaluation, dimensions: scientific-technica, quality, adequacy, accessibility, continuity of care; data related to the care process and intermediate results; explicit, evidence-based procedural criteria. Subjects: analysis of coverage. Analysis on the evolution of treatment compliance. The Z statistical test for comparing proportions, alpha 0,05.3.
Results: Compliance criteria (year 2015): – Number of patients with the Palliative or End of Life guide, active at least one day in the

period 2015: HC 23 patients, HA 499 patients, CyL 2026 patients. – How many have recorded the Visual Analog Pain Scale (VAS) in the period 2015?: HC 1 patients (4,35%), HA 80 patients (16,03%), CyL 498 patients (24,98%). – How many have registered skin and mucous care in the period 2015?: HC 0 patients (0%), HA 96 patients (19,4%), CyL 473 patients (23,35%).
Conclusions: The analysis of the records of care process indicators for patients with patients Palliative or End-of-Life Care makes us aware of the importance of patient control. Registration allows us to evidence improvements in the care process. To make a good registry of the controls, to adapt the interventions with the patient, adapting them to each case. After our analysis we say that we must improve the uptake of patients with patients Palliative or End-of-Life Care and the quality of the records of the care process.

P-185
Gastrostomy's implantation in the geriatric patient: survival analysis

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Introduction: Gastrostomy's implantation in the elderly patient supposes in many times an ethical issue, especially in relation to the effectiveness of them extending the life of our patients. The decision to place the gastrostomy involves, among others, the assessment of the cause of dysphagia.
Study design: Retrospective study in patients older than 75 years who underwent gastrostomy's implants due to different causes.
Sample: Patients older than 75 years, hospitalized in the Geriatrics, Internal Medicine and Neurology departments of Toledo Hospital Complex, in the period from 2011 to 2016, who underwent gastrostomy's implants during admission.
Material and methods: For our study, we used a collection notebook with different variables including dysphagia, patient comorbidity, cognitive and functional status, age, place of residence, type of enteral nutrition, post-implant survival and cause of death If it had happened.
Results: Sample of 197 patients, 53.3% women. Regarding the cause of dysphagia, in 29.9% of patients it was cerebrovascular accident, in 60.7% the cause was cognitive impairment in different stages and in the remaining 9.4% it was motivated by other reasons. The service that most requested the placement of gastrostomy was Geriatrics department. In 50.3% of the cases, the diet used was normoproteic and normocaloric. Regarding the survival after gastrostomy, the median was 16 months (95% CI: 8.78–23.21). In subgroup analysis, survival after stroke was 22 months (95% CI: 4.15–39.8) and in 17-month (moderate-severe) dementia (95% CI: 5.77–28.22) Without appreciating significant differences between them (p: 0.984).
Conclusions: After the analysis, we conclude that the underlying pathology or the cognitive status should not be an impediment to the initiation of enteral nutrition, since we did not appreciate significant differences in mean survival after implantation.

P-186
How do the doctors live mourning in their wards?

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The recognition of human finitude is essential to the knowledge of all health professionals, since death will be part sooner or later of their daily lives. Observational, Cross-sectional study, convenience sampling. Included all the physicians who worked at the Internal Medicine/Geriatrics wards. An anonymous online questionnaire was created with Googleforms®, with 47 multiple choice questions evaluating sociodemographic issues, professional experience and training skills in Clinical Communication (CC), Palliative (PC) and Mourning Care (MC). The response rate was 32% (56/175). Therefore 75% were female, 71.4% residents, with 25–30 years old (53.6%). Most of them (43%) were working less than 1 year. Negative answers for training skills in PC (57.1%), CC (71.5%) and MC (58.9%). It is agreed the universal need of MC training (94,6%), because 47,9% are incapable of answering the patients' needs. Death is a natural process (100%), 12.5% of these professionals had advanced directives of will (ADW) and about 10% are in mourning. When a patient dies 87.5% can give bad notices by telephone and 97.4% personally, but 46% with difficulty. The majority (80.4%) feel that death isn't a clinical failure, 85,7% include the patient/caregivers in decision-making and 71.5% talk about the patients' ADW. Then 62.5% can recognize non-adaptive mourning. After the patient's death, 5.4% make telephonic contact and around 10% schedule meetings. Only 5.4% participated in the funeral celebrations. Universal training skills in this area is required, both at the pre-graduate and post-graduate levels since most of these professionals are very young and with lack of experience.

P-187
Improvement in DNACPR discussion and form completion in elderly oncology patients

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Introduction: The General Medical Council and Resuscitation Council UK guidance advises a Do Not Attempt Cardio Pulmonary Resuscitation (DNACPR) discussion and form should be considered in patients with advanced disease, irreversible disease or those approaching end of life. The project aim was to improve forward planning with early DNACPR decisions in elderly oncology patients.
Methods: We identified 30 patients over 65 years with end stage cancer who were audited for DNACPR discussion and form completion. The 1st round interventions included audit result feedback, and teaching. 2nd round interventions included prompting senior Doctors, increasing DNACPR form availability and addition of a DNACPR status on the ward list. Re-audits post intervention was performed to assess improvement.
Results: A n initial audit showed 12 (40%) patients had a DNACPR discussion and form documented. Following 1st round interventions there was an improvement to 20 (67%) patients, and post 2nd round interventions a further improvement to 26 (87%) of 30 patients, with a DNACPR discussion and form documented.
Conclusions: The project showed that audit feedback, teaching, prompting Senior Doctors, increased form availability and a DNACPR section on the Oncology patient list, encouraged good practice. In turn this improved early and timely DNACPR discussion and form completion to 87% in elderly end stage oncology patients.

P-188
Inhospital mortality risk model in very old patients admitted with descompensated congestive heart failure. A view from palliative care

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Introduction: Objective: design a risk model which help identify patients with descompensated congestive heart failure (DCHF) at high risk for in-hospital mortality who might benefit from palliative care in a Geriatric department.
Methods: Retrospective cohort study. Includes patients ≥80 years old admitted to a Geriatric Acute Care Unit with DCHF. January2012 - December2014. Variables included: Age, sex, cardiovascular risk factors, comorbidity, NYHA class, functional status, geriatric syndromes, treatment, left ventricular ejection function and laboratory

variables, previous treatment and cause of exacerbation. In-hospital mortality was the primary outcome. A multivariate logistic regression analysis was performed. Discrimination was examined with ROC curves and an internal validation and a score were carried out. Statistical analysis: SPSS version 23.0.
Results: 629 patients, age: 90 (SD5), female: 470 (73.1%). Severe comorbidity (Charlson Index ≥3): 559 (89%). Died during hospitalization: 86 (13.7%). Multivariate analysis: NYHA class III and IV (OR: 2.03; 95% CI: 1.13–3.66), Katz index <2 (OR: 1.77; 95%CI: 0.98–3.19), infection as cause of exacerbation of HF (OR: 2.06; 95% CI: 1.09–3.87), polypharmacy (OR: 1.87; 95% CI: 1.05–3.33), albumin <3 mg/dl (OR: 1.85; 95% CI: 1.03–3.31), glomerular filtration rate <60 ml/min (OR: 2.21; 95% CI: 1.12–4.37), hyperkalemia >5.5 mEq/L (OR: 2.60; 95% CI: 1.01–6.69) and RDW >17% (OR: 3.33; CI: 1.84–6.03). The area under ROC curve was 0.78 (CI: 0.73–0.84, p=0.029). Internal validation 0.77 (95% CI: 0.71–0.82, p=0.03).
Conclusion: This model allows to detect that older patient with advanced organ disease that would benefit from palliative care, using easily obtainable clinical variables and analytical parameters in addition to the cardiovascular factors.

P-189
Knowledge about advance directives and attitudes towards discussing end-of-life care in older people attending primary care clinics

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Introduction: Advanced directives on end-of-life care preferences were regulated by Law in Spain in 2002. However, little is known about a, information received and use of living wills by older people in our country.
Method: Descriptive study of an opportunistic sample of subjects 65+ years old attending two primary care practices. A structured interview was used to assess knowledge on advance directives and availability of a living will, where information was obtained, and attitudes about discussing end-of-life issues.
Results: 243 subjects (88.9% living in the community, 11.1% in care homes), mean age 78.1 years (65–100), 39.5% males. Education: 23% secondary or higher, 69% primary studies, 7% illiterate. Only 16.9% knew what advance directives are (most of them through social media, few from family or physicians) and only 2 (0.8%) had a living will. 57.2% of the subjects they were reluctant to discuss end-of-life issues. Should they start a discussion, 70% would do it with members of their family, 16% with health care providers, 9% with friends; 5% would never accept discussing this topic.
Conclusions: Roughly 17% older subjects in our country have any information about advance directives, 15 years after the Law was passed. They mostly receive information through social media, with a marginal role for doctors. Less than 1% has a living will. A large majority are reluctant to discuss this topic and would start such discussion with family members. New approaches should be explored to improve the use of advance directives in our country.

P-190
Living with advanced chronic heart failure: a phenomenological study

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Introduction: Chronic Heart Failure (CHF) is increasing in prevalence and will continue to do so with an ageing population. Few studies describe the experiences of elderly people who are very ill and living with advanced CHF from a lifeworld perspective and how meaning is created about personal dignity in daily life.
Methods: Data were collected through in-depth interviews with twelve Portuguese older people with advanced CHF. The transcribed texts from the interviews' were analysed using phenomenological hermeneutical method.
Findings: The results demonstrate two main themes: the perspective of oneself as vulnerable and as a significant person. From the elderly people's stories it is clear that in order to keep a sense of dignity people need to be seen and respected for who they are. This study adduces ethical questions about a person's basic rights to be cared for with dignity, also providing the elements required for realizing and maintaining respect in the care of older people in home settings and the factors connected to it.
Conclusions: Findings demonstrate the need for health care professionals to find an approach that ensures both good quality medical care and, at the same time, acknowledges the uniqueness of each subject.

P-191
Palliative care and symptom control at the end of life in very old patients admitted with advanced dementia

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Introduction: The objective was to analyze the medical management and symptom control at the end of life of patients with advanced dementia admitted to an acute geriatric unit (AGU).
Methods: Descriptive study in patients aged 75 and older, with a history of severe dementia admitted at the AGU (died from any cause). January 2014 to December 2015. Variables: demographic data, medical history, type of dementia, comorbidity (Charlson index), functional status (Barthel index), polypharmacy, reason for admission and cause of death, advance directives and adequacy of therapeutic effort. In the last 48 hours we evaluated: symptom control, treatment, complementary tests. Statistical analysis: SPSS version 23.0.
Results: 50 patients, age 88.8 (SD: 5.9), female 50%. institutionalized 28%. Number of drugs: 7 (IQR 4–9), median hospital stay: 6 (IQR 3–12.25), primary caregiver - family:66%. Type of dementia (Alzheimer:44%, vascular:6%, mixed:14%, not studied:28%, others:8%). Charlson index: 2 (IQR 1–3). Pluripathology:80%, Barthel index <20: 90%, dysphagia:52%. Cause of admission (respiratory tract:36%, urinary tract:18%, neurological:14%, infected pressure ulcers:12%) Cause of death (respiratory tract:42%, urinary tract:20%, infected pressure ulcers:10%, neurological:8%) Not control symptoms: pain:14%, dyspnea:48%, psychomotor agitation:24%, nausea:2%, respiratory secretions:60%. Drugs used for symptom control: sedatives:54%, opioids:82%, neuroleptics:14%, anticholinergics:50%, analgesics:74%, Oxygen:78%. Complementary tests: blood test:40%, X-ray:28%. Remained Intravenous hydration:24%, remained active treatment with antibiotics:24%. DNR order:94%. Active treatment (suspended:66%, not initiated:16%), adequacy of therapeutic effort:84%, information to the family:96%. None of the patients had advance directives.
Conclusion: There was an adequate clinical recognition of patients at the end of life. Eventhough a few remained with active treatment perhaps due to a rapidly progressive deterioration.

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The geriatric dilemma: is less aggressive management a trap of ageism or letting nature take its course?

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We report a case of a ninety-five year old male who is a known case of vascular dementia and a resident at St. Vincent de Paul Residence. His general condition deteriorated owing to episodes of shortness of breath secondary to recurrent pleural effusions and lung collapse. He was managed with repeated thoracentesis and chest drain insertion. Appropriate management led to a dramatic improvement. Even though the patient in question was ninety-five years of age with co-morbidities, great symptomatic improvement was achieved. This case highlights how appropriate intervention has led to an improvement in the quality of life of the patient in spite of his age and his co-morbidities. Thus, the clinician should not be caught in the trap of ageism and withhold treatment at a relatively early point in the management of elderly patients in distress.

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The Gold standard Framework in Acute Hospital- Priorities for care of the dying person

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Introduction: The Gold Standard Framework (GSF) is a programme designed to identify patients that are progressing towards the end stages of their lives and empowering these patients by involving them in the management plan allowing them to make decisions regarding their end of life care such as preferred place of care. GSF also provide appropriate support for patients in community requiring palliative input also improve communication between community and hospital teams.
Methods: A retrospective analysis of total 623 patients were registered for GSF and on the palliative registry from 2013 to 2017. Patients were identified suitable for GSF by clinical judgement during their admission in hospital. The question posed in identifying these patients was suitable for GSF discussion with the patient and family. Patients were then stratified into colour coding depending on their prognosis or life expectancy.
Results: Median Age of the population group was 85, 483 (77%) patients had passed away since they had been added to the registry, 397 (64%) had decided on a preferred place of care. 175 (28%) patients had chosen their preferred place to be their own home. Clear escalation plan communicated with patient and family members and 72% alert recorded in central computer database.
Conclusion: GSF Allows sufficient time for physicians to engage in the topic of end of life and for patients to reflect on their end of life plans also empowers patients and relatives to make decisions regarding their end of life and minimise traumatic experiences for patients in their end of life care.

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Validation of the Supportive snd Palliative Care Indicators Tool (SPICT) in a geriatric population

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Introduction: Timely identification of patients in need of palliative care is especially challenging in a geriatric population because of prognostic uncertainty. The Supportive and Palliative Care Indicators Tool (SPICT) aims at facilitating this identification, yet hasn't been validated in a geriatric population admitted to the hospital.
Methods: All patients admitted to the acute geriatric ward of a Belgian university hospital between January 1st and June 30th 2014 were included. Data considering demographics, functional status, comorbidities, Do-Not-Resuscitate (DNR) codes and one-year mortality were collected. SPICT was measured retrospectively by an independent assessor.
Results: Out of 435 included patients, 54.7% had a positive SPICT, using a cut-off value of two for the general indicators and a cut-off value of one for the clinical questions. SPICT-positive patients were older (P=0.003), more frequently male (P=0.028) and had more comorbidities (P=0.015) than SPICT-negative patients. The overall one-year mortality was 32.2%, 48.7% in SPICT-positive patients and 11.5% in SPICT-negative patients ($P<0.001$). SPICT predicted the one-year mortality with a sensitivity of 0.841 and a specificity of 0.579. The area under the curve of the general indicators (0.758) and the clinical indicators of SPICT (0.748) did not differ (P=0.64). In 71.4% of SPICT-positive cases, a DNR-code was present versus 26.9% in SPICT-negative cases ($P<0.001$).
Conclusions: SPICT is a valuable tool for identifying geriatric patients in need of palliative care as it is significantly associated with one-year mortality and with clinical predictive survival by experienced geriatricians, as reflected by DNR-codes given.

P-195

What leads care managers to engage in end-of-life discussions with older clients in Japan? An examination on the effect of clients' use of home-visiting medical care services

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Introduction: Using national long-term care insurance, Japanese older adults are supposed to consult with care managers about how to arrange public care services to negotiate age-related functional decline. Given the influence that care managers exert on older adults' lives, they have the potential to encourage their clients to become prepared for their end-of-life. Our aim in this study was to explore whether and how care managers' engagement in end-of-life discussions with their clients was influenced by clients' use of medical care services in home.
Methods: We conducted a mail survey of care managers from certified home care support offices in both urban and rural Japan (N=3,320). Data were analyzed to identify whether and how the number of clients who received home-visiting medical care was associated with (a) the proportion of clients with whom participants talked about end-of-life preferences and (b) that of clients they asked about type(s) of medical treatment wished for in their end-of-life.
Results: Having had more clients who received home-visiting medical care made it more likely for participants to talk with their clients about both general end-of-life preferences and wished-for type(s) of medical treatment. These results were obtained while controlling for participants' job-related backgrounds.
Conclusions: Results suggest that Japanese care managers are urged to engage in end-of-life discussions in the process of arranging in-home medical care services for their clients. Future research should investigate what leads them to engage in such discussions before their clients become so seriously ill as to require substantial medical care.

Area: Frailty and sarcopenia

P-196
1-Year change in quality of life, assessed with the specific questionnaire SarQol®, is associated with 1-year change in physical performance

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Background: Recently, the SarQoL®, a quality of life questionnaire specific for sarcopenia has been developed. Our aim was to assess the relationship between 1-year change in quality of life (QoL) and 1-year change in musculoskeletal health.
Methods: The SarQoL®, the specific QoL questionnaire, as well as the EQ-5D and the EQVAS, two generic QoL questionnaires were completed by 301 subjects from the SarcoPhAge study (Sarcopenia and Physical impairments with advancing Age, a cohort developed in Belgium). Muscle mass (ALM/h^2, assessed with DXA), grip strength (assessed with hydraulic dynamometer) and gait speed were evaluated. Sarcopenia was diagnosed according to the EWGSOP algorithm.
Results: After one year of follow-up, the QoL of the general population (75.0±5.97 years, 59% women) decreased ($p<0.001$ with the SarQoL®, p=0.03 with the EQVAS, $p<0.001$ with the EQ-5D). The ALM/h^2 was not significantly modified but a decrease in muscle strength and gait speed was observed ($p<0.001$ for both). A significant correlation was found between 1-year decrease in gait speed and 1-year decrease in QoL only when using the specific questionnaire SarQoL®, but not when using the generic EQ-5D or EQVAS tools. Results indicated a correlation of r=0.21 ($p<0.001$) for the whole cohort population and r=0.41 (p=0.013) for the sarcopenic elders (n=38). These associations were not observed for muscle mass (p=0.65) or muscle strength (p=0.06). Using a multivariate regression the association between decreased gait speed and decreased QoL, assessed with the SarQoL®, was significant, independently of age, sex, number of comorbidities and number of drugs ($p<0.001$ for both whole cohort and sarcopenic subjects).
Conclusion: Our findings suggest that a decrease in physical performance (gait speed) is associated with a decrease in QoL, specific of muscle impairments, in elders and more specifically in those suffering from sarcopenia. The specific SarQoL® seems better adapted than generic tools to identify decrease in QoL related to muscle function.

P-197
A simple, pragmatic frailty detection tool can predict adverse outcomes when used in the Emergency Department

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Introduction: Older people commonly experience adverse outcomes after urgent care use; early identification of frailty is key to allow targeted interventions.
Methods: Casenote review of consecutive emergency department (ED) attendances in patients aged 75+ for the British Geriatrics Society's Frailsafe screening questions [1] and demographics. Electronic record review for admission outcomes, mortality, re-attendance at 30, 120, 180 days and institutionalisation at 180 days.
Results: 468 patients were included. Frailsafe was completed in 356 patients. Mean (Standard deviation (SD)) age was 85.8 (5.8) for frail and 82.2 (5.4) for non-frail patients ($p<0.001$). More frail than non-frail patients had died (35/190 (18.4%) vs 15/152 (9.9%), p=0.026) or been institutionalised (22/190 (11.6%) vs 2/152 (1.3%), $p<0.001$) at 180 days. Admitted frail patients had greater median (interquartile range) lengths of stay (LOS) (7 (2–32) vs 4 (2–10), p=0.037), inpatient mortality (12/116 (10.3%) vs 3/81 (3.7%), p=0.043), and 30-day re-attendance (33/112 (29.5%) vs 11/75 (14.7%), p=0.009). Discharged patients had similar re-attendance rates. Frailsafe independently predicted LOS >28 days (adjusted odds ratio (AOR) 3.42 (95% CI: 1.41–8.31, p=0.007), 30-day post-admission re-attendance (OR 2.73 (1.27–5.88, p=0.010), combined admission-related adverse outcome (LOS>28 days/inpatient mortality/institutionalisation/30-day re-attendance) (OR 2.67 (1.42–4.99)), 180 day mortality (AOR 3.23 (1.45–7.19)) and institutionalisation (AOR 8.95 (2.01–39.83)) and combined long-term adverse outcome (death/institutionalisation at 180 days, AOR 3.55 (1.64–7.67)). Frailsafe did not predict ED re-attendance.
Conclusions: Frailsafe independently predicts adverse outcomes amongst older ED attendees, suggesting a role for routine use.
References:
[1] British Geriatrics Society. Frailsafe. [Accessed Nov 28 2016]. Available from: http://www.frailsafe.org.uk

P-198
Agreement and predictive validity of the EWGOSP and FNIH sarcopenia definitions. The Glisten study

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Background: Sarcopenia may contribute to disability and mortality. Multiple research groups, including the European Working Group on Sarcopenia in Older People (EWGSOP) and the Foundation for the National Institutes of Health (FNIH) Sarcopenia Project, proposed criteria for sarcopenia diagnosis. Although measures of muscle mass and muscle strength overlap, the operational definitions differ. We assessed agreement of EWGSOP and FNIH definitions and prediction of prevalent disability and mortality risk in a sample of older hospitalized Italian patients.
Methods: Cross sectional and longitudinal analysis of 611 participants enrolled in a multicenter observational study of older adults admitted to 12 hospitals. Weakness was determined according to handgrip strength using a hand dynamometer, appendicular lean mass using bioimpedance analysis, and walking speed according to 4-m usual walking speed. For both definitions two categories of intermediate and severe sarcopenia were created according to the presence of two or three criteria, respectively. Analyses were performed using Cohen's kappa, logistic regression and Cox models.
Results: Prevalence of intermediate sarcopenia was 24% and 36% using the FNIH and EWGSOP criteria, respectively, whereas prevalence of severe sarcopenia was 18% and 20%. Agreement between EWGSOP and FNIH classifications was low using both definitions (Kappa Statistic: 0.12 and 0.26, respectively). Intermediate and severe FNIH sarcopenia was statistically associated with prevalent ADL disability, but only severe EWGSOP definition was. In multivariable analyses, both FNIH definitions predict one-year mortality whereas EWGSOP definitions were not significantly associated.
Conclusions: Agreement between EWGSOP and FNIH sarcopenia definitions is low. FNIH classification better predicts important clinical endpoints.

P-199
Anemia and frailty in the elderly hospitalized in an acute unit: Preliminary results

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Introduction: Anemia is a frequent reason for hospitalization in acute geriatric units. The elderly are particularly susceptible and can condition the prognosis in cases of poor tolerance. Our goal is to

determine if anemia is a geriatric frailty factor. The main objective is to research the link between anemia and weakness according to FRIED. The secondary objectives are on the one hand looking for a link between anemia and weakness according to SEGA, and on the other hand, the research for a link between anemia and ADL, IADL, and MMS.
Method: This is a prospective, observational study, conducted in an acute geriatric unit at Rouen, from May 1 to August 31, 2016. All patients older than 65 years were included; only palliative patients were excluded.
Results: 120 patients were included, 62 anemic (51.7%). 77 women (64.2%). The average age of 86.8 years. 7% of subjects aged <75 years; 26% of subjects aged between 75 and 85 years; 68% of subjects aged ≥85 years. In the anemia group: the average age is 87.4 years; with a female predominance (42 patients). 55 patients have cardiovascular antecedents, of whom 13 have a documented heart failure. The Charlson average is 7.88. On the clinical side, 16 patients had mucocutaneous pallor and 21 had dyspnea. The hemoglobin average count is 9.7 g/dl (6 to 11.9), with an average MCV to 91.83fl, thrombocytopenia associated with 2 cases, lymphopenia associated with 18 cases and high PNN for 8 cases. On the side of autonomy and frailty: ADL average is 1.8; IADL average is 0.52; MMS average is 16.6; Fried average is 3.8 and SEGA average is 17.8. We found 7 deaths in the service. In the group of non-anemic patients: average age 86.1, with a female predominance (35 cases); history of cardiovascular disease in 49 patients, including 12 with documented heart failure. The average Charlson score is 7. The average hemoglobin is 13.48g/dl, albumin at a rate of 29.7g/l; ADL average at 3.7, IADL average at 1.9, MMS average at 18.6, SEGA average at 12.6 and Fried average at 2.26. In bivariate analysis, anemic patients are more fragile as evidenced by the Fried's score (3.87 IC [3.62; 4.12] vs. non-anemic subjects: 2.26 IC [1.89; 2.63], p<0.0001), but also SEGA score (17.87 IC [16.99, 18.75] vs. non-anemic subjects: 12.62 [11.33, 13.91], p<0.0001) and less autonomous (ADL: 1.81 IC [1.51; 2.11] vs. non-anemic subjects IC 3.69 [3.27; 4.11], p<0.0001; IADL 0.53 IC [0.32; 0.75] VS non-anemic subjects 1.88 [1.58; 2.18], p<0.0001). In multivariate analysis, we can say that on average, anemic subjects have a FRIED score increase of 1.64 compared to non-anemic (of the sample). The increasing of FRIED score in anemics should be between 1.21 and 2.08. If we adjust on albumin, age, sex, and heart failure, the result is almost unchanged. This means that albumin, gender, age, and heart failure equal, a subject that has anemia will have on average a FRIED larger of 1.64 point compared to a non-anemic subject (95: 1,19; 2.09). These results are significant (p<0.0001). Multivariate analysis wasn't done for the MMS because some data is missing.
Conclusion: In all cases, anemia is a frailty marker independent from albumin, age, sex, heart failure. The clinical contribution of anemia in evaluating frailty is not obvious. If FRIED was made for a patient, does the information of anemia bring something? To answer the question, we should analyze the relationship of the adjusted anemia on the FRIED in models explaining an outcome such as rehospitalization, falls, or death.

P-200
Association between fall in the previous year with some comprehensive geriatric assessment components

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Introduction: In this study, we aimed to analyse the association between fall in the previous year with some comprehensive geriatric assessment components.
Methods: The subjects were composed of older adults (>65 y) admitted to geriatric outpatient polyclinic of a university hospital in Istanbul, Turkia between October 2016 and April 2017. We retrieved data on fall in the previous year, postural instability, short physical performance battery, functional reach, BIA detected fat %, ADL, IADL, urinary incontinence, constipation, SARC-F sarcopenia screening test. The correlation between fall number in previous 1 year and the aforementioned parameters were investigated.
Results: A total of n=186 participants (125 female, 61 male) were included. There were 82 participants with at least 1 fall in last year (58 female, 24 male). Mean age was 76±7.4 years. There was a moderate and significant association between the fall no, urinary incontinence (r=0.54, p<0.0001) and SARC-F sarcopenia score (r=0.38, p=0.004).
Conclusions: In predicting falls, urinary incontinence and sarcopenia detected by SARC-F score may aid the clinicians.

P-201
Association between frailty and phase angle derived from bioelectrical impedance analysis among elderly patients

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Introduction: Phase angle derived from bioelectrical impedance analysis is a parameter that has been shown to be associated with sarcopenia and malnutrition in the elderly population. However, its relationship with frailty has not been adequately studied. Here, we aimed to investigate association between phase angle and frailty in elderly.
Material and methods: One hundred and eighty-eight elderly patients (age over 65) were included in the study. All patients underwent comprehensive geriatric assessment. The frailty status of the patients were evaluated by Fried's Frailty Index which has five components including weight loss, weakness, exhaustion, low activity and slow speed walking. Those who had three or more positive results in this scale were considered "frail", 1–2 points were considered "pre-frail" and those who satisfied none of these criteria were considered "robust". All patients were evaluated by using bioelectrical analysis device to determine phase angles.
Results: The median age of the patients were 74 years (min-max: 65–91) and 41.5% were female. The most common co-morbidities were hypertension (75.5%) and diabetes mellitus (41.0%). Mean ± SD phase angle was lower in frail group compared to pre-frail and robust groups (4.12±0.79 vs. 4.60±0.63 vs. 5.20±0.80, respectively) (p<0.001). The parameters which were significantly different (p<0.2) in univariate analysis were included in multivariate analysis and phase angle (OR: 0.360, p=0.018), age (OR: 1.132, p=0.020), mini-mental state examination (OR: 0.777, p<0.001) and Yesavage geriatric depression scale (OR: 1.307, p=0.002) were found to be independently associated with frailty. Receiver operating characteristic (ROC) analysis suggested that optimum cut-off point of phase angle for frailty was ≤4.00 with 54.8% sensitivity, 91.0% specificity, 54.8% positive predictive value and 91.1% negative predictive value (AUC: 0.751, p<0.001).
Conclusion: Our results suggest that phase angle may be an independently associated factor for frailty. Further prospective studies are needed to investigate casual relationships between these entities.

P-202
Association between results on four clinimetric tests at hospital discharge and falls after hospitalisation in older patients

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Introduction: Thirty percent of community dwelling people aged 65 and over fall at least once a year. Emergency room visits have

increased up to 137% in the last 20 years [1]. Many clinimetric tests are available to analyse and predict the risk of falling. However, little is known about the risk of falling after hospitalisation and how to evaluate this risk. The main objective of this study is to assess the association between the results on four clinimetric tests at hospital discharge and falls after this hospital stay.

Methods: We performed an observational study including patients of 65 years or older admitted to internal medicine, pulmonary and gastroenterology wards of the Catharina Hospital in Eindhoven, the Netherlands. Participants performed four clinimetric tests at discharge: timed up and go, chairstand, handgrip strength and legstrength. After discharge, participants used a fall calendar and we contacted participants by phone every two weeks for 18 weeks. We compared outcomes on clinimetric tests of fallers with those of non-fallers using Students T-test.

Results: We included 129 participants, of which 41% were female and mean age was 75 years. Thirty-four participants reported a fall after hospitalisation. Pair wise comparisons found no difference in results on clinimetric tests between fallers and non-fallers.

Conclusions: There is no association between results on four clinimetric tests at discharge and falls in four months after discharge. For predicting fall risk after hospitalisation using clinimetric tests further research is necessary.

References:

[1] Hartholt KA, et al. Trends in fall-related hospital admissions in older persons in the Netherlands. Arch Intern Med. 2010 May 24;170(10):905–11.

P-203

Association of physical frailty with cognitive function and mood in patients without dementia and depression

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Aim and background: Frailtyis mostly defined as a geriatric syndrome consists of medical problems and functional loss increasing the risk of hospitalization and may result in mortality. It is thought that physical frailty is related to cognitive functions and social status. In this study, we evaluated the associationof physical frailty with cognitive function and mood in patients without dementia and depression.

Material and methods: In this study, we evaluated 612 patients aged 65 years and over admitted to our outpatient clinic. For evaluation of physical frailty we used Fried criteria. According to Fried criteria, the patients having 3 or more points were reported as frail, having 1 or 2 points as pre-frail and 0 point as robust. We also performed detailed comprehensive geriatric assessment. Depression status of the patients was screened with Yesavage Geriatric Depression scale. Cognitive functions were screened with MMSE and clock drawing test. Patients with dementia and depression were excluded.

Results: Mean age of the patients was 72 and 58% was female. Diabetes mellitus and hypertention were the most common comorbidities (35,6% and 67,2% respectively). Forty five percent of patients were robust, 48.4% were prefrail and 6.5% were frail. When grouped according to fraility, clock drawing test ($p<0.001$), MiniMental State Examination test ($p<0.001$), Yesavage Geriatric Depression scal (p:0.01) weresignificantly different between groups. Age (p: 0.009), educational level, being university graduat (p:0.031), three words recall tes (p: 0.014), Activities of Daily Livingscore (p: 0,006), Instrumental Activities of Daily Livingscore ($p<0.001$), Mini Nutritional Assessment (p: 0.001) were determined to be independent factors related to fraility.

Conclusion: In this study, we have demonstrated that cognitive function and mood are associated with physical fraility in patients without dementia and depression. Further studies are needed to elucidate the causal relationship between these entities.

P-204

Audit: Implementation of vitamin D guidelines in hip fracture care pathway to improve management of vitamin D deficiency

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A growing cohort of evidence suggests Vitamin D supplementation in patients with fracture neck of femur is associated with reduced readmission rates, improved physical performance and reduced risk of further fractures. Prior to February 2015, there were no recommendations on the local Hip Fracture pathway regarding Vitamin D testing or management. 0% of patients had vitamin D levels checked. In February 2015, National Osteoporosis Society guidelines were incorporated into a Hip Fracture Care pathway. The following audit assessed if incorporation of these guidelines in the Hip Fracture Care Pathway improved vitamin D deficiency management in fracture neck of femur patients. A cohort of patients admitted with fracture neck of femur were analysed from February 2016 - Information obtained via patient e-records.49 patients were studied. 41 patients had vitamin D levels checked on admission (84%). Of these 41 patients, 16 were vitamin D deficient – 8 patients were given a loading regime of colecalciferol (50%), 5 received the maintenance dose of Adcal (31%) and 3 received no intervention (19%). Where colecalciferol was prescribed, information regarding monitoring was provided on the discharge letter to primary care in 100% of cases. Patients with vitamin D level >25nmol/L, 92% of patients received Adcal D3. Incorporation of Vitamin D guidelines within a hip fracture protocol has significantly improved identification and management of Vitamin D deficiency. To further improve compliance, we aim to develop a flagged note on e-prescribing systems when prescribing colecalciferol, advising what to prescribe, and include Vitamin D tests in A&E Triage.

P-205

Cathepsin K activity controls cardiotoxin-induced skeletal muscle repair in mice

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Introduction: Cathepsin K (CatK) is a widely expressed cysteinyl protease that has gained attention due to its enzymatic function and nonenzymatic function as signaling. Here, we hypothesized that CatK-deficient (CatK−/−) would mitigate injury-related skeletal muscle remodeling and fibrosis in mice, with a special focus on inflammation and cell apoptosis.

Methods: Cardiotoxin was injected into the left gastrocsoleus muscle of male wild-type (CatK+/+) and CatK−/− mice, and then the mice were processed for morphological and biochemical studies.

Results: On post-injection day 14, CatK deletion ameliorated the muscle interstitial fibrosis and remodeling and performance. At an early time point (day 3), CatK−/− educed the lesion macrophage and leukocyte contents and cell apoptosis, the mRNA levels of monocyte chemoattractant protein-1, toll-like receptor-2, and toll-like eceptor-4, and the gelatinolytic activity related to matrix metalloproteinase-2/-9. CatK silencing also restored the changes in the protein levels of caspase-3 and cleaved aspase-8 and the ratio of the BAX to the BCL-2. Moreover, CatK deficiency protected muscle fiber laminin and desmin disorder in response to CTX injury. These muscle eneficial effects were mimicked by CatK-specific inhibitor treatment. In vitro experiments demonstrated that pharmacological CatK inhibition reduced C2C12 mouse myoblasts' apoptosis and the levels of BAX and caspase-3 proteins induced byCTX.

Conclusions: These results demonstrate an essential role of CatK in skeletal muscle loss and fibrosis in response to CTX injury, possibly via the reduction of inflammation and cell apoptosis, suggesting a novel therapeutic strategy for the control of skeletal muscle diseases by regulating CatK activity.

P-206
Cellular senescence and falls in elderly patients with sarcopenia

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Background: Immunosenescence involves changes in the immune system which result in chronic, low-grade inflammation, higher prevalence of infections and other age-related diseases. Inflammation contributes to age-associated loss of muscle mass, sarcopenia and elevated risk of falls. The aim of the study was to examine adaptive immune system and the presence of persistent infection in the context of functional impairments in elderly patients with sarcopenia.
Methods: Flow cytometry studies were performed in patients 70 years and older with performance score 3–9 points in short physical performance battery (SPPB) and sarcopenia diagnosed using SARC-F questionnaire and DXA measurements. Lymphocytes T and B subsets, including cells representing "immune risk profile": CD19, terminally differentiated CD8+CD45RA+CCR7-CD27-CD28- (TEMRA), CD4+/CD8+ ratio were evaluated, as well as cytomegalovirus (CMV) IgG seropositivity.
Results: Mean age of 38 patients (84% women) was 77.9±5.9 years. The prevalence of CMV serology was 84%. The percentage of CD8+TEMRA lymphocytes was negatively associated with BMI-adjusted appendicular lean mass ($r=-0.35$; $p<0.05$). Over half of study participants (52%) reported having experienced a fall within past year. Patients with falls had higher SARC-F score (3.3±1.4 vs. 1.8±1.5; $p=0.003$). We found increased prevalence of CD8+TEMRA lymphocytes in patients with history of falls compared with non-fallers (2.0 [1.0–3.3]% vs. 0.6 [0.3–1.6]%; $p=0.01$).
Conclusion: Our findings indicate that persistent viral infection leading to accumulation of senescent, pro-inflammatory, highly differentiated CD8+ T cells may be related with loss of muscle mass and may contribute to elevated risk of falls in elderly, sarcopenic patients.

P-207
Challenges with a new tool in screening of frailty

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Introduction: Frailty represents an important issue in geriatric assessment. Atherosclerosis is one of the most frequent pathology and an important risk factor for cardiovascular disease at the elderly [1]. We aimed to create a new index for an easier screening tool of frailty at elderly with diabetes or cardiovascular pathology.
Methods: This is an observational six months study (June-December 2016) included 143 participants; 81.2% female and 18.8% males; mean age was 72.28±10.098 years, with or without diabetes. Frail assessment was made by Fried's five criteria established. We included arterial stiffness (Aortic pulse wave velocity-PWVaortic) in the new index. This was measured using an oscillometric device (Arteriograph)[2] in addition to a medical history, physical examination, and laboratory tests.
Results: Outcomes shows statistically significant correlation between frailty and arterial stiffness on diabetic than non-diabetic groups (Chi square test,$p=0.010$). Women are more frail (Chi square test,$p=0.039$) and in particular elderly living alone (Chi square test, $p<0.001$) in urban areas. PWV aortic shows a frailty better classification: frail group (19.57%) became pre-frail (14.68%) and robust (4.89%) in new classification.
Conclusions: Vascular assessment is useful in clinical evaluation of frailty, alongside of Fried's phenotype. A pre-frail old people can become a robust one with a personalized cardiovascular treatment.
References:
[1] Capisizu A, Aurelian SM, Badiu C, Zamfirescu A. Multifactorial hemodynamic entities of hypertension at the elderly. Acta Medica Mediterranea 2015; 31(4):847–850.
[2] Ring M, Eriksson M, Zierath JR, Caidahl K. Arterial stiffness estimation in healthy subjects: a validation of oscillometric (Arteriograph) and tonometric (SphygmoCor) techniques. Hypertension Research (2014) 37, 999–1007.

P-208
Changes in skeletal muscle mass assessed with BIA during acute hospital admission

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Introduction: Bio-impedance analysis (BIA) is a simple portable method to assess skeletal muscle mass in older patients that can be used at bedside during hospital admission. However, dehydration and fluid overload, frequent in acute care, may limit its value in this setting. We are studying changes in BIA skeletal muscle mass (SM) during hospital admission, we report here a preliminary analysis of the first subjects included.
Methods: Prospective, observational study of all patients admitted to a geriatric acute care unit. Muscle mass was estimated by BIA (Janssen's equation) on admission and at discharge.
Results: 81 patients have been included in the study at this time (60% women, mean age 93±4 years, mean length of stay 7±5 days, mortality 7%). All data were available in 61 patients. When comparing SM at admission and discharge, 58% had a loss of SM, 4% had a stable SM and 38% had an increased SM at discharge. Average change during admission was 1±1kg (Range: 0.02–14.6kg). Those who lost SM were more often males (53% vs 22%, $p=0.01$) and had more anemia (31% vs 4%, $p<0.05$). We found no differences in age, comorbidities, ADLs, use of drugs or social status with those that did not lose SM. We found no differences according main diagnosis, or length of stay. Mean CPR was higher in those with loss of SM (118 vs 52, p=0,007).
Conclusions: Skeletal muscle mass can be estimated with BIA in acute geriatric patients, and changes along hospital admission. Whether this changes are due to changes in hydration or with a real loss of muscle mass remains to be determined.

P-209
Characteristics of elderly fallers with hip fractures in Singapore

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Introduction: Falls leads to an estimated 95% of hip fractures incidence in elderly population resulting in hospitalization, disability, and loss of independence. One-year mortality rates after this injury range from 20–30%. Approximately half of patients who used to live independently became reliant on their caregivers or required institutionalization. This study aims to characterize the elderly fallers with hip fracture in Singapore.
Methods: This is a retrospective cross-sectional analysis of patients

aged ≥65 years via review of medical records, hospitalized from May–August 2016, due to hip fractures caused by a falls. Elderly with osteoporotic fracture and low velocity trauma were included.
Results: A total of 104 patient, 81.3±7.5 years old with Barthel score, 91.7±19.4 were hospitalized for falls-related hip fracture during the study period. Majority were female (70.2%), Chinese (86.5%) and with 6 or less years of education (72.1%). Most were able to ambulate independently (65.4%) and 43.3% have no caregivers before the falls. The population was generally healthy with low score on Charlson Comorbidity Index (CCI), median 1 (IQR: 0–2) and 60.6% have no history of recurrent falls. The Vitamin D level was low in the population, 20.7±6.6 ng/ml. After hospitalized for 19±13 days, patients were discharged to home (51%), community hospitals (44.2%) for rehabilitation and nursing home (5%).
Conclusions: Falls leading to hip fractures is devastating, causing significant impact in morbidity and mortality outcomes. Given these serious consequences, it is vital to adopt a multifactorial approach, involving education, medication review, exercises and home modification to prevent falls in the community dwelling elderly population.

P-210
Clinical characteristics and outcomes of frail old patients with anticoagulant therapy for atrial fibrillation

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Purpose: Preventing embolic cerebral infarction is important since it decreases activity of daily living and quality of life in old people. However, appropriate use of anticoagulants is difficult in frail old people because of increasing risk of bleeding events. Thus the present study examined the predictive factor for practical management of anticoagulants in older patients.
Methods: 783 patients aged ≧65 who were admitted to the geriatric ward of the University of Tokyo Hospital between 2013 and 2015 were enrolled. 90 patients (men 47%, mean age 85 years) had atrial fibrillation. We followed the patients for 1 to 3 years after baseline. Major gastrointestinal bleeding, stroke and all cause mortality were investigated for outcome.
Results: Among them, 52% were taking anticoagulant therapy. Factors affecting the decision about administration of anticoagulants for physician were risks for fall, history of bleeding, levels of cognition function. There was no significant difference between with or without anticoagulant therapy in all three outcomes.
Conclusions: Age, risks for fall, cognition function and levels of ADL might be the predictor factors for practical management of anticoagulants in frail old people with atrial fibrillation.

P-211
Correlation between the Clinical Frailty Scale and the frailty phenotype in community dwelling elderly with multimorbidity

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Introduction: The identification of frail elderly is a necessary prerequisite for preventive measures and tailored interventions. The Fried frailty phenotype (FP) is a validated, albeit resource intensive, instrument to assess frailty. The Clinical Frailty Scale (CFS) by Rockwood et al, is based on clinical judgement and is easy to use. The aim of this study was to test the agreement of the CFS with the FP in identifying frailty in community dwelling elderly with multimorbidity.
Methods: A cross-sectional study on data from 24 month follow-up of the Ambulatory Geriatric Assessment – a Frailty Intervention Trial (Participants were community dwelling elderly people with multimorbidity (n=382). Inclusion criteria: age ≥75 years, ≥3 diagnoses per ICD-10, and ≥3 inpatient admissions during the last 12 months. Frailty was assessed by FP (robust, pre-frail, frail) and the CFS (range 1–7, frail = CSF ≥5). Concurrent validity of the CFS against the FP was evaluated by Spearman Rho correlation coefficient.
Results: 211 participants were analyzed. The FP identified more participants as frail, 44% (n=92), than the CFS, 30% (n=63). The CFS moderately correlated with severity in FP (r=0.523, p=0.01). Six frail participants were phenotypically frail but classified as CSF 2 (well). Seven phenotypically robust participants were categorized as mildly frail (n=1) and apparently vulnerable (CFS 4–5) (n=6).
Conclusions: In this study the FP identified more frail older persons than the CFS and there was a moderate agreement between the methods of frailty assessment.

P-212
Correlation between vastus lateralis muscle ultrasound parameters and appendicular lean mass in older patients with physical frailty

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Background: Muscle ultrasound (MUS) has not been studied in the context of sarcopenia assessment of older people. The aim of this cross-sectional study was to verify the correlation between right vastus lateralis (RVL) MUS measures and dual-energy X-ray absorptiometry (DXA)-derived appendicular lean mass (ALM) in a group of older patients.
Methods: We enrolled 45 older (age 79±5) community-dwellers (28 F) with physical frailty, defined as Short Physical Performance Battery (SPPB) score ≥3 and ≤9. DXA scans were performed using a Hologic™ QDR 4500 A densitometer (Hologic, US). We also performed RVL MUS using a MyLab Gamma™ system (Esaote, Italy) equipped with a 5MHz linear probe, acquiring longitudinal and transversal scans with real-time and extended-field-of-view (EFOV) techniques at the 65% of muscle length. Muscle thickness (MT), fascicle length (FL), pennation angle (PA) and EFOV-derived cross-sectional area (CSA) were measured using the NIH-ImageJ software. The age-adjusted Pearson correlation coefficients between crude ALM and MUS parameters were calculated stratifying by sex.
Results: Mean values of ALM, MT, FL, PA and CSA were 16.1±2.6 kg, 1.7±0.4 cm, 10.6±2.6 cm, 9.3±5.0° and 10.9±4.8 cm^2 in females, and 21.7±3.2 kg, 1.8±0.4 cm, 12.9±3.1 cm, 9.1±3.0° and 12.8±3.1 cm^2 in males, respectively. ALM was significantly correlated with CSA in both genders (r=0.70, p<0.001, in females; r=0.46, p=0.04, in males) and MT only in females (r=0.58, p=0.001), but not with FL and PA.
Conclusions: In older patients with physical frailty, RVL MUS-derived CSA exhibited a good correlation with crude ALM, particularly in females.

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Diagnosing sarcopenia using a formula derived walking speed from the Timed Up And Go Test

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Introduction: The European Working Group on Sarcopenia in Old People (EWGSOP) defines sarcopenia as both low muscle mass and either slow walking speed (WS) or weak grip strength (GS). Previous researchers have derived the WS (DWS) using a formula adjustment of Timed-Up-and-Go-Test (TUG). The aim of this study was to assess how the DWS performed compared to WS in diagnosing sarcopenia in a falls clinic.
Methods: Consecutive attenders at a secondary care falls clinic were recruited. Muscle mass was measured by bio-impedance to estimate skeletal muscle index (SMI). Handgrip strength was measured. WS (10m) and TUG (3m) were ascertained. TUG was converted to DWS by using the formula 6/TUG*1.62 [1]. We used the EWGSOP cut-off values for WS (0.8 m/s), GS (30 kg men, 20 kg women) and SMI (8.87 kg/m^2 women, 6.42 kg/m^2 men) to diagnose sarcopenia.
Results: Fifty patients (mean age = 80.3±5.9 years; 26 women) were recruited. Mean SMI was 7.9 kg/m^2 for men and 6.8 kg/m^2 for women. Mean WS and DWS were 0.63±0.22 m/s and 0.40±0.21 m/s, respectively. Pearsons Correlation coefficient between WS and DWS was 0.66 ($p<0.001$). The formula derived TUG equivalent to a WS of 0.8 m/s was 12.2 seconds. The sensitivity, specificity, false positive rate and false negative rate for diagnosing sarcopenia using the DWS method were 100%, 92.9%, 96.0% and 100% respectively.
Discussion: We propose that the TUG can be used to estimate the WS with sufficient accuracy to diagnose sarcopenia.
Reference:

[1] "Skeletal Muscle Function Deficit" in A Nationally Representative British Birth Cohort in Early Old Age, Rachel Cooper et al, Journals of Gerontology: Medical Sciences, 2015, 604–607

P-214

Does cognitive decline play a role in the operational definition of frailty? A systematic review

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Introduction: A dvancing age is associated both with frailty and cognitive decline. The quest for a unifying approach has led to a new and evolving concept, namely cognitive frailty. This systematic review aims to elaborate the trend of assessing the cognitive domain within the existing frailty instruments.
Methods: The keywords aged; frail elderly; aged, 80 and over; frailty; diagnosis; risk management and classification were used to search for articles related to frailty instruments and published until December 2016 in the electronic databases PubMed, Web of Knowledge and PsycINFO.
Results: Out of the identified 2,863 articles, 116 described original frailty instruments. Thirty-seven were duplicates and 79 were finally included in this systematic review, describing ninety-four original or modified frailty instruments. Two instruments were excluded as their items were not sufficiently specified. Out of the remaining 92 frailty instruments, 46% included a cognitive component. Importantly, 85% of the frailty instruments inclusive of a cognitive component were published in 2011 or later. The correlation between inclusion of cognitive domain in frailty operationalisation and study publication date was significant, $\chi^2=8.45$, $p<0.05$. This review identified 7 sub-groups of cognitive assessment – dementia as co-morbidity, objective cognitive screening instruments (e.g. MMSE), self-reported cognitive screening assessments, signs and symptoms, delirium/clouding of consciousness, non-specified and mixed assessments.
Conclusion: Although cognitive assessment has been increasingly integrated in recently published frailty instruments, this has been operationalised in a heterogeneous way. Therefore, the next step is to identify the cognitive domain/s affected in cognitive frailty followed by the standardisation of its operationalisation. This, obviously, will be the groundwork for the development of preventive interventional strategies.

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Dynamic approach of the frailty status in nursing homes: the SENIOR Cohort

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Background: This study aimed to assess frailty transitions over 1-year of follow-up among nursing home residents.
Methods: This is an analysis of the 1-year follow-up of the SENIOR cohort (Sample of Elderly Nursing home Individuals: an Observational Research). All participants included in this cohort were classified into frail, pre-frail or robust according to the Fried's criteria (i.e. weight loss, weakness, exhaustion, slow gait, low physical activity level) at baseline (T0) and after a 12-month follow-up period (T12). Frailty transitions from T0 to T12 were assessed.
Results: Among the 662 residents included in the SENIOR cohort (83.2±8.99 years, 73.1% of women), 359 were included in the present analysis (i.e. 90 residents died, 2 nursing homes refused to continue the study (58 residents), 91 residents refused to be assessed at T12, 20 moved away from the nursing home, 41 were physically or cognitively unable to perform the various assessments at T12 and 3 have incomplete data). Among people with complete evaluations, respectively 75 (20.9%), 225 (62.6%) and 59 (16.4%) residents were classified frail, pre-frail and robust at baseline. At T12, these categories counted respectively 121 (33.7%; +12.8% from T0), 184 (51.2%; −11.4%) and 54 (15.1%; −1.3%) residents. Between T0 and T12, 69 (19.2%) became frail and 45 (12.5%) became pre-frail. More surprisingly, 31 (8.5%) subjects became robust although they were frail or pre-frail at baseline.
Conclusion: Frailty is a dynamic process with transitions in both directions, worsening and improvement, even within such a short period and among nursing home résidents.

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Factors affecting the subjective well-being of Japanese community-dwelling elderly at one-year follow-up: A preliminary study

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Introduction: Subjective Well-Being (SWB) is thought to be one of the primary outcome in the health promotion for the community-dwelling elderly. As health promotion specialists, we should consider how to improve or maintain their SWB. The purpose of this preliminary investigation was to examine the factors which affected SWB at one-year follow-up.
Methods: Overall, 65 community-dwelling elderly individuals participated in the study (13 men, 52 women, mean age = 75.6 years, range = 66–85). The dependent variable was SWB (five-grade evaluation; 1 = very poor, 5 = very good). The independent variables

included basic characteristics such as age, body mass index, physical functions (walking ability, Timed Up and Go test, one-legged standing time, handgrip strength), and Frailty Check List (FCL), which consisted of 25 questions. We investigated these variables at baseline and one-year follow-up. The associations between SWB at one-year follow-up and other variables at the baseline were evaluated by Spearman rank correlation.

Results and conclusions: Overall, 45 subjects participated in the one-year follow-up investigation. Significant associations were detected between SWB and walking ability, total FCL score, and sub-items of FCL (locomotive and depressive symptoms). The results suggested that it is important to improve or maintain the walking ability and mental health to ensure a higher SWB in the community-dwelling elderly; therefore, we should develop intervention strategies for this population.

P-217
Fear of falling and low-grade inflammation in sarcopenic obese older women

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Introduction: Falls and fear of falling (FoF) are both independent risk factors for losing mobility or independency in an aging population. To date, there is no data if FoF activates stress systems and stimulates inflammation fostering further health declines. Therefore, our goal was to test whether FoF was related with inflammation.

Method and results: In the FORMoSA study, community-dwelling women 70 years and older were recruited for an intervention to counteract sarcopenic obesity (SO) [1,2]. Forty-nine of those provided valid blood samples for measuring IL-6 at baseline. In those, we investigated the relationship between FoF as measured with FES-I, and low-grade inflammation via plasma interleukin (IL)-6.61.2 percent (n=30) of our participants experienced a fall in the past. FoF and IL-6 did not differ between those who had fallen and those who had not (FoF: F=0.11; p=0.92; IL-6: F=1.6; p=0.21). However, IL-6 was higher in women reporting more severe injuries after a fall (bone fractures or muscle injuries vs. bruises or abrasions; F=3.86; p=0.017), and FoF was significantly associated with IL-6 (r=0.40; p=0.044). No relationships were found in the whole group or in those without falls.

Conclusion: Our results in this very specific but small population demonstrate first trends for a possible impact of FoF on the pathophysiology of sarcopenia. In older women who had experienced a fall in the past, more severe falls, and higher fear of falling was associated with higher IL-6, providing first evidence that psychological stress resulting from previous falls was affecting inflammation, thereby potentially contributing to further health declines.

References:

[1] Kemmler, W., et al., Prevalence of sarcopenia in Germany and the corresponding effect of osteoarthritis in females 70 years and older living in the community: results of the FORMoSA study. Clin Interv Aging, 2015. 10: p. 1565–73.

[2] Kemmler, W., et al., Prevalence of sarcopenic obesity in Germany using established definitions: Baseline data of the FORMOsA study. Osteoporos Int, 2016. 27(1): p. 275–81.

P-218
Frailty and chronic kidney disease in elderly population: A prospective cohort study

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Objectives: Chronic kidney disease (CKD) is associated with physiological changes that may predispose to frailty. The principal aim of this study was to determine the prevalence and characteristics of frailty among patients with CKD. We also tried to determine if CKD is associated with frailty.

Methods: A prospective study was performed in an acute geriatric unit from February 2015 to June 2016. The frailty syndrome was assessed using Fried criteria and Modified Short Emergency Geriatric Assessment (SEGAm) score. The CKD status was defined using the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equation for a glomerular filtration rate lower than 60 ml/min/1.73m^2. Association between CKD and frailty was performed using logistic regression.

Results: Two hundred and fifty patients were included in this study (mean age =84.6±6.8 years) and 62.5% were women. Of these 250 patients, 34.3% presented a CKD. The prevalence of frailty participants with CKD was 60.2% and 81.3% according to Fried criteria and SEGAm score respectively. Moreover subjects with CKD presented a higher burden of comorbidities ($p<0.0001$) and a higher prevalence of weakness according to Fried criteria (p=0.025) compared to subjects without CKD. Finally, CKD was associated with frailty according to SEGAm score (OR 1.772, 95% CI: 1.121–2.801, p=0.014).

Conclusion: Frailty syndrome is prevalent among elderly subjects with CKD. This study may suggest an association between frailty and CKD according to the SEGAm score.

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Frailty and chronic pain: A novel association

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Objective: Frailty is most often defined as a syndrome of physiological decline in late life, characterized by marked vulnerability to adverse health outcomes. Frail older adults are less able to adapt to stressors such as acute illness or trauma than younger or non-frail older adults. We aimed to assess prevalence of frailty in elder people and it's relationship with other conditions in this study.

Methods: 1107 individuals ≥60 years of age admitted to Istanbul-Medical-School Geriatrics-outpatient clinic for the first time the period between 2013–2016 were enrolled to study. We used The International Association of Nutrition and Aging's FRAIL scale contains 5 simple questions to define frailty. Frail person was accepted as who gets ≥3 points in scale. Patients were asked about their fallings, urinary incontinence, chronic pain, sleep disorders, activities of daily living (ADL), instrumental activities of daily livin (IADL), cognitive status, number of illness and medication, postural instability and assessed about their nutritional status by Mini Nutritional Assessment (MNA).

Results: 1107 patients were analyzed with a geriatric assessment. The sample was composed of wome (66.8%) and me (33.2%) with mean age of 78.5±5.7 years. Prevalence of frailty was 16% (n=179). Frailty was found independently assosiated with ag (p=0.041), chronic pain (p=0.021), usual walking spee ($p<0.01$), malnutrition ($p<0.01$), IADL (p=0.024) respectively.

Conclusion: Frailty carries an increased risk for poor health outcomes, including fall, incident disability, hospitalization and mortality. Elucidating its etiology and natural history is therefore critical for identifying high-risk subsets and new arenas for frailty

prevention and treatment. An important strength of our study is assessment of chronic pain which is a new area of research in frailty concept. Our findings provides data on the significance of chronic pain and its association with frailty.

P-220
Frailty and muscle correlates in older people with diabetes: An MRI explorative study

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Introduction: Although diabetes is known as a frailty inducing disease the characteristics of sarcopenia within this group has not been extensively explored.
Method: Among participants of MID-Frail, one recruiting center volunteers underwent both brain and muscle MRI and functional assessments. Muscle areas and muscle magnetization transfer (MTR) were calculated in thigh and particularly in rectus femoris (RF). Grey matter volumes and muscle assessments relationships were described using positive and negative regressions (SPM software).
Results: Twenty-six subjects (7 female, mean age 78.2 y, SD 5.0), were explored in this sub-study. Among them 6 were frail and the others were prefrail. Total SPPB was positively related with maximal rectus femoris area. The sub-scores for walking and rising chair test were related to RF strength but not to RF area or MTR. Higher walking time was negatively associated with thalamus volume and higher score in chair rising test was positively associated with caudate nucleus area. MNA score was related to grey matter volume.
Conclusions: Frailty in older people is multifactorial and brain and muscle MRI correlates may improve our understanding of its different physical components.

P-221
Frailty-guided management model for severely frail older adults in an acute hospital setting

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Introduction: Frailty underpins every aspect of the care of an older person, from the goals of care to risk-benefits of interventions to function, discharge and mortality. We explore the use of a checklist of interventions to augment the medical management of older acute hospital patients with advanced frailty.
Methods: The Geriatric Frailty Unit (GFU) in our hospital was established to pilot care models for older patients with advanced frailty, as defined by a score of 7 or 8 on the Clinical Frailty Scale (CFS). We applied a package of 5 core interventions – Listening Clinic, Care Needs Assessment, Medication Review, Diet Review and Future Care Planning – on top of usual management of the medical conditions they had been admitted for.
Results: Data had been collected on 60 patients at time of writing. 85% of patients or surrogates attended the Listening Clinic, where a Preferred Plan of Care (PPC) discussion was offered to 52% and taken up by 32%. 41% of patients had their medication list reduced, 17% had their dietary restrictions liberalised and 19% had their follow-up appointments reduced. Qualitative feedback showed almost universal caregiver and staff satisfaction.
Conclusion: A package of interventions applied as an overlay to usual medical management of older patients with advanced frailty had meaningful effects on streamlining their care and reducing burdensome treatments that were no longer beneficial at this stage of their life journey. We look forward to further refining the interventions and extending this model to patients admitted under other departments. We also anticipate designing such overlays tailored to the needs of patients at other stages of the frailty spectrum, such as the robust and pre-frail, to complement usual medical care.

P-222
French version of the SARC-F questionnaire: translation and language validation

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Objectives: To obtain a valid translation of the SARC-F questionnaire (giving a predictive symptom score for sarcopenic subjects).
Methods: A global methodology developed by the EUGMS sarcopenia interest group (SIG) regarding the translations of the SARC-F questionnaire has been followed. The English original version of the SARC-F has first been translated in French by a bilingual expert and then, back translated by another bilingual expert. An expert panel has been established in order to identify and resolve any issues during the process of translation. The translated version has been pre-tested on 10 sarcopenic subjects and validated (inter-rater reliability and test-retest reliability) on 20 other sarcopenic subjects. Sarcopenic subjects have been identified from the SarcoPhAge study (Belgium) and diagnosed according to the EWGSOP diagnosis criteria.
Results: The translation from English to French has been performed without any difficulties. No amendment has been made to the questionnaire following the pre-test (10 sarcopenic subjects, 5 men and 5 women, mean age of 72.5±4.79 years). The French version of the SARC-F demonstrated an excellent inter-rater reliability with an ICC of 0.90, CI 95% (0.76–0.96) (20 sarcopenic subjects, 9 women, 11 men, mean age of 75.2±5.02 years) as well as an excellent test-retest reliability after a two-week interval with an ICC of 0.86, 95% CI: (0.66–0.94) (20 sarcopenic subjects, 15 women, 5 men, mean age of 77.0±6.57 years).
Conclusions: The French version of the SARC-F questionnaire is now available. The clinical validation of this translated tool (sensitivity, specificity, VPN, VPP in order to predict sarcopenia) is currently in process. The language validation studies are in progress in 13 other European languages.

P-223
Handgrip strength as a predictor of functional recovery in elderly patients with hip fracture

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Introduction: Functional recovery is one of the main purposes on hip fracture patients. The objective of this study was to describe the role of grip strength in predicting the short-term functional recovery after hip fracture.
Methods: Prospective six-month follow up study. Patients aged >65 with hip fracture (September 2015-August 2016). Variables: Functional assessment (Barthel index-BI-, Functional ambulation

classification-FAC-, Lawton index-LI-), Comorbidit (CIRS-G), Vitamin D (VitD), nutritional status (Body mass index-BMI-, Mini Nutritional Assessment-MNA-SF-), handgrip strength (Jamar's dynamometer; cut points for dynapenia=men<30kg, women<20kg, and dynapenia_med -according to median values- =men≤16.5kg, women≤11.5kg). Functional recovery was assessed by the following formula: (6-month_Barthel – baseline_Barthel)*100/baseline_Barthel. Successful recovery >-25%. Binary logistic regression analysis was performed.
Results: 146 patients were included; age 85±7.1, women 76.7%. CIRS-G 13 (IQR=10–16). Baseline-BI 90 (IQR=75–95), 6-month-BI 78 (IQR=62–95), moderate-severe cognitive impairment 17.1%. Handgrip strength: women 11.6 (IQR=8–15), men 16.9 (IQR=10–22). Dynapenia 93.8%, Dynapenia_med 47.9%. Successful recovery 56.8%. 6-month-mortality 11%. On univariate analysis age≤85, FAC>4, normal-mild cognitive impairment, LI>4, lower number of drugs, non- dynapenia_med, and rehabilitation in the Geriatric Day Hospital were significantly associated with successful recovery. In multivariate analysis the only independent predictors were non-dynapenia_med (OR: 2.37; 95%CI; 1.09–5.15; p=0,030), and normal-mild cognitive impairment (OR: 3.14; 95%CI; 1.13–8.69; p=0.027). VitD ≥20ng/mL showed a non-significant tendency. There was no association with nutritional status.
Conclusions: There is a high prevalence of dynapenia in hip fracture patients. Successful functional recovery at 6 month following hip fracture was associated with non-dynapenia (using cut points according to median for our sample) and better cognitive status.

P-224
Health-related quality of life in sarcopenia: Translation and validation of the Czech version of the SarQoL® instrument

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Background: Sarcopenia is increasingly recognized in clinical practice. Defined as decreased muscle mass and function sarcopenia is associated with negative health outcomes and decreased quality of life. Recently sarcopenia-specific quality of life questionnaire SarQoL® has been developed and validated in English. Sarqol® includes 7 major domains: Physical and Mental Health, Locomotion, Body Composition, Functionality, ADLs, Leisure activities and Fears. The aim of the study was to translate and validate SarQoL® for the Czech language.
Methods: Translation and cross-cultural adaptation followed the recommended protocol in 5 steps: original translation by 2 translators, synthesis, backtranslation, expert review and piloting the pre-final version with sarcopenic subjects for understanding and feasibility. Further, SarQoL® discriminative power was assessed comparing sores of sarcopenic and non-sarcopenic individuals and its convergent validity evaluated estimating SarQoL® correlations between physical functioning subscore of SF-36 questionnaire.
Results: The final version of SarQol® in Czech language is available on www.sarqol.org. In total 99 subjects (16 males, 83 females), mean age 81.39±6.2yrs from two sites (VFN Prague, Silesian Hospital Opava) were included in validation study. The overal SarQoL® score in sarcopenic (FNIH-defined) subjects N=73 was 61.6±2.7 compared to 26 nonsarcopenic subjects 74.8±4.8 (p<0.05). The SarQoL® scores correlated with SF-36 total and physical functioning subscore (Spearman's correlation good and very good, respectively).
Conclusion: The Czech version of SarQol® is available for public use. The preliminary results show good discriminative power and construct validity. However, the validation project is still ongoing to test the internal consistency and reliability before SarQol® full clinical use.

P-225
Hip fracture in the very elderly: Description and characteristics of the HIPA study

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Aim: Determine differences of physical performance and the variable that are related in the very old that are independent for activities of daily living with hip fracture after surgery.
Materials and methods: Prospective study. Included patients ≥70 years admitted at the Monte Naranco Hospital's Orthogeriatric Unit. They had a Barthel Index (BI)≥80, without history of cognitive impairment, low comorbility (Charlson Index (CI)≤2), without frailty criteria (Frail Index (FI) ≤2. Assessesment made by a geriatrician during admission and 3 months after. Main variables included: physical impairment, frailty, physical performance using BI, Lawton Index (LI), FI and Short Physical Performance Battery (SPPB). We analyzed using Welch-test Man-Whitney, Kruskal Wallis, Chi2, and logistic regression.
Results: 61 patients from 100 included. Mean age 82.56±6.25; women 85.2%; BI 97.13±5.20; LI 6.58±2.02 women, 4.55±1.61 men; CI 0.59±0.72; surgical wait time 5.07±21.36 days; Rehabilitation wait time 2.5±1.61 days; hospital stay 14.51±3.01 days. Type of surgery: Osteosynthesis 60.65%. Frail Index: Robust 57.4%, prefrail 42.6%. Mean SPPB 5.49±2.63. Two patients within a same group age with functional impairment (LI) have a 48.92 increase risk of having a SPPB ≤6 (IC=7.71–310.53;p<0.001). Patients 80 years and older with hip fracture have a 7.29 increase risk of having a SPPB ≤6 (IC=2.17–24.41; p=0.01). Worsening in FI group is associated in a 8.15 increase risk of having a SPPB ≤6 (IC=1.308–50.806;p=0.025).
Conclusion: Patients with hip fracture and previous good functional performance will have a physical performance with a moderate physical impairment. This limitation is related with age, frailty and functional impairment.

P-226
Implementation of routine grip strength measurement among older inpatients on admission to hospital: identifying facilitators and barriers using normalisation process theory (NPT)

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Background: Low grip strength in older inpatients is associated with sarcopenia, longer length of hospital stay, increased functional limitations and mortality. Measuring grip strength is simple, often used in research but not in routine clinical practice. This study evaluated the feasibility and acceptability of implementing grip strength measurement into routine clinical practice.
Methods and design: This study was conducted in five acute medical wards for older people in one UK hospital. Intervention design and implementation evaluation were based on Normalization Process Theory (NPT). The training program was developed to teach ward staff to measure grip strength. A mixed methods design assessed adoption, coverage, acceptability and basic costs of grip strength measurement implementation.
Results: 155 staff were trained to measure grip strength. 81% of female patients had low grip strength <16 kg (median 11kg) and 75% of male patients had low grip strength <27 kg (median 20kg). Adoption and the average weekly coverage of grip strength measurement varied between 25% and 80% across the 5 wards. Using

NPT, implementation enablers identified included motivated ward champions, managerial support, engagement strategies, and staff shared-commitment. High turnover of staff and champions, lack of managerial buy-in and staff commitment were the main barriers to successful implementation. Both staff and patients found the grip strength test easy and potentially beneficial. The total cost was < £ 3800.
Conclusions: It was feasible, cheap and acceptable to train 155 staff to routinely measure grip strength. Most patients had low grip strength and were at high risk of sarcopenia and poor healthcare outcomes.

P-227
Improving and maintaining the assessment and documentation of the Clinical Frailty Scale score in an acute hospital setting. A multiple cycle quality improvement project

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Introduction: The prevalence of frailty in the UK is increasing. Clinical frailty is associated with increasing morbidity, mortality and length of hospitalisation. The Rockwood Clinical Frailty Scale (CFS) score is a validated tool used to identify clinical frailty, enabling risk stratification and advanced care planning. Broomfield Hospital, Essex, UK, started using the CFS score after initial audits revealed poor documentation of clinical frailty. The CFS score was subsequently introduced on Electronic Discharge Letters (EDLs) to highlight frail patients to GPs. Consecutive Quality Improvement Project cycles incorporated interventions aimed at improving this communication.
Methods: A retrospective review of randomly selected EDLs (n=369) for patients aged >75 conducted between June 2015–March 2017 assessed documentation of CFS scores. Cycle 1 introduced a frailty tab (a computerised Rockwood CFS) on the EDL. Cycle 2 focused on departmental and face-to-face education of medical staff and a desktop and paper simplified CFS score poster.
Results: Prior to intervention 0% (n=60) of EDLs had documented CFS scores (June 2015). Introducing the frailty tab improved documentation to 74% (n=60) (October 2015). 12 months after Cycle 1, CFS documentation was maintained at 75% (n=64) without further intervention. Following staff education and introduction of the poster, CFS documentation improved to 94% (n=185).
Conclusion: A simple electronic frailty tab in the EDL dramatically improved coding for clinical frailty in the hospital setting. However, departmental education further improved compliance to 94%. When implementing a system-wide change (such as the frailty tab), tailored educational programs should be used alongside such changes to ensure the best results.

P-228
Level of physical activity evaluated by accelerometry in older subjects from the SarcoPhAge study with or without muscle impairment

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Introduction: Our objective was to assess the relationship between muscle impairment and daily steps.
Methods: We investigated elders from the SarcoPhAge (Sarcopenia and Physical Impairment with Advancing Age) study. Three measurements were performed: muscle mass (using DEXA), muscle strength (using a dynamometer) and physical performance (with the Short Physical Performance Battery test). Using the cut-off limits proposed by the EWGSOP, women were classified in the "low muscle mass group" when their muscle mass value was <5.50kg/m^2, in the "low muscle strength group" when their strength was <20kg and in the "low physical performance group" when their SPPB ≤8 points. Respectively, the thresholds used for men were <7.26kg/m^2, <30kg and ≤8 points. The number of daily steps was evaluated, over a 7-day period, by a validated accelerometer.
Results: During one week, 174 subjects (74.7±5.7 years, 54.6% women) wore the accelerometer. In women, a correlation was found between daily steps and physical performance (r=0.24, p<0.05). However, no significant difference in the number of daily steps was reported in women with low muscle mass, low muscle strength, or poor physical performance compared to women with a better muscle status. In men, the number of daily steps was significantly correlated with physical performance and muscle strength (r=0.44 and r=0.26, p<0.05). Men with low strength and poor physical performance walked significantly less than men with good muscle function (4565 steps versus 6672 steps, p=0.004; 4198 steps versus 6554 steps, p=0.005). However, these relationships were no longer evident when adjusted for confounders (i.e., age, sex, number of comorbidities and number of drugs).
Conclusions: The muscle health status of older individuals does not seem to strongly influence their number of daily steps.

P-229
Long-term home-based physiotherapy for older people with signs of frailty - RCT (NCT02305433)

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Introduction: There is increasing need for new rehabilitation models to postpone disabilities and institutional care in older persons with signs of frailty. One alternative is home-based rehabilitation. We applied home-based physiotherapy with emphasis on functional exercises for 12 months with 12 months' registry follow-up.
Methods: Three hundred persons (>65 y) were recruited. Frailty was screened using Morley's FRAIL questionnaire and verified according to modified Fried's criteria. Persons were randomized to a physiotherapy and a usual care arm. The primary outcome is duration of living at home during 24 months. Secondary outcomes include physical functioning (assessed by SPPB, FIM, IADL), health-related quality of life (15D), frailty status, use and costs of health and social services (registry information during 24 months), falls, and mortality. A physiotherapist performs assessments at the participant's home at baseline, 3, 6 and 12 months. MMSE, GDS-15, MNA and SPS are also assessed. Physiotherapy (60 minutes 2 times weekly) is based on Otago method, and includes exercises for strength, muscle endurance, balance and flexibility.
Results: Twelve-month assessments will be completed in August 2017. At baseline the mean age was 82 y, 75% were women, and 61% were pre-frail (scored 1–2 points). Mean (SD) SPPB was 6.2 (2.6), FIM 108.8 (10.6), 15D 27.1 (5.1), MMSE 24.4 (3.1), GDS-15 4.8 (2.7), and MNA 23.0 (3.2) points.
Conclusions: Our trial will provide new knowledge whether long-term home-based physiotherapy improves physical functioning to postpone institutional care in persons with signs of frailty. - Supported by Social Insurance Institution

P-230
Muscle mass adjusted for body mass index reveals better efficacy in relation of sarcopenia with functional measures

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Objective: The prevalence of sarcopenia differs according to its adopted definition. Hereby, we aimed to examine which Low Muscle Mass (LMM) adjustment method reveals better efficacy in relation to its functional outcomes.
Methods: Community-dwelling older adults 60–99 years of age were included. Body composition was assessed with bioimpedance analysis. LMM was evaluated according to our national data. Muscle strength was assessed by measuring hand grip strength (HGS) with a Jamar hydraulic hand dynamometer. The relation of skeletal muscle mass index (SMMI) with hand grip strength, usual gait speed (UGS), activities of daily living (ADL), instrumental ADL (IADL) and frailty were examined between different adjustment methods.
Results: 1307 older adults (421 male, 886 female) were included. The prevalences of LMM were 2.1%, 47.2%, 63.4% and 21% and prevalences of sarcopenia were 1.3%, 23.9%, 35.2% and 13.2% with adjustments by height (H), weight (W), body mass index (BMIa) and BMIb, respectively. HGS was correlated with all SMMIs, most being adjusted with the BMI (H, r=0.286; W, r=0.298; BMI, r=0.548, $p<0.001$). UGS was not correlated with LMM adjusted by H (p=0.267) but with W (r=0.077, p=0.009) and BMI (r=0.223, $p<0.001$). ADL was not correlated with LMM adjusted by H (p=0.71) but with W (p=0.008) and BMI ($p<0.001$). IADL was not correlated with LMM adjusted by H (p=0.49) but with W (p=0.045) and BMI (p=0.026).
Conclusions: The prevalences of LMM and sarcopenia change significantly between SMM adjustment methods. Muscle mass adjustment with BMI proves better relation with functional associations of sarcopenia.

P-231
Newly suggested definition of cognitive frailty for epidemiologic study

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A concept of "cognitive frailty" has recently been proposed by an (I.A.N.A./I.A.G.G.) International Consensus Group. The group suggested that "cognitive frailty" means a clinical condition characterized by the simultaneous presence of both physical frailty and cognitive impairment, occurring in the absence of overt dementia diagnosis. (I.A.N.A./I.A.G.G.) International Consensus Group defined cognitive frailty as follows: 1) presence of physical frailty and cognitive impairment (CDR=0.5); and 2) exclusion of concurrent dementia. By the way, CDR is not frequently available in epidemiologic studies and what can be an alternative to CDR=0.5? How can we exclude the demented in a condition dementia specialists or neuropsychologists are not available in epidemiology studies? According to the International Working Group on MCI, MCI was operationalized as 1.5 standard deviations below that of age appropriate norms in one or more cognitive domains. The revised criteria for AD dementia, which are comparable to widely used criteria for dementia of the Alzheimer type (DAT), stipulate that impairment must be present in two or more cognitive domains and must interfere with the ability to function in usual activities. Putting these things together, we suggest a new alternative definition of cognitive frailty for epidemiologic studies as follows;1) physical frailty and2) any cognitive function test <1.5 SD of the age-, gender-, education adjusted norm (for example, verbal learning test, Digit Span, Boston Naming Test, Trail Making Test, and Frontal Assessment Battery) and3) no dependency in IAD (especially, managing money, telephone use, responsibility for medication, and shopping, etc)

P-232
One-year change in weight, muscle strength, walking speed, walking endurance, and physical activity in older adults

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Objectives: The normal course of aging affects musculoskeletal system, and as a result plays an important role in reducing the mobility observed in later life. Frailty is a common clinical syndrome in older adults with increased risk for poor health outcomes including falls, impairment, hospitalization and mortality. In the absence of consensus, the frailty syndrome requires at least three of the following five characteristics: unintentional weight loss, muscle weakness, low walking speed, poor endurance, and low physical activity. Here, we report one-year change in these domains in older adults.
Methods: Participants aged older than 50 years were included in this cohort study. The participants were assessed baseline and after one year regarding to weight, muscle strength, walking speed, endurance, and physical activity with appropriate measures including, a hand-held dynamometer, 10-MeterWalk Test, Six-Minute Walk Test, and Rapid Assessment of Physical Activity Questionnaire.
Results: Thirty-five 35 of 94 participants assessed in the baseline were re-assessed after one year. There was a significant decrease in walking speed, muscle strength, and physical activity level ($p<0.05$), whereas there was no significant difference in weight and walking endurance ($p>0.05$).
Conclusion: This study suggests that the relevant physiological variables are changing in favor of frailty syndrome even within a year. It seems that regular assessment of the frailty syndrome is an important issue to plan the appropriate treatment interventions and improve rehabilitation outcomes.

P-233
Osteoporotic fractures in geriatrics

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Aim: To present an overview of the physiological process and treatment of osteoporosis.
Method: A search for the relevant articles was conducted on PubMed and Google Scholar using the terms 'falls', 'osteoporosis', 'fractures' and 'elderly'. A literature review was compiled.
Results: Osteoporosis is a systemic progressive disease characterised by a decrease in bone mass per unit volume enhancing susceptibility to fractures on minor trauma [1]. The pathophysiology of osteoporosis is multifactorial involving cytokines in combination with genetic and environmental influences [2,3]. Osteoporotic patients are on the increase as a result of an improved life expectancy and decreased physical activity [4]. Locally, the commonest risk factor is menopause (83%) followed by a sedentary lifestyle (58%) and a family history (30%). Metabolic bone diseases may occur secondary to co-morbidities or pharmacological therapy [5,6]. With increasing age, females lose more bone mass (35–50% trabecular bone; 25–30% cortical bone) compared to males (15–45% trabecular bone; 5–15% cortical bone) resulting in increase in the incidence of fractures [7]. Femoral neck fractures have the most severe repercussion as 20% die within a year, 40% incapable to carry out activities of daily living, 20% bedridden whilst 25% require institutionalisation [4,8]. The commonest treatment prescribed locally is

bisphosphonates and calcium supplements [5]. Novel pharmacological therapies targeting osteoporosis from its molecular levels are developed [4,9]. Assessment of the patient's risk of falls combined with non-pharmacological therapy are crucial adjuncts especially in the elderly population [7].

Conclusion: Osteoporosis is a major clinical problem in geriatrics. It increases morbidity and mortality, reduces the patient's quality of life and creates an economic burden.

References:

[1] World health organisation, World Health Organ Tech Rep Ser. 1994;843:1–129
[2] Brincat SD, Borg M, Camilleri G et al. Minerva Ginecol. 2014; 66(4):391–407
[3] Salari P, Abdollahi M. Int. J. Pharm. 2011;7(5):552–567
[4] Baqir W, Copeland C. The Pharmaceutical Journal. 2010; 284: 345–346
[5] Fenech J, Galea R, Serracino-Inglott A et al. Journal of Applied Therapeutic Research 2011;8:101–106
[6] Le Templier G, Rodger MA. Curr Opin Pulm Med. 2008;14(5) :403–7
[7] Francis RM. Age and Ageing 2001;30-S4:25–28
[8] Mayes SL. Nutr Clin Pract. 2007;22(3):276–2859. Cole Z, Dennison E, Cooper C. Br Med Bull. 2008; 86:129–143

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Physical activity, frailty and elderly: Prospective and observational study over a period of 3 months. Preliminary results

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Background: In their privileged relationship and repeated contact with the elderly, general practitioners should be the first line of defense for the early identification of fraily. This would allow a reversal of the frail state if appropriate management strategies are in place, including counseling for physical activity adapted to the condition of the elderly.

Methods: This is a prospective study conducted in a general practice in Chaumont, France. It took place during the period from 1 February 2016 to 30 April 2016 inclusive. The inclusion criterion was to be age 65 years or more at the primary care office visit.

Results: Forty-four patients were included, 26 of whom were female (59.10%); they had a mean age of 75 years, an average Charlson score of 2.8, an average MMS of 25.4, an average IADL of 6.7, and an average ADL of 5.8. Sixteen of the subjects (36.36%) were accompanied during their medical visit to the doctor. For 25% of the patients, the reason for the visit was a single medical consultation; for 57%, the visit was a follow-up. We noted 21 patients (47.73%) who had a manual occupation. Sixteen smoked (36.36%), and 30 said they drink alcohol moderately (68.18%). Arthritic diseases, cardiovascular history (primarily high blood pressure), and lung disease were the conditions most frequently encountered in the patients' medical histories. Malnutrition was found by the BMI for 11 patients (25.00%), by the MNA for six patients (13.64%), and by albumin levels for three patients); the mean albumin level was 38.4 g/l. We noted weakness among the subjects on the SEGA scale for seven patients (15.91%) and according to the Fried scale for 25 patients (56.82%). According to the Ricci–Gagnon scale, 10 patients (22.73%) were considered inactive; the average Ricci–Gagnon score was 22.6. The monopodal support test found pathology in 18 patients; two patients had a Get-Up and-Go Test result of greater than 20 s (4.55%). Anemia was present in one patient (2.33%) (One patient had missing data); whereas a vitamin D deficiency was present in 34 patients (85.00%). Among the subjects, six patients (13.64%) practiced a team sport. We did not find a correlation between the SEGA fragility score and the Ricci–Gagnon physical activity (p=0.68), but a slight correlation was found between the Fried fragility score and Ricci–Gagnon physical activity (p=0.092); this may be explained by the small sample size. We found a slight correlation between the SEGA fragility score and the monopodal support pathology test result (p=0.083) as well as between the Fried fragility score and the monopodal support pathology test result, close to significance (p=0.06). No correlation was found between the SEGA fragility score and Get-Up-and-Go Test result >20 s (p=0.17) nor between the Fried score and a Get-Up-and-Go Test result >20 s (p=0.2), nor even between the SEGA score and team sport participation (p=0.25) nor between the Fried score and team sport participation (p=0.6). We did not find a correlation between SEGA fragility and malnutrition according to the BMI (p=0.47), whereas we did find a significant link between Fried fragility and malnutrition according to the BMI (p=0.02). We found a significant link between the Fried score and malnutrition according to the MNA (p=0.02), but not between SEGA and malnutrition according to the MNA (p=0.21). We did not find a significant relationship between the SEGA score and malnutrition according to albumin level (p=0.002), but not between the Fried score and malnutrition according to albumin level (p=0.1). No significant associations were found between SEGA and vitamin D (p=0.26), nor for the Fried score with vitamin D (p=0.68). Finally, we found a slightly significant link between the SEGA score and comorbidities according to the Charlson score (p=0.07) and a significant association between the Fried score and comorbidities according to the Charlson score (p=0.05). We studied the physical activity by Ricci–Gagnon score, and we found significant links between inactive character according to the Ricci–Gagnon scale and the monopodal support pathology test (p=0.014), a Get-Up-and-Go Test result above 20 s (p=0.0076), malnutrition according to the MNA (p=0.0057), and the Charlson comorbidity score (p=0.027), as well as a marginally significant correlation with age, this most likely associated with a lack of power (p=0.06). We did not find any significant correlation with the team sport participation item (p=0.15), malnutrition according to BMI (p=0.68), malnutrition according to albumin level (p=0.3), or vitamin D deficiency (p=0.61), and MMS level (p=0,4).

Discussion: It is recognized that physical activity helps curb the development of frailty in the elderly. A literature review published in 2013 explored the contribution of physical activity to several parameters associated with frailty in the elderly. In this work, Cadore et al. (1) included 20 randomized controlled trials and cited the beneficial effect of physical activity; decreased fall incidence (based on 7 studies), improved rapid walking (for 6 studies), improved balance (based on 10 studies), and increased muscle strength (based on 10 studies). In our present study, we evaluated physical activity using the Ricci-Gagnon questionnaire. To our knowledge, there have been no previous studies looking for a correlation between the level of physical activity assessed by this score and the presence of frailty according to Fried and SEGAm criteria.

Conclusion: Our study could serve as a pilot for other large-scale trials in order to establish a significant correlation between these two parameters, allowing the validation of this simple and rapid questionnaire and its use by the general practitioner to track and monitor the condition Frailty of elderly patients.

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Postural muscles weakness in older adults with fall history: A neural or a muscular deficit?

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Introduction: The decline in torque production of postural muscles

during aging is considered as a key factor in the risk of falling. Recent works showed that the maximal torque of plantar flexor muscles (PF) was lower in older adults with recent fall history (OF) than in older non-fallers (ONF). The present study aimed to investigate the neural and muscular factors associated with the lower maximal PF torque production in OF.
Methods: Fifteen young adults (YA) (22±4 years), 15 OF (84±4 years) and 15 ONF (83±4 years) were included in this study. Torque and electromyographic activity of soleus, gastrocnemii and tibialis anterior (TA coactivation) muscles were recorded during maximal voluntary contractions of the PF. Electrical nerve stimulation was used to assess the voluntary activation level (neural factor) during maximal plantar-flexion and the muscle contractile properties (twitch torque at rest, muscular factor).
Results: The maximal PF torque was lower ($P<0.05$) for OF (51±12 Nm) than ONF (70±15 Nm) and YA (119±40 Nm). The voluntary activation level was lower ($P<0.05$) for OF (73±18%) than ONF (82±19%) and YA (90±14%). A similar trend was observed for the maximal PF electromyographic activity. No difference in TA coactivation was reported among the three groups. While age affected the contractile properties of ankle muscles ($P<0.001$), no difference was observed between ONF (13±3 Nm) and OF (12±3 Nm).
Conclusions: These results suggest that the alteration of muscle force production observed in OF could be mainly related to a deficit in muscle activation rather than reduced muscle contractile properties.

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Prevalence and predictive value of pre-therapeutic sarcopenia in cancer patients: A systematic review

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Background: To assess the prevalence of sarcopenia before cancer treatment and its predictive value during the treatment.
Methods: We searched MEDLINE via PubMed for articles published from 2008 to 2016 that reported prospective observational or interventional studies of the prevalence of pre-therapeutic sarcopenia and its consequences in adults with cancer who were 18 years or older. Two independent reviewers selected articles based on titles and/or abstracts before a complete review. Sarcopenia had to be measured before cancer treatment. Methods recommended by consensuses (CT scan, MRI, dual X-ray absorptiometry or bio-impedancemetry) to assess sarcopenia were considered. Characteristics of the studies included the prevalence of pre-therapeutic sarcopenia and the prognostic value for outcomes during the cancer treatment.
Results: We selected 35 articles involving 6,894 participants (in/outpatients, clinical trials). The mean age ranged from 53 to 69.6 years. Pre-therapeutic sarcopenia was found in 38.6% of patients [95% CI: 37.4–39.8]. Oesophageal and small-cell lung cancers showed the highest prevalence of pre-therapeutic sarcopenia. Pre-therapeutic sarcopenia was significantly and independently associated with post-operative complications, chemotherapy-induced toxicity and poor survival in cancer patients.
Conclusions: Pre-therapeutic sarcopenia is highly prevalent in cancer patients and has severe consequences for outcomes of cancer patients.

P-237
Prevalence of frailty in two Finnish cohorts born 10 years apart before and after Second World War

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Introduction: Frailty is a state of vulnerability as a result of decline in various physiological systems leading to impaired ability to adapt to external stressors and increased risk of adverse outcomes. Little data exist about secular trends of frailty. We aimed to investigate community- dwelling cohorts in relation to frailty. Participants were born in 1935, before World War II, and after it in 1945, and living in Oulu.
Methods: Participants born in 1935 (Oulu35, N=593) and in 1945 (Oulu45, N=708) were examined with identical methods at the age of about 70 years. Frailty was measured using modified Fried frailty phenotype (FF), Morley Frail Scale (FS) and by a 70- item Frailty index (FI). FI -cut point was 0.21. Logistic regressions were made for associations with marital status, economical satisfaction, education and sex.
Results: The mean age in Oulu35 was 72 and of Oulu45 69 years. Prevalence of frailty using FI was 30% in Oulu35 and 17.2% in Oulu45, using FS or FF, they varied from 1.3% to 4.5%. Prevalences of prefrailty and frailty combined using FF were was 45.3% in Oulu35 and 32.2% in Oulu45, using FS 38% and 25.9%, respectively. Frailty was associated to with unsatisfying economical status, ORs 2.5 (1.2–5.0) in Oulu35 and 5.9 (2.5–14.1) in Oulu45.
Conclusions: Different frailty instruments detect frailty in different ways. Prevalences of frailty were was lower in Oulu45 than in Oulu35. Oulu35 participants were older, they lived their childhood in wartime which may have influenced their health. Low economical status was associated with frailty.

P-238
Prevalence of sarcopenia and factors related to sarcopenia in the community-dwelling elderly

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Aim: The aim of this study is to determine sarcopenia prevalence and affecting factors in Bornova district of Izmir aged 65 years and older people.
Method: The population of this cross-sectional study is 28,323 people aged 65 years and older living in centre of Bornova district, Izmir. Minimum sample size was calculated by assuming sarcopenia prevalence is 10% with 2% error and %95 confidence limit. Twenty percent of this minimum sample size was added for nonresponse. 1007 individuals were targeted to reach. The dependent variable is having sarcopenia and diagnosis was made on the basis of EWGSOP algorithm. Independent variables were sociodemographic and economic features, healthy life behaviours, condition. Data were collected by interviewers at home with face-to-face interview, analysed using chi-square and logistic regression analysis.
Results: The response rate was 90.3%. Mean age is 72.8±6.2,60.2% were female. The prevalence of sarcopenia is 5.2% (3.0% in 65–74

years, 8.6% in 75–84 years and 21.9% in 85 years and older). The prevalence of having low gait speed is 41.0%, low grip strength 57.0%, low calf circumference 6.1%. The prevalence having both low gait speed and low grip strength 14.3%. Increase in age (OR 1.084, p=0.007), physical inactivity (OR=3.924, p=0.017), BMI (OR=29.118, p<0.001) and having malnutrition risk or malnutrition (OR=7.950, p<0.001) increases sarcopenia risk.
In conclusion prevalence of sarcopenia is quite high in this population. Increase in age, physical inactivity, low BMI, having malnutrition risk or malnutrition are risk factors for having sarcopenia.

P-239
Prevalence of sarcopenia in a Danish geriatric out-patient population

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Introduction: Using the European Working Group on Sarcopenia (EWGSOP) criterias on a geriatric outpatient-population the aim was to assess the prevalence of sarcopenia and to describe the association between sarcopenia and age, gender, body-mass index (BMI).
Methods: Patients referred to a geriatric outpatient-clinic were assessed and classified accordingly EWGSOPs recommendations. Assessment included Dual Energy X-ray absorptiometry (appendicular skeletal muscle mass (ASM)), Hand-grip strength (HGS), 10-meter Walk (GS). Cutoff points: Skeletal Muscle Mass Index (SMI) ASM/height2 (kg/m^2). Cutoff men <7.23 kg/m^2, women <5.67 kg/m^2. HGS men <30 kg, women <20 kg, GS <0.8 m/s. Patients were classified: No sarcopenia (normal SMI), presarcopenia (reduced SMI, normal HGS and GS), sarcopenia (reduced SMI and reduced HGS or GS) or severe sarcopenia (reduced SMI, HGS and GS).
Results: 189 patients were screened for inclusion; 80 were included. 12 (15%) had severe sarcopenia, 9 (11%) had sarcopenia, 8 (10%) had presarcopenia and 51 (62%) did not have sarcopenia. Comparing the groups mean age was significantly higher in the sarcopenic group (sarcopenia and severe sarcopenia) than in the non sarcopenic group (presarcopenia and no sarcopenia), (p:000.9). The nutritional status was significantly poorer in the sarcopenic group (p: <0001). No difference was found in gender distribution (p: 0.729).
Conclusions: Prevalence of sarcopenia was 26% in our study highligthing that this condition in common in a geriatric outpatient population. Assessment using the EWGSOP diagnostic method was feasible and is suggested to be part of the standard clinical comprehensive geriatric assessment.

P-240
Prevalence of sarcopenia in very old patients hospitalized in a geriatric ward

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Introduction: Few studies have described the prevalence of sarcopenia in hospitalized patients. The aim of this study was to measure the prevalence of sarcopenia in very old patients admitted to a geriatric acute care ward.
Methods: Prospective, observational study of all patients admitted to a single Geriatric Acute Unit in a three months period. Sarcopenia was diagnosed by the presence of low muscle mass (measured with bioimpedanciometry using Janssen's equation) plus low muscle strength (measured with a Jamar dynamometer). Sociodemographic, functional, anthropometric and clinical variables were recorded. The sarcopenic group was compared to the non-sarcopenic group.
Results: 81 patients were included (60% women, mean age 93±4 years). Mean length of stay 7±5 days. In-hospital mortality 7%. The prevalence of sarcopenia prevalence on admission was 67%. There were more women in the sarcopenic group (74% vs 26%, p<0.01), we found no difference in any other characteristic. Some 30% of those with sarcopenia were institutionalized, 41% lived at home with a caregiver. 31% were unable to walk, 69% were dependent for at least one BADL and 52% were malnourished (MNA≤7) but almost half had a BMI>28. 54% had dementia, most frequent cause of admission was an infection (72%).
Conclusions: The prevalence in sarcopenia in acute geriatric care was 67%, with a higher prevalence in women. Sarcopenic patients did not significantly differ from non-sarcopenic patients in other characteristics.

P-241
Relation of CT-scan muscle mass to iliopsoas hematoma in patients treated with anticoagulant? Preliminary results

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Introduction: Iliopsoas hematomas (IPH) represent a classic and life threatening anticoagulation-related complication in elderly patients. Despite its localization, muscle assessment is not considered in haemorragic risk assessment. We hypothesized that muscular mass was inversely associated with IPH.
Methods: Retrospective study from 2000 to 2017 in 4 geriatrics acute wards. Data were obtained from medical charts. Inclusion criteria: patients treated with anticoagulant and anticoagulation-related spontaneous IPH confirmed by CT-scan. Controls without anticoagulation-related spontaneous IPH were matched for age and anticoagulant, and explored by CT-scan. Main criteria was iliopsoas muscle surface (IPMS) measured by CT-scan on contralateral psoas. Secondary criteria included fat involution of psoas.
Results: There are preliminary results, including 22 cases with anticoagulation-related spontaneous IPH (age 85±6 y/o, sex.ratio 1:1, anticoagulant 100%, transfusion 89%, albumin 29±5 g/L). History was dementia (33%), hypertension (50%), atrial fibrillation (67%), coronary artery disease (33%), and treatments VKA (60%), DOA (5%), heparin (60%) and antiplatelet therapy (29%). CT-scan analysis showed an IPH hematoma size of 2005±1010 mm^3. The mean IPMS of cases vs controls was respectively 938±244 vs 914±308 mm^3, (p=0.55). Other parameters are being analysed and will be available for the EUGMS congress.
Conclusion: The CT-scan muscle mass assessment is a feasible tool to evaluate muscle mass in patients treated with anticoagulant. From our preliminary results, IPMS is not associated with risk of IPH, and the role of muscle assessment to evaluate haemorrhagic risk in elderly patients treated with anticoagulant is questionable. Further analysis must be provided to confirm our hypothesis.

P-242
Relationship between hearing impairment and frailty in older patients with diabetes mellitus

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Objective: Hearing impairment, diabetes, and frailty are three conditions that are increasingly prevalent in older people. Recently, the assessment of frailty has been recommended for older patients with diabetes mellitus. However, the relation between hearing impairment and frailty is still unclear in patients with diabetes. The purpose of this study was to clarify the relationship between hearing impairment and frailty among older diabetes patients.
Research design and methods: We used a finger friction test as a simple auditory screening for the assessment of hearing impairment and the Kihon Checklist (KCL) for the assessment of frailty. Cognitive function was assessed using the Mini Mental State Examination (MMSE). Logistic regression analysis was used to investigate cross-sectional associations between frailty and patient characteristics.
Results: The study participants were 283 diabetes patients with an average age of 75.3 years; the prevalence of frailty using the KCL was 30%. Hearing impairment was present in 32.8% of those without frailty and 57.6% of those with frailty ($p<0.01$). In multivariable analysis, frailty in diabetes patients was associated with the prevalence of hearing impairment (odds ratio: 1.96, 95% confidence interval: 1.07–5.59).
Conclusions: These data suggest that hearing impairment as determined using a finger friction test could be an important factor contributing to frailty among diabetes patients.

P-243
Reliability of the sarcopenia screening test (SARC-F) in elderly patients

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Aim: The aim of this study was to investigate the presence of sarcopenia in the hospitalised geriatric patients and the role of following measurements for diagnosis: antropometric measurements, bioimpedance analyses, handgrip strength, 6 meter walk test, Barthel index and SARC-F scale.
Method: 116 hospitalised elderly patients in the internal medicine, cardiology, pulmonology and infectious disease clinics were followed. The patients were grouped according to the diagnostic criteria for EWGSOP. Age, gender, medical history, drugs, lenght of hospitalization, Barthel index, SARC-F scale were questioned and the anthropometric parameters were measured.
Results: 85 of 116 patients were mobile, whereas the other 31 patients were immobile. Sarcopenic patients were older than normal patients with statistical significance (p=0,001). Weight, BMI, circumference of hip, waist, upper-middle arm and calf were lower in sarcopenic patients. The handgrip strength of normal group was stronger (18.2±12 kg) than sarcopenic patients (13±9.1 kg) with statistical significance (p=0.018). Number of comorbidities and drugs were higher in normal group (p=0.034; p=0.024, respectively). SARC-F was positively correlated with age, length of hospitalisation, number of comorbidities and drugs, nutritional support, Barthel index and calf circumference and negatively correlated with walking speed, hand grip strength and fat free body mass. SARC-F scale results were 5.1±3.3 in normal group and 5.8±2.8 in sarcopenic group (p=0.24).
Discussion: SARC-F scale was not efficient for evaluation of sarcopenia in the hospitalised geriatric patients; but Barthel index, BIA, hand grip strength and walking speed were relevant with it.

P-244
Sarcopenia and sarcopenic obesity in Japanese geriatric ward

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Introduction: Sarcopenia is a syndrome characterized by progressive and generalized loss of skeletal muscle mass and strength. It is correlated with physical disability, poor quality of life. We evaluated the characteristics of sarcopenic elderly patients.
Methods: We analysed 117 patients discharged from the geriatric ward in the University of Tokyo Hospital, from April 2016 to March 2017. We divided them first into two categories; sarcopenia or non-sarcopenia. Secondly we also looked at the sarcopenic obese, sarcopenic non-obese, non-sarcopenic obese and non-sarcopenic non-obese group. In those groups, we assessed various characteristics such as age, sex, duration of hospitalization and comorbidities (hypertension, diabetes mellitus, dyslipidemia, cerebrovascular diseases, and cardiovascular diseases).
Results: After exclusions, we collected 117 patients (47 men and 70 women), aged 81 on average. Out of them, 72 sarcopenic (10 sarcopenic obese, 62 sarcopenic non-obese) and 45 non-sarcopenic (20 non-sarcopenic obese and 25 non-sarcopenic non-obese) patients were identified. No statistically significant differences were found between sarcopenic and non-sarcopenic patients as for age and sex. However, in sarcopenic patients, we detected longer hospitalization by approximately one week, and lower complication rates with diabetes mellitus or with cerebrovascular diseases compared to non-sarcopenic patients. Especially sarcopenic non-obese patients showed lower complication rates with diabetes mellitus.
Conclusions: In sarcopenic patients, we observed longer hospitalization and lower prevalence of diabetes or cerebrovascular diseases. We assume that sarcopenia itself can be the influential factor for longer hospitalization. And we suspect obesity has stronger relations with diabetes mellitus or cerebrovascular diseases than sarcopenia.

P-245
Self-assessed kyphosis and chewing disorders predict disability and mortality in community-dwelling older adults

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Background: Degenerative changes affecting the spine accumulate and contribute to an overall trend of kyphosis with increased age. Since there is no widely accepted definition of hyper-kyphosis, current estimates of the prevalence of this condition range between 20 to 40 percent among community-dwelling older people. Particularly, hyper-kyphosis is associated with several adverse health conditions including thoracic pain, decreased pulmonary function, limited physical functioning, increased fall risk, increased health-related quality-of-life, increased fractures, and increased mortality. There was no significant difference between depressive mood and kyphosis. However, it should be noted that these are studies of hyper-kyphosis and not of general kyphosis. Research questions: Our research questions focused on chewing power in common

health-related issues of older people caused by frailty. However, it is not a simple mechanism through which aging affects chewing power, unlike any other part of the human body. If tooth loss is not considered as an attribute of physiological aging, then aging per se may not be a risk factor for masticatory dysfunction. Chewing power, which is closely related to quality of life, is essential for maintenance of the activities of daily living in the elderly.

Research significance: Both these health issues (the presence of kyphosis or chewing disorders) are widely observed in aging people. These two adverse health outcomes are easily noticed even by older people themselves and by the others. Furthermore, these health issues are preventable through continued everyday health activities starting in late middle age.

Research objectives: Therefore, our study objectives were to clarify the following three research questions: (1) Is the existence of kyphosis or the decrease in chewing ability related to frailty without being affected by age or sex? (2) How much influence does the presence of kyphosis or chewing disorders have on the need for new coverage under long-term care insurance (LTCI) service requirement? (3) How much influence does the presence of kyphosis or chewing disorders have on predicting mortality?

Methods and design: A prospective cohort study.

Setting and participants: We analyzed the cohort data for older adults (65 years or older) from a prospective study in Kami town. The response rate was 94.3%, and we followed 5,094 older individuals for three years. Thus, we analyzed 5,083 older adults using Multiple imputation to manage missing data.

Outcome: The outcomes were mortality or new certifications for LTCI services in a 3-year period.

Measurements: We developed three groups by asking two self-reported questions on both "no kyphosis" and "good chewing ability". The groups were no kyphosis and good chewing ability (GG), kyphosis and poor chewing ability (BB), and kyphosis and good chewing ability or no kyphosis and poor chewing ability (GB/BG).<Results> The prevalence of BB, BG/GB, and GG were 8.9%, 40.3%, and 50.8%, respectively in our survey. During the 3-year follow-up period, 5.2% (n=262) died and 13.9% (n=708) individuals were newly certified as needing LTCI services. We confirmed that these results were consistent with the whole data analysis including missing data. Similar results were obtained for each frailty domain. First, those participants who agreed with the statement, "I don't think I have kyphosis" had significantly lower odds for having frailty (OR 0.41, 95% CI: 0.36–0.46). Similarly, those who had good chewing ability showed lower odds for frailty (OR 0.38, 95% CI: 0.32–0.44). When the two were analyzed at the same time, the GB/BG group (OR 0.40, 95% CI: 0.32–0.50) and the GG group (OR 0.16, 95% CI: 0.13–0.20) were less likely to be frail than the BB group. Second, as determined by multivariate analyses, BG/GB older adults (adjusted hazard ratio (HR) 1.33, 95% CI: 1.13–1.57) and BB older adults (adjusted HR 1.94, 95% CI: 1.54–2.44) had a significantly higher risk of needing LTCI services than GG older adults. Similarly, BG/GB older adults (adjusted HR 1.48, 95% CI: 1.12–1.96) and BB older adults (adjusted HR 2.27, 95% CI: 1.53–3.29) had a significantly higher risk of mortality than GG older adults did. The ORs and HRs were adjusted for age and sex.

Discussion: As our first of objective, we confirmed that prevalence of kyphosis and chewing disorders was relatively common among community-dwelling older Japanese adults. However, the prevalence of frailty in our study was slightly higher than other surveys. In previous studies, kyphosis or chewing disorders were known as a risk factor for frailty. However, we found that these two health issues were not only detrimental to health on their own, but had a more negative effect on frailty when combined. As second of objective, multivariate analyses demonstrated that kyphosis and chewing disorders were independently associated with mortality and new certifications for LTCI services. It is meaningful that these health issues are particularly easy to recognize by both oneself and others, and to use in self-reported questionnaires for community-dwelling older adults. Because these two health issues are easy to recognize by both oneself and others, these could be used as a marker in the high-risk approach and could be prevented by the population approach targeting the middle age.

Limitations: First, there is a possibility of underestimation or overestimation compared to the present situation, under the influence of individual personality characteristics, because this examination was self-reported. In this survey, we could not obtain the following: the degree of kyphosis, the presence or degree of pain in the back, the degree of chewing power, the difference of chewing power based on the type of food, and so on. Second, we were not able to identify whether related kyphosis or poor chewing power was the cause of mortality or new certifications for LTCI services. One of the aspects that future research should examine is how much effect kyphosis or chewing power had on mortality or new certifications for LTCI services.

Conclusion: The presence of kyphosis or poor chewing ability was related to mortality and new certifications for LTCI services, and we found an additive effect of these two factors related to frailty.

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P-246
Socioeconomic differences in frailty and frailty components among 26,014 Dutch citizens aged 55 years and older

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Introduction: Older persons with a low socioeconomic status (SES) are frailer and become frailer over time. Little is known about the association of SES with the frailty index (FI) and with its different components. Our aim was to examine socioeconomic differences in frailty and FI components and assess whether socioeconomic differences in number of morbidities can explain socioeconomic differences in other FI components.

Methods: This was a cross-sectional study of pooled data of 26,014 independently living persons in the Netherlands aged 55 years and older. Frailty was measured with a previously validated FI that consisted of 45 items. We selected six FI components based on previous literature: morbidities, activities of daily living (ADL), instrumental ADL (IADL), health-related quality of life (HRQoL), psychosocial health and self-rated health (SRH). SES was measured by education level and neighbourhood deprivation level. Multilevel linear regression models were fitted to assess the association of SES with frailty and with FI components.

Results: We found educational differences and to a lesser extent differences in neighbourhood deprivation level in frailty and

all FI components except ADL limitations, stronger associations were observed in younger ages. After adjusting for the number of morbidities, significant socioeconomic differences in the other FI components; IADL limitations, HRQoL, psychosocial health and SRH, reduced or disappeared.
Conclusions: There are significant socioeconomic differences in frailty and in FI components. Morbidities appear to play an important role in explaining socioeconomic differences in frailty at older age and should not be overlooked in prevention efforts.

P-247
Systematic review of non-pharmacological interventions to treat well-defined sarcopenia and physical frailty

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Introduction: Although exercise and nutritional interventions are recommended as first-line treatment to prevent or treat frailty and sarcopenia, most systematic reviews (SR) do not use standard definitions of the populations included in clinical trials. Following the ONTOP methodology, we did a review of SR, including primary studies of non-pharmacological interventions in older patients with physical frailty (defined by Fried's frailty phenotype) and sarcopenia (EWGSOP definition).
Methods: Pubmed, Cochrane, EMBASE, and CINHAL databases were searched looking for SR. All primary studies from those SRs evaluating any non-pharmacological intervention for physical frailty or sarcopenia in any setting were included. Quality assessment was made using Cochrane and GRADE criteria. A meta-analysis could not be performed due to the heterogeneity of the studies.
Results: Only 5 primary studies from 10 SR fulfilled the inclusion criteria. The most frequent interventions were physical exercise and nutritional supplementation. Muscle strength (except one study in frail subjects) and physical performance (except another study in frail people) improved with exercise and supplementation with amino acids in frail and sarcopenic older adults. The effects of these interventions on falls and ADLs were evaluated in two studies with opposite results. The overall quality of the evidence was low.
Conclusions: The only interventions studied for physical frailty and sarcopenia are exercise with or without nutritional supplements. Most of the studies in previous SR include non-frail or sarcopenic individuals. Interventions improve muscle strength and physical performance; there are no solid data on its effects on other health outcomes.

P-248
Targeting muscle to improve independence, quality of life and lower health care costs

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Introduction: Insight in muscle parameters that contribute most to negative health and economic outcomes could help clinicians with screening and targeted intervention.
Aim: To assess the association between muscle parameters and activities of daily living (ADL), quality of life (QoL) and health care costs.
Methods: The cross-sectional Maastricht Sarcopenia Study (MaSS) included community-dwelling adults ≥65 years (n=227). Muscle parameters were assessed by bio-electrical impedance, JAMAR hand-held dynamometer and the Short Physical Performance Battery. The Groningen Activity Restriction Scale (disability in ADL) and the EQ-5D-5L (QoL) were used to assess health outcomes. Data on health care use in the past three months were collected.
Results: Muscle strength and muscle function showed strong correlations with ADL function, QoL, and health care costs; no significant correlations were observed for muscle mass. Regression analyses showed that slower gait speed (OR 0.06, 95% CI: 0.01–0.55), slower chair stand (OR 1.23, 95% CI: 1.08–1.42), and more comorbidities (OR 1.48, 95% CI: 1.15–1.92) were explanatory factors for disability in ADL. Explanatory factors for QoL and health care costs were disability in ADL (OR 1.26, 95% CI: 1.12–1.41 for QoL; B =0.09, P<0.01 for costs) and comorbidities (OR 1.44, 95% CI: 1.14–1.82 for QoL; B=0.35, P<0.01 for costs).
Conclusions: Muscle function and comorbidities were associated with disability in ADL. Disability in ADL and comorbidities were associated with QoL and costs. This suggests that muscle function and ADL may be important targets for research and intervention in order to improve health and economic outcomes.

P-249
The assessment of the frailty in a geriatric rehabilitation institute: A comparison between various tests

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Italy, like most of Western societies is characterised by a progressive increase of average life expectancy. According to ISTAT's annual, there are 13.4 million individuals over 65 years of age, i.e. 22% of the total population. Following an increase in life expectancy, age-related diseases also increase. There is good scientific evidence showing that the multiple co-morbidities among elderly people are part of a broader entity called "elderly fragility". Such nosological entity is still being defined, as there are two schools of thought: the first one considers fragility as a syndrome, the second one as a state. During the course of the last years there have been numerous tests aiming to define the boundaries of this entity by assessing each of its different facets. Considered individually, such tests prove useful as diagnostic/prognostic tools. However, they are even more useful when combined, as they describe patients' clinical condition in a more ample and complete way. In fact, fragility leads elderly people to the likelihood of developing numerous conditions with a short-term prognosis. This Study aims to assess a sample of geriatric patients at the moment of admission into a rehabilitation centre. The purpose was that of identifying fragile patients, and classify them through a multi-faceted assessment., as well as through a comprehensive individual rehabilitation programme. This was carried out through a series of 7 tests, plus a DXA exam for the sarcopenia. The data collected was analysed individually, and later integrated into a radar graphic visualising frail patient's clinical characteristics in various areas. Through this study it was possible to compare tests that are normally used in the typical CGA of geriatric clinical practice. A concordance was noticed between EFS, GFI, FI, SPPB, PASE, CF in Fragility evaluation. It has been seen that SHARE-FI and sarcopenia do not agree with the other tests, this is most likely due to the small number of enrolled patients (n=47) or to the effect of rheabilitation. An insufficient number of patients does not allow to have a representative population group and therefore to be able to perform a valid and repeatable statistical analysis.

P-250
The BMD change after Ibandronate (Bonviva®) treatment In osteopenic elderly women

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Background: Ibandronat (Bonviva®) is effective in the treatment of postmenopausal women with osteoporosis. But, there were few datas about Ibandronat (Bonviva®) treatment. We evaluated the effect of Ibandronat (Bonviva®) therapy on bone mass and compared the effectivity on bone mineral densit (BMD) in 1-year treatment group.
Objective: The aim of the study is to assess the effect of 1-year treatment with Ibandronat (Bonviva®) on bone mineral density (BMD) in postmenopausal women with osteopenia or osteoporosis.
Methods: The BMD was assessed in 118 postmenopausal women with osteopenia or osteoporosis from March 2007 to January 2011, 42 patents who treated with 2.5 mg per day of Ibandronat (Bonviva®) were enrolled to study. BMD of lumbar spine (L2-L4) and femur was assessed by dual energy absortiometry at baseline, 12 months after treatment.
Results: The annual BMD of the lumbar spine showed a 9.11% increase, while also positive changes were noted in the proximal femur as a 1.89% increase. The BMD changes were 11% (L: Lumbar spine) and 1.1% (F: Femur) for the T-scores <-4.0, 6.3% (L) and 0.9% (F) for the T-scores −3.0 to −4.0, and 3.8% (L) and 0.5% (F) for the T-scores >-3.0 respectively.
Conclusion: This study suggests that Ibandronat (Bonviva®) treatment in postmenopausal women with osteopenia or osteoposis is effective in terms of improving BMD.

P-251
The relationship between frailty and osteosarcopenia in geriatric patients

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Introduction: Osteosarcopenia, defined as the presence of both sarcopenia and osteoporosis in elderly patients, has been shown to be related with worse clinical outcomes. However, limited data are available in the literature about its association with frailty. We aimed to investigate the association between frailty and osteosarcopenia in the elderly patients.
Material and methods: One hundred elderly patients, who had bone mineral densitometry (BMD) performed on a routine basis within last one year, were enrolled in the study. All patients were evaluated by comprehensive geriatric assessment. Diagnosis of sarcopenia was done according to the criteria of the European Working Group on Sarcopenia in Older People. Osteosarcopenia was considered when both sarcopenia and osteoporosis were present. Frailty status of the patients were evaluated according to the Fried's Frailty Index including five domains weight loss, weakness, exhaustion, low activity and slow walking speed. The patients with three or more deficits over five components were considered as "frail", those with 1 or 2 deficits as "pre-frail" and no deficits as "robust".
Results: The median age of the one hundred patients (11 sarcopenic/non-osteoporotic, 12 osteosarcopenic and 77 non-sarcopenic) were 75 years (min–max: 65–90) and 51.0% were male. Frailty status of the patients was as follows: 21% frail, 44% pre-frail and 35% robust. Frailty was more common among osteosarcopenic patients compared to sarcopenic/non-osteoporotic and non-sarcopenic groups (66.7%, 27.3% and 13.0%, respectively) ($p<0.001$). Osteosarcopenia was found to be associated with frailty in univariate analysis (OR: 11.5, $p<0.001$). Low handgrip strength and calf circumferences, higher age, slow walking speed, lower body mass index (BMI), frailty, decreased scores of basic and instrumental activities of daily living (ADL), clock drawing test, mini-mental state examination and mini-nutritional assessment-short from (MNA-SF) were shown to be associated with osteosarcopenia (all parameters had $p<0.05$). In multivariate analysis, age (OR: 1.395, p=0.023), instrumental ADL (OR: 0.550, p=0.042), female gender (OR: 43.203, p=0.012) and BMI (OR: 0.507, p=0.004) were detected to be independently associated factors with osteosarcopenia.
Conclusion: Our results suggest that frailty rate in osteosarcopenic patients may be higher than sarcopenic/non-osteoporotic and non-sarcopenic patients. Further studies with larger number of patients are needed to elucidate its pathogenetic mechanisms.

P-252
Transitions between frailty states over three years in the MAPT study

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Introduction: The epidemiology of frailty (prevalence and associated factors) has mostly been described in cross-sectional studies. However, there is increasing evidence that frailty is a dynamic state that can worsen but also improve. Using repeated measures of frailty, this work aimed to describe transitions between frailty states during the three years of follow-up.
Methods: This study is nested in the MAPT trial (randomized trial to assess the effect of omega 3 supplementation and multidomain intervention on cognitive decline in people aged 70 and over). The study population included the 842 participants included in the control and omega 3 arms. Frailty was assessed using the Fried criteria (including measures of grip strength and walking speed) at baseline and at 6, 12, 24, and 36 months.
Results: The study population included 548 women and 294 men, of mean age 75.4±4.5 years. At baseline, 430 (53.3%) participants were robust, 349 (43.2%) pre-frail, and 28 (3.5%) frail. A total of 2271 transitions were observed during the 3 years of follow-up. In most cases, people remained in a robust (36.6% of the transitions) or pre-frail state (30.5%). The third most observed transition was from the robust to the pre-frail state (14.8%). Of note, direct transitions from robust to frail or from frail to robust were very rare and frail people were more likely to recover than to stay frail.
Conclusions: This study confirms the dynamic nature of frailty and shows that recovery is possible. Factors associated with the transitions will be investigated.

P-253
Untargeted metabolomics reveals pre-frailty sub-phenotypes in elderly

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Introduction: Human ageing is a dynamic process depending on intrinsic and extrinsic factors and its evolution is a continuum of transitions, involving multifaceted processes at multiple levels. It is recognized that frailty and sarcopenia are shared by the major age-related diseases, thus contributing to elderly morbidity and mortality. They are major health issues in elderly populations, given their high prevalence and association with several adverse outcomes. Due to their complex phenotypes and underlying patho-

physiology, the need for robust and multidimensional biomarkers is now essential to move towards a more personalized care and prevention.
Methods: The NU-AGE project [1] regroups 1250 free-living elderly people (65–79 y.o., men and women), free of major diseases, recruited within 5 European centres. Twenty percent of the subjects were pre-frail as defined by the criteria proposed by Fried et al.[2]. Six hundred twenty five volunteers were randomly assigned to an intervention group (1-year Mediterranean diet). A sub-cohort consisting in first, 120 subjects, half pre-frail randomly selected from the Italian and Polish centres, and secondly, 92 subjects shifting their frailty status were included for untargeted serum metabolomics at T0 (recruitment) and T1 (after diet intervention).
Results: Metabolomics enables to discriminate sub-phenotypes of pre-frailty both at the gender level and depending on the pre-frailty progression and reversibility. Additionally, early and/or predictive markers of pre-frailty were identified in both populations.
Conclusion: These results open the door, through multivariate strategies, to a possibility of monitoring the disease progression over time and/or in response to interventions at a very early stage.
References:

[1] Santoro A, Pini E, Scurti M, Palmas G, Berendsen A, Brzozowska A, Pietruszka B, Szczecinska A, Cano N, Meunier N, de Groot CP, Feskens E, Fairweather-Tait S, Salvioli S, Capri M, Brigidi P, Franceschi C. NU-AGE Consortium. Mech Ageing Dev. 2014 Mar-Apr;136–137:3–13.
[2] Fried LP, Tangen CM, Walston J, Newman AB, Hirsch C, Gottdiener J, Seeman T, Tracy R, Kop WJ, Burke G, McBurnie MA. Frailty in older adults: evidence for a phenotype. J. Gerontol. A: Biol. Sci. Med. Sci. 2001 56 (3) M146–M156.

P-254
Urinary incontinance and sarcopenia: a new insight

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Purpose: Urinary incontinence (UI) is a common cause of morbidity in the elderly. Identification of factors associated with urinary incontinence is necessary to identify risky individuals and to take preventive measures. We suggest that sarcopenia may facilitate urinary incontinence by decrease in muscle mass/strength. In this study, we aimed to investigate the relationship between urinary incontinence and sarcopenia.
Methods: Elderly people between the ages of 60–99 were included in study. Demographic data, clinical data, UI and its types were obtained. Body mass index (BMI), hand grip strength and walking speed were assesed by using physical examination. Muscle mass was measured by bioimpedance analysis (TANITA-BC532). Low muscle mass thresholds were assessed according to national data (Muscle mass adjusted by height for women $<$7.4 kg/m^2, for men $<$9.2 kg/m^2; muscle mass adjusted by weight for women $<$33.6%, for men $<$37.4%; muscle mass adjusted by BMI for women $<$0.82 kg/BMI, for men $<$1.05 kg/BMI, another treshold for muscle mass adjusted by BMI for women $<$0.68 kg/BMI, men $<$1.02 kg/BMI, for men$<$1.02kg/BMI).
Results: The prevalance of UI was %46.2 (601/1302). Associated factors with UI were gender, age, drug-number, BMI, fecal incontinence, constipation, falls, sleep disorders, frailty, activities of daily-living, instrumental activities of daily-living, grip strength, walking speed, bia muscle, skeletal muscle mass, muscle mass adjusted by weight and BMI. Independent factors related with UI in regression analysis models; Fecal-incontinence, drug-number, frailty and instrumental activities of daily-living. While hand-grip strength was not associated with UI, muscle mass adjusted by weight and body mass index were found to be related to urinary incontinence.
Conclusion: The results of our study show that UI is independently associated with sarcopenia. Treatment of sarcopenia may have a positive effect on UI.

P-255
Validation of the Korean version of the SARC-F to assess sarcopenia: KFACS

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Introduction: Strength, Assistance in walking, Rise from a chair, Climb stairs, Falls (SARC-F) scale is a simple screening tool for sarcopenia using a simple 5 item questionnaire. The aim of this study was to validate the Korean version of SARC-F (K-SARC-F) in Korean community dwelling older adults.
Methods: Using data from the Korean Frailty and Aging Cohort Study (KFACS), and 1,548 participants who aged over 70 years were included. Questionnaire items were translated into Korean, and 5 questions were used to calculate the score. Classification using the K-SARC-F score ($\geq$4: sarcopenia group) was compared using consensus panel criteria from international, European, and Asian sarcopenia working groups. The association of K-SARC-F with other scales or tests was analyzed Measurements, including appendicular muscle mass, were taken using dual-energy X-ray, grip strength using a dynamometer, 4-m gait speed, and time taken for repeated chair stand.
Results: The participants' mean age was 76.2 years old, and 726 (46.8%) were males. Using K-SARC-F tool, the overall prevalence of sarcopenia was 10.8% (8% with European, 12.7% with International, 9.7% with Asian working group, male: 4.7%, female: 16.3%). The SARC-F has excellent specificity (over 90%) but poor sensitivity for sarcopenia classification. The scale was also correlated to other measures related to sarcopenia (such as age, gait speed, grip strength, SPPB, balance, SMI, and frailty).
Conclusion: The K-SARC-F scale is correlated with the sarcopenia index and is a simple tool to rule out for sarcopenia in a clinical setting.

P-256
Validation of the Turkish version of the Clinical Frailty Scale

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Background: Frailty is a geriatric syndrome which develop as a result of cumulative decline in many physiological systems and resulting in an increased vulnerability and risk of adverse outcomes. The clinical frailty scale (CFS) was validated as a predictor of adverse outcomes in community-dwelling older people and mixes items such as comorbidity, cognitive impairment and disability.
Aim: We aimed to study the concurrent validity and inter-rater reliability of the 9 point CFS in Turkish Population. Design: Cross-sectional observational study in a large tertiary, Hacettepe University hospital in Ankara, Turkey.
Methods: Between March 2017 and May 2017, total, 82 patients

aged ≥65 years admitted to a geriatric outpatient clinic were included. Construct validity of CFS was assesed with Fried Frailty phenotype and FİND questionnaire–Turkish version.
Results: Total 82 patients' mean age was 75,6 years (SD:6,09 years) and %61 were females. %64.6 patients used ≥4 drugs. CFS inter-rater reliability and re-test reliability was very strong (kappa 0.811, p<0.001 and 0,899, p<0.001 respectively). When frailty was examined within 3 groups (normal, prefrail and frail group); concordance of CFS and Fried Frailty phenotype was moderately (Cohen's kappa 0,514 p<0,001). When frailty was examined within 2 groups (normal and frail group); concordance of CFS and Fried Frailty phenotype was good (Cohen's kappa 0,715, p<0,001). The concordance of CFS and FİND questionnaire–Turkish version was low (Cohen's kappa 0,34, p:0,001).
Conclusions: CFS appears to be a quick, reliable, and valid frailty screening instrument for Turkish community dwelling elderly.

P-257
What are the best 1-year predictors of falls and mortality among nursing home residents? Results of the SENIOR cohort

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Introduction: The present study aimed to find clinical predictors of falls and deaths among nursing home residents.
Methods: We studied 662 subjects from the SENIOR cohort (Sample of Elderly Nursing home Individuals: an Observational Research) aged 83.2±8.99 years, including 484 (72.5%) women, and living in nursing homes. Among this cohort, respectively 584 and 565 subjects were monitored during 12 months, for mortality assessment and for occurrence of falls (i.e. via their medical records). A large number of clinical characteristics were also collected at baseline, during a face-to-face examination with each patient. Stepwise regressions analyses were carried out to predict mortality and falls.
Results: When comparing clinical characteristics of deceased and still alive subjects, being a man (OR: 1.89, 95% CI: 1.19–3.01, p=0.002) and being diagnosed with sarcopenia (OR=1.7, 95%CI: 1.1–2.92, p=0.03) were independent factors associated with the 1-year mortality. Other independent factors that were significantly associated, this time with the one-year occurrence of falls were: the result obtain at the Tinetti test (OR =0.93, 95%CI: 0.87–0.98, p=0.04), at the grip strength test (OR=0.95, 95%CI: 0.90–0.98, p=0.03) and at the isometric strength test of the elbow extensors (OR=0.93, 95%CI: 0.87–0.97, p=0.04).
Conclusion: Globally, the frequency of undesirable health outcomes (i.e. falls and mortality) seems to be higher among subjects with lower muscle strength and mobility. These findings, strategically exploited, could potentially, but significantly, reduce falls and even deaths.

P-258
What characterises hip fracture cases in AGES-Reykjavik study?

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Introduction: Elderly people are at increased risk of hip fracture. Apart from poor bone health, hip fracture cases tend to be older, have lower BMI and are less active. Other factors that may contribute to the risk of fracture are not well characterised.
Aim: To examine characteristics of people who develop hip fracture compared to non-hip fractures.
Methods: Longitudinal study of 5764 participants (mean age 77y at baseline) from the Age, Gene/Environment Susceptibility-Reykjavik study (AGES-Reykjavik) 2002–2006. Extensive clinical measurements including CT-scans, functional and leaning tests and history of past and present health was recorded.
Results: During follow-up of 7.2y, were 486 hip-fractures (144 occurred in men). Men and women who developed hip fractures were significantly (p<0.001) older (80 vs. 77y) and had reduced bone mineral density of the femoral neck (213 vs 252 mg/cm^3), lower serum 25(OHD) (48 vs 54 mmol/L), and longer timed up and go test (14 vs 12 sec) (p<0.001) poorer leaning test (7.1 vs 8.3cm). Comparable results were observed for both sexes. In addition, muscle strength of leg in knee extension was 17 and 10 kg among male and females who did not devlop hip fractures compared to 14 and 9 kg for males and females who devloped hip fracture (p<0.001 for both sexes). Similar pattern was observed for muscle area in thigh. All differences remained significant after adjustment for age.
Conclusions: Elderly men and women who develop hip fractures already manifest significantly less muscle strength, mobility and balance compared to peers of comparable age.

Area: Geriatric education

P-259
A serious game concerning delirium care as educational tool: effect on skills, attitude and learning motivation

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Introduction: Yearly 100,000 patients in Dutch hospitals experience delirium, with very adverse consequences. Good diagnosis followed by adjusted care are crucial for treatment. Delirium is often detected late and treated inadequately. The Delirium Experience (DE), a simulation-based serious game, is developed to educate healthcare professionals in caring for delirious patients.
Methods: A randomised controlled trial was conducted in third year medical students, to study whether the DE influences skills and attitude regarding care for delirious patients, and learning motivation. Participants received a lecture on delirium, the control (c. video on healthy ageing) or one of the intervention conditions (i1. video concerning delirium and a patient's experience or i2. serious game DE), and were demonstrated an interview of a delirious patient. Skills were measured by assignments on the interview, attitude with the Delirium Attitude Scale, and learning motivation with the Motivation and Evaluation questionnaire. Data were analyzed with the use of a one-way ANOVA, and pairwise post hoc comparisons.
Results: In total 156 students participated, 31% had experience with delirious patients. Attitude was more positive in the i1 group, compared to the control group (p=0.007). Learning motivation and skills were higher in the i2 group compared to both other groups (p=0.000).
Conclusion: The serious game DE demonstrated its capacity to train students' skills and increase learning motivations but not attitude.

P-260
Adult children of persons with dementia and their experience: Thoughts about mental health services

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Adult children of persons with dementia and their experience: Thoughts about mental health servicesVaitsa Giannouli & Nikolaos SyrmosSchool of Medicine, Aristotle University of Thessaloniki, Greece Introduction: The aim of this research study is to distinguish the main factors that influence the attitudes of adult children of persons with dementia and reveal their real needs that mental health experts should focus on.
Methods: Ten adult children of patients with severe dementia (6 women, mean age =42.5 years, mean education years =16 years, and mean age of formal diagnosis for the patient 8.5 years) from Greece participated in the study. The method that was used were semi-structured interviews based on grounded theory that aimed at unveiling (without imposing false categories) the main categories that shape their everyday emotions and thoughts.
Results: Results indicated that initially 102 categories existed, which were later diminished at 4. The categories can be described as: 1) the patients' interaction with others, 2) the social life of the family, 3) the general support network, and 4) the thoughts for the future of the dementia patient. All the above categories were linked with and causally created from the poor existing health care system according to the interviewees' words.
Conclusions: Mental health experts in Greece should try to understand that in many cases there exists an imperative need for the design of support programs or/and therapeutic programs for relatives of patients with dementia.

P-261
Are medical students ageist? Explicit and implicit survey

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Introduction: Negative stereotypes concerning elderly persons are widespread in general population. If health care professionals adopt such stereotypes, their behavior may result in a decrease the quality of care for elderly, or even in an induce disability. That's why medical curriculum should take the question of ageism in consideration. Though, little is known about ageism among medical students and its determinants.
Methods: We conducted a study on Rennes and Brest University (France) medical students (year 2 to year 6) using online questionnaires. Explicit preferences have been studied with validated tools, such as Fraboni Scale of Ageism, and innovating ones, such as verbal fluency task about aging and youth. To underplay the social desirability bias, we then used implicit association test (IAT) to evaluate the strength of implicit stereotypes. Results have been analyzed according to age, gender, year of study, and geriatric training.
Results: Concerning explicit questionnaire, response rate was above 90%, leading to 814 replies. Negative stereotypes seemed lower in female students, and in those who have regular contact with elderly persons, especially if these contacts are good, with no effect of geriatric training. Implicit survey is in course with already 570 replies.
Conclusion: Ageism is widespread in medical students and should be addressed in geriatric training.

P-262
Associations of total and different types of physical activities with quality of life in Korean elderly population

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Physical activity is a well-known determinant of Quality of Life (QoL) in older adults. However, the association between the specific type of physical activity and QoL has not been evaluated in older adults and little is known about whether physical activity improves QoL in retired individuals. This cross-sectional study was conducted using the latest data from the Korea National Health and Nutrition Examination Survey, 2015. In this nationally representative study, 1811 participants aged over 60 years were analyzed. We investigated the association between demographic characteristics and health related QoL assessed by the EQ-5D index. To evaluate health-related QoL of participants regarding total and the specific types of physical activities, multivariate logistic regression analysis was performed after adjusting the age, sex, household income, occupational status, and the number of co-morbidity. In multiple logistic regression analysis, moderate to vigorous total physical activity compared to low physical activity showed lower odds of problem of mobility (OR=0.61, 95% CI: 0.47–0.79), problem of self-care (OR=0.67, 95% CI: 0.45–0.99) and problem of usual activity (OR=0.49, 95% CI: 0.34–0.72). Moderate-high commuting physical activity had inverse association with risk of problem of mobility (OR=0.64, 95% CI: 0.48–0.85), problem of usual activity (OR=0.47, 95% CI: 0.31–0.72) and problem of anxiety (OR=0.63, 95% CI: 0.43–0.95). Moderate-high leisure-time physical activity showed decrease in problem of mobility (OR=0.49, 95% CI: 0.30–0.79). Moderate-High total, commuting, and leisure-time physical activity lowered the problem of mobility in QoL. However, occupational physical activity neither increased nor decreased all subtypes of QoL in the Korean elderly population.

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Defining the curriculum for medical care in nursing homes

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Introduction: The definition of standards of medical care and curricula for training of medical officers in nursing homes has been neglected until very recently. The EUGMS has taken a lead on this topic, examining both current national policies [1] and establishing the first set of standards of medical care in the biomedical literature [2]. A topic worthy of research is to define a core curriculum for competence in medical nursing home care.
Methods: Itemizing and comparison of curricular items in a range of national and international sources, including the IAGG Handbook, Irish, Dutch and Australian curricula, and the AMDA competencies curriculum. These will then be prioritized by a Delphi process involving members of national societies in the EUGMS.
Results: Items common to all five sources included: delirium and dementia, mobility and falls, polypharmacy and medication review, palliative and end of life care and incontinence. Mood disorders, skin care, infection and management of chronic diseases were featured in four out of five sources.
Conclusions: This preliminary work lays the foundation for the development of an agreed common trunk to an EUGMS curriculum for training of doctors working in nursing homes with older

people. It will also allow for the development of audit and quality indicators

References:

[1] Briggs R, et al. European Geriatric Medicine 2012;3(6):365–7.
[2] Briggs R, et al. European Geriatric Medicine 2015;6(4):401–403.

P-264

Design of a geriatric program in United Arab Emirates

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Aims: We created a three days geriatric program for Primary Care Physicians belonging to United Arab Emirates Health and Prevention Ministry (MOH) sponsored by Quironsalud Medical Group of Madrid Spain.
Methods: Different interactive activities were prepared related to essential features of geriatric work: Comprehensive Geriatric Assessment, Geriatric syndromes. Special emphasis was placed on information exchange.
Results: Between April 14th and 16th 2017 a team of two doctors visited he MOH Training and Development Center in Sharjah doing different activities with a gropu of 30 doctors from different emirates. The program included comprehensive geriatric assessment, geriatric syndromes, nutrition in the elderly patient, dementia and cognitive impairment, behavioral symptoms, Perioperative care, Urinary tract infections and medical cares at the end of life.
Conclusions: During the three days the geriatric team had the opportunity to exchange information with primary care physicians. Primary care physicians showed a high level of interest in geriatric subjects. The course received very good reviews and help to establish relation between primary care physicians in the Arab world and our geriatric team.

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Determination of attitudes of participants in an advanced age symposium related to age discrimination

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Aim: To detect the perspective of those from different occupations who are in touch with the world of the elders and attending 1th International Izmir 10th Advanced Age Symposium (22–23th March 2017).
Method: Ageism Attitude Scale was used. Independent variables were age, gender, education, visiting nursing home, marital status, occupation, family type, place where they live, living with the elderly person.
Results: 202 people have been reached. Mean age was 35.8±16.5, %79.9 were women,%8.4 (n=17) 65 years and over. The average score is 89.2±7.4 (65–107) and this score is statistically significant for 65 years and below (p=0.008). Participants are asked what comes first to their mind when said "old" and %51.9 of the replies are determined as negative stereotype, %32.3 are positive stereotype. Restricting life of elderly score is 36.3±3.1 (26–44), Positive ageism score is 31.8±4.3 (16–40) and Negative ageism score is 21.1±3.4 (6–30). For the married average score of the negative ageism is statistically significant (p=0.002). Positive ageism for the unmarried (p=0.001), for those living in extended family (p=0.029) and those who have not worked in a unit that serves elderly (p=0.038) is statistically significant.
Conclusion: It was determined that there was a positive attitude towards the elderly in the study. In sub-dimensional analysis, it is found that old age is restrictive and there is a positive ageism. The more positive attitude is detected for those who have less contact with the elderly, unmarried and living with extended family.

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Does geriatric interprofessional education increase student's confidence in core geriatric presentations?

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Objective: To assess the efficacy of a case-based interprofessional education (IPE) programme covering core geriatric topics relevant across specialties.
Background: The Shape of Training Report 2013 recognises increasing disease burden in our ageing population. "Geriatric giants" present across specialties, and are often medically or ethically challenging, requiring involvement of multiple professionals. Population changes outpace curricula changes and these are often sparsely taught. Oxford Medical School and Brookes University continue to deliver geriatric IPE addressing such issues.
Methodology: Anonymous self-assessment in perceived confidence in adopting inter-professional approach in dealing with geriatric medical problems was collected before and after IPE sessions. Confidence was measured by using a 5-point Likert scale. Nursing and medical students worked in small groups on four chosen common geriatric problems before the arrival of senior nurse and doctor who facilitated the discussion from the inter-professional team's perspective.
Results: 73 nursing and 85 medical students provided feedback (5 excluded as incomplete). Using the paired T test, 63% nursing students had improved confidence post intervention, (mean score increase 0.77), while 84% of medical students had improved confidence, (mean score increase 1.21) post-intervention.
Conclusion: There was a statistically significant improvement in students' confidence following intervention, slightly greater for medical students, likely due to relative inexperience compared to nursing students, who already had 3 years clinical experience. Future sessions could potentially be improved by better matching of student's level of clinical experience and the involvement of other health care professionals. This form of geriatric IPE statistically significantly increases student's confidence.

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Educational initiative to promote knowledge of cognitive dysfunction in minority older communities, their caregivers and clinicians

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Introduction: In addition to the ageing of the population, the United States faces a significant sociodemographic challenge: the growth in the number of minorities. Minorities and older adults are particularly vulnerable to receiving suboptimal healthcare.
Methods: In collaboration with community organizations and a Federal government grant through the Health Resources and Services Administration (HRSA), the Geriatric Resource Interprofessional Program (GRIP) was set up at Memorial Sloan Kettering

Cancer Center (MSKCC). It spearheaded an educational initiative on cognitive dysfunction targeting minority communities in Queens County. Four sessions were conducted at community centers. An additional session was conducted to address the needs of caregivers of older adults with dementias. Consecutive interpretation of the lectures was performed to the predominant language of the group. Two sessions discussing the assessment and management of cognitive syndromes in older cancer patients were delivered to clinical staff at regional locations of MSKCC.
Results: A total of 171 people who spoke 15 different primary languages attended the community sessions. Their median age was 66 (28–99 years) and 65% were women. 53% were born in Bangladesh, the rest in 16 other countries. 34 providers- nurses, case managers, social workers and oncologists attended the two clinical sessions. Their median age was 57.5 (31–73 years). 90% were female (N=31) and 82% identified as white (N=28).
Conclusions: Challenges to the initiative included differences in literacy, multiple cultures and languages. Successes and barriers faced in implementing the educational initiative, as well as pre and post-test results will be presented.

P-268
End the silence: Developing an educational curricula for health care professionals on elder abuse

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Background: Elder abuse (EA) is an under-recognized problem which increases morbidity and mortality among those affected. EA is defined as a single or repeated act, or lack of action, occurring within any trust relationship, which causes harm or risk of harm to an older person. Only 40% of the countries have laws to prevent EA. In US, physicians report 1% of all EA cases. Lack of education is often cited as a primary cause of failure to identify and report EA.
Methodology: An educational curriculum based on the adult model of learning was developed and piloted at the Durham Veterans Affair Medical Center. The curriculum was developed as a 60 minute, multimedia case based interactive lecture for health care providers (HCP) routinely caring for older adults. Components include EA definition, types, risks factors, symptoms, and the reporting processes. Pre, post, and post-post surveys were done testing knowledge, clinical skills and attitude on EA.
Results: 86 participants included social workers, physical and occupational therapist, nurses, geriatricians, and learners. There was noted improvement post and post-post test after the educational intervention. Most significantly, recognition all types to abuse (7/86 to 20/86) and ability to identify sexual abuse as a type of EA (15/86 to 27/86). Focus group analysis suggests that the curriculum was effective at increasing awareness, ability to identify and report EA.
Conclusion: Our 1- hour curriculum on EA for HCP has since been reproduced in CD format and interactive webinar and has the potential to improve knowledge and recognition of EA.

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Fibromyalgia and health education

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Introduction: Fibromyalgia is a chronic disease with generalised pain and psychosocial problems which could benefit from multidisciplinary intervention.
Objectives: To create a group of people diagnosed with fibromyalgia to train them to improve their quality of life. And quantify the improvement of chronic pain, after a group didactic intervention.
Methodology: Urban primary care center of 15387 patients assigned, where 3% suffers from fibromyalgia. A multidisciplinary group was created by a nurse, a social worker, traumatologist and a primary care physician. Group open to the entire population assigned to the Primary Care Center (PCC) affected by fibromyalgia. The intervention was a year of one-hour weekly sessions, with professionals performing health education in hygienic and postural care and evaluating the improvement in the impact on activities of daily living.
Results: We started the group with 18 people, who at the end of the experience had tripled. A descriptive analysis of the participants was performed: 100% women, mean age 61.5±10.2, 90% married, 95% did not work. Improvement in self-perception was assessed in 58.9% of patients. The mean score on the visual analogue scale of pain intensity (range 0 to 10) decreased from 4.5±1.9 SD to 3.9±2.4 SD (p=0.02). The satisfaction level was 9 out of 10.
Discussion: Patients improved their attitude about the disease as well as their emotional state. They have created an association for their benefit and establishing themselves as an autonomous group. We are planning to organise eight structured sessions with reduced groups.

P-270
Mutual respect – how should doctors, nurses & patients address each other

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Background: A successful consultation depends upon the initial rapport built between healthcare professionals and patients. Older patients will be used to having been addressed more formally than is common nowadays, but limited published data is available questioning whether such patients would prefer to be addressed by their first or surname.
Objective: We set out to question patients' perspective – asking how they would prefer to be addressed, and seeking their views in how healthcare professionals should introduce themselves.
Method: We approached 66 consecutive in-patients on trauma and orthogeriatric wards. Our hypothesis was that oldest patients might prefer a more formal form of address than was actually being used on the ward, so individual patients were questioned by someone who had not previously introduced them self, and who not involved in the patient's clinical care. Questioning was open, without the presumption of informality sometimes evident in nurses approach to the admissions process. We asked each patient how they would prefer to be addressed by the staff, how they were actually being addressed, and how hospital staff introduced themselves.
Results: Nine patients (14%) were unable to answer the questions due to cognitive impairment. Of the remaining 57 patients the mean age was 80 years (range 27 to 101 years), and 63% were female. 54 (95%) stated that they preferred to be called by their first or nickname, one patient wished to be called by their surname, and two patients stated no preference. 48 (84%) of them stated that doctors tended to introduce themselves by their title and full name. On discussion the majority of patients preferred this. 47 (82%) said that nurses introduced themselves by their first name and most patients preferred this. "A doctor's title should be used, I want to know who I am speaking to." There was no apparent difference in attitudes between younger and older patients.
Conclusion: Even the oldest patients in hospital are now comfortable with informal forms of address. Traditional attitudes are still evident in a preference for respecting a doctor's title and surname. When approaching patients we should introduce ourselves formally, but ask them what they would like to be called.

P-271
New educational technologies in gerontology

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The aim of study is to implement the best educational practices among younger's in gerontology to achieve clear understanding of healthy aging and improve knowledge's in communication with seniors.
Material and methods: Few educational technologies were implemented: interactive games with using of simulators of geriatric syndromes; education in physical training by using of special exercises for cognitive support (intelligent gym); education in field of local folk and language traditions which can be used in supporting of physical and cognitive functions. The average age of younger's group was 21,2+1,5 years, participants were students of different senior schools, total number of participants of educational programs was 346. For estimation of effects of training programs special original questionnaires were used.
Results: During educational programs the level of knowledge in preventive and healthy behavior increased on 35,5%, the number of healthy habits on 15,5%, understanding of healthy aging on 52,0%, understanding of health and social problems of elders on 70,0%, the level of ageism decreased on 30,0%. 70,0% of participants of education trainers noticed the increased level of understanding of problems of their old relatives and neighbours, 82,5% expressed interest in training because all topics were in fashion in the society.
Conclusion: Achievement of long and healthy lifespan by paying attention to the health status, behavior, habits of younger generation is possible by using of untraditional interactive forms of education of younger's in sphere of healthy ageing.

P-272
Prevalence of carotid sinus syndrome in older versus younger patients presenting with unexplained syncope, falls and dizziness

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Introduction: Carotid sinus syndrome (CSS) is a known cause of unexplained syncope, falls or dizziness, although it is often under-recognised in clinical practice. CSS can be cardio-inhibitory (CI-CSS), vasodepressor (VD-CSS) or mixed. The aim of this study was to assess the prevalence of CSS in this population.
Methods: We reviewed data from consecutive patients with unexplained syncope, falls or dizziness referred for carotid sinus massage (CSM). CSM was performed in a standardised manner for 10 seconds bilaterally in supine and upright positions (tilt table) with electrocardiography and digital plethysmography measuring beat-to-beat blood pressure (BP). The diagnostic criterion for CI-CSS was 3 second pause and for VD-CSS was 50mm Hg systolic BP drop (or 30mmm with symptoms).
Results: 272 patients (mean age=53.6±22.6; range=18–93; 106=men) were studied. The overall prevalence (95%CI) of CSS was 8.4% (5.1–11.7). Prevalence of CI-CSS and VD-CSS were 1.8% and 6.9% respectively. The CSS prevalence in older (≥65 years) was four-fold higher than in younger (<65 years) patients [16.3% (9.2–23.4) vs 4.1% (1.3–6.9); $p<0.05$]. The CSS prevalence in men tended to be twice that in women [12.3% (6.0–18.6) vs 6.0% (2.4–9.6)]. The prevalence in older (≥65 years) men and women were 23.2% (10.6–35.8) and 11.4% (3.4–19.4) respectively. No adverse events occurred.
Conclusion: Approximately a quarter of men and one tenth of women aged over 65 years with unexplained syncope, falls or dizziness were diagnosed with CSS which allowed appropriate intervention to be performed. This included general advice for VD-CSS and dual-chamber pacemakers for CI-CSS. CSM procedure was safe.

P-273
Quality improvement project to improve the knowledge and prescribing practices by trainee doctors inpatients with Parkinson's disease

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Introduction: Medication management in patients with idiopathic Parkinson's disease (iPD) is challenging for trainee doctors. Education in prescribing practice is limited by the time constraints of rotas and busy clinical jobs. Using Quality Improvement methodology, this project aimed to identify what learning technique would be most acceptable to doctors in training.
Methods: Trainee doctors working in the Emergency Assessment Unit (EAU) of a University teaching hospital were surveyed to assess their baseline knowledge in prescribing Parkinson's medications. A 2-week educational approach was then implemented, including email messages and a short presentation at twice-daily handover. A post-intervention survey was used to determine the trainee's preferred learning techniques.
Results: 30 trainees completed the pre-intervention survey. This confirmed knowledge-gaps including route of delivery, contraindicated medications and management of nil-by-mouth status. 32 trainees completed the post-intervention survey. 23/32 (71.9%) felt the project had improved their prescribing practice in this area. 29/32 (90.6%) agreed they understood the adverse effects of missed doses, and 26/32 (81.2%) how to manage nil-by-mouth status. Given a choice of a single educational approach, the cohort expressed a preference for seminar-based teaching (33.3%) or an on-line learning module (33.3%), over a daily EAU handover (26.7%) or email at the beginning of the placement (6.7%).
Conclusions: Although it was not surprising that trainees felt their knowledge had improved following the intervention, what is more important is the learning style they wish to adopt. We are now in the process of developing an on-line education module in this important area of prescribing.

P-274
Relation between falls and consequences in institutionalized elders, before and after a removal intervention of physical and pharmacological restraints

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Introduction: Being falls one of the geriatric syndromes with a highest impact in institutionalized people in nursing homes; this study tries to assess if with a physical and chemical restraints reduction programme is possible to achieve a reduction in the number of falls and its consequences.
Methodology: An intervention in Alcorcón's nursing home shows that after training their staff, physical restraints were phased out compared to last year, where 60% of the residents had a physical restraint prescription. The main variables studies were: falls and psychotropic medication prescriptions.
Results: It is proven that removing physical restraints do not cause an increase in the number of falls, also showing a positive improvement in its consequences. Likewise, it is shown that is has not been necessary to increase the prescription of psychotropic medication.
Conclusion: It is verified that the elimination of physical restraints has not a negative impact in falls, improving certain aspects of welfare and behavioral changes. It is evident that this program should be complemented with a removal of pharmacological restraints.

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Solving an age-old problem, how do our trainees learn about geriatric medicine

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Introduction: The UK population is ageing and it is critical that effective Geriatric Medicine teaching programmes are established to train the Physician workforce to effectively care for an ageing population. We sought to establish how Core Medical Trainees CMT within North central and North east London learnt about Geriatric Medicine.
Methods: A questionnaire adapted from a survey of training in Geriatric Medicine in UK medical schools was sent as a web based survey to all 197 CMTs in March 2016.
Results: 94 trainees responded (response rate 46%). 59.57% (56) had Geriatric Medicine as part of their 2 year CMT rotation. Workplace based learning WBL were the predominant source of teaching and learning in core Geriatric Medicine; delirium 75.9%, dementia 74.7%, falls 72.29%, mental capacity 68.75%, polypharmacy 65%, advanced directives 62.5%, assessment scales 69%, stroke/TIA 59.4%, Parkinson's disease 57.83%, principles of medical ethics 56.2% and osteoporosis 49.4%. Trainees learning about Pressure ulcers, Incontinence, Cancer in the elderly, Cellular aspects of aging, Physiological aspects of ageing, Elder abuse, Population ageing, Social ageing and models of community based care were poor in local and regional teaching programmes. E learning was used commonly in Principles of medical ethics 17.5%, Mental capacity 17.5%, Elder abuse 18.75% and advanced directives 10%.
Conclusion: This study emphasises that teaching and learning experiences for CMTs occur in the workplace through day to day work experiences. It is important to include topics with low WBL into formal teaching sessions to ensure adequate exposure to all aspects of Geriatric Medicine.

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The use of the aging simulator in nursing students: A scoping review

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Introduction: The use of Simulation as a teaching/learning strategy in the training of nurses has increased in the last decades and provided the acquisition and development of several competences. However, data regarding the specific use of the Aging Simulator are scattered in the literature. The purpose of this Scoping Review is to analyse and map interventions with the Aging Simulator, implemented in nursing students.
Methods: Scoping Review conducted according to the methodology proposed by the Joanna Briggs Institute (1,2). This review considered qualitative and quantitative studies, focused on nursing students, who used the Aging Simulator. Studies were considered without limitation of year of publication, in English, Spanish and Portuguese.
Results: Of 195 studies found, two studies were included in the review. The use of the simulator oscillated between one and three hours, between the use of the complete simulation suit and only some constrictors. Empathy evaluation and learning effectiveness tools were implemented. Both studies were implemented in students of the 2nd year of the Degree.
Conclusions: The characteristics of the intervention, duration and evaluation instruments differ between studies, so a systematic review of the effect of the Aging Simulator is necessary to determine the best available evidence and guide the training of nursing students. Further studies should be performed to determine the effect/findings of the implementation of the Aging Simulator in the acquisition and development of competences in a pre and post clinical context.
References:
[1] Peters M, Godfrey C, McInerney P, Baldini Soares C, Khalil H, Parker D. Methodology for JBI scoping reviews. The Joanna Briggs Institute Reviewers' Manual 2015. Adelaide (Australia): The Joanna Briggs Institute; 2015. p. 1–24.
[2] Peters M, Godfrey C, Khalil H, McInerney P, Parker D, Soares C. Guidance for conducting systematic scoping reviews. Int J Evid Based Healthc. 2015 Sep;13(3):141–6.

P-277

Toward physician mediated quality measure for nursing home care

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Background: Most quality measures for nursing home care emphasize facility-level processes and structure and are not designed to evaluate the role of the physician in this setting. AMDA, the Society for Post Acute and Long Term Care Medicine (AMDA) engaged providers in Europe and the US to identify physician competencies for nursing home care; however, these competencies have not been linked to specific measures that reflect the steps of care under the control of these providers.
Methods: Starting in January 2017 and supported by RAND, a research team that included content experts in nursing home care from the US, Canada, the Netherlands and EUGMS SIG long term care identified existing quality measures that map to AMDA's Attending Physician Competencies. Quality Indicators considered included ACOVE Quality Indicators for community dwelling elders, the ACOVE NH Quality Indicator set, published guidelines, recommendations from "Choosing Wisely" and items in the Consumer Assessment of Healthcare Providers and Systems (CAHPS) suite of surveys. The team updated and adapted measures to create candidate measures that are appropriate for US, Canadian and European facilities and that reflect the achievement of AMDA competencies. As a next step, an international expert meeting was held in June 2017 that used the RAND modified Delphi process to identify a final set of measures, considering validity and feasibility.
Findings: The presentation will go into the key findings of the consensus meeting and present the resulting quality measures. Special attention will be given to feasibility of these measures in different health care systems across Europe.

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Training to adopt National Early Warning Score (NEWS) in community hospitals: Improvement after training in recognising unwell patients using the NEWS

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Introduction: NEWS was implemented in the UK to standardise the assessment of acute-illness, severity of all hospital inpatients and also to track their clinical condition, alerting the clinical teams to any clinical deterioration and triggering a timely clinical response. The NEWS was adopted in our community hospitals, on three wards for 69 patients in 2015. Lack of timely clinical response for a patient; led to the review of practice and the implementation of NEWS training for all community hospital staff.
Methods: In 2015, NEWS charts of 30 inpatients were reviewed and the results showed patient monitoring and clinical response were not satisfactory. Following the completion of NEWS training to all

staff, NEWS charts of all inpatients (69 in total) were reviewed on one day in 2016. The two audits were assessed against Trust and Royal College of Physicians (RCP) guidelines and compared.
Results There was significant improvement seen in every area assessed when compared between 2015 and post-teaching in 2016. NEWS Assessment on consecutive days improved from 53% to 70%, time documented 53% to 70%, scoring 70% to 81%, scoring correctly 77% to 93%, monitoring based on guidance 13% to 78%, Documentation on electronic medical records from 0% to 53% and documentation on NEWS paper charts for action 90% to 100%.
Conclusions: The findings show clear improvement in patient monitoring and timely clinical response after teaching sessions, with room for more improvement. Teaching sessions should be incorporated, for any local adaptation and implementation of national guidelines to improve staff competency and clinical practice.

Area: Metabolism and nutrition

P-279
A prospective cross-sectional study of hyponatremia among elderly patients in the Department of Geriatrics at Kaunas Clinical Hospital (Lithuania)

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Introduction: HN is frequent electrolyte imbalance in clinical practice. Aging, chronic diseases, use of medications can cause HN. HN is associated with multiple poor clinical outcomes: increased mortality, longer hospital stay, higher institutionalization risk.
Methods: In a prospective cross-sectional study we used interview, clinical examination, medical data (n=144, age 83,34±6,78 years). Patients with HN were defined as serum Na+<135 mmol/L. Variables were evaluated using Chi-square, Spearman test. Data were considered statistically significant if value $p<0.05$.
Results: Prevalence of HN among elderly patients was 28.5% with mean Na+value of 127.85±5.47 mmol/l. This group consisted of 46.3% mild, 29.3% moderate and 24.4% severe HN. The duration of HN was evaluted as chronic (n=41; 100%). All of patients complained about weakness, fatigue, 78% felt thirst, 61%-vertigo, 56%-headache, 43.9%-nausea. 36.6% of elderly patients had moving disorders, 39.0% swelling legs, 36.6% consciousness, 31.7% irritability, 29.7% irregular heartbeat, 19.5% fever, vomiting, lethargy. Heart diseases was most common among comorbidity: hypertension (90.2%), coronary artery disease (78%). 65.9% elderly patients presented chronic kidney diseases, 56.1% anorexia, 61% had anemia,70.7% infections, 87.7% were taking diuretics. The study had weak positive correlation between HN and heart diseases (r=0.245), HN and kidney diseases (r=0.375), HN and use of diuretics (r=0.341) ($p<0.05$).
Conclusions: 1/3 of elderly patients had chronic HN and even half of them - moderate or severe HN. Elderly patients with mild HN felt weakness, fatigue, in moderate cases – nausea, headache, in severe cases – vomiting, lethargy. Elderly patients with HN statistically significant had heart and kidney diseases and were using diuretics

P-280
Analysis of survival in patients >75 years with gastrostomy according to the cause of indication

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Introduction: Gastrostomy is performed more and more frequently in elderly patients. A retrospective 5-year study evaluating the survival of the placement of gastrostomies according to the cause of the indication, whether it's for stroke or dementia, is proposed.
Method: We performed a data reconnaissance chart on patients with gastrostomy performed between 2011 and 2015, collecting different variables: patient age, gender, associated comorbidities, cause of gastrostomy indication, type of nutrition used, The Months that are alive after the implant or not and the cause of death. In this poster we'll focus on the analysis of survival according to the cause of indication of gastrostomy. On the one hand we have the ACVS and on the other hand the dementia (GDS3–7).
Results: n=177, ACVs: 33% (59) and Dementia: 66% (118) of the total sample. Within the ACVS group, mortality was 44.1% and in the dementia group 48.3%. The median survival in the stroke group was 17 months and that of dementias was 22 months.
Discussion: The group of patients in whom ACV gastrostomy was indicated had no significant differences (p: 0.86) in the group with indication of dementia, questionnaires in relation to the small number of cases.
Conclusions: The reason why gastrostomy is placed does not influence the survival of the same so it should not be a limiting factor at the time of application. It's necessary to carry out studies with a more sample to achieve a statistical significance.

P-281
Coffee consumption and fracture risk in older men and women: the Health, Aging, and Body Composition Study

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Introduction: Several studies suggest an association between consumption of coffee and risk of osteoporotic fractures. However, the results are inconclusive. In this study, we investigated the association between coffee consumption and risk of osteoporotic fractures in older men and women.
Methods: Data on 2542 well-functioning Black and White men and women aged 70–79 years at baseline were used. The median follow-up was 10.4 years. Coffee consumption was assessed with interviewer-assessed food frequency questionnaires, and categorized as less than 1 cup, 1 cup, 2–3 cups and 4 or more cups per day. Fractures were assessed every six months and verified with radiology reports. Multivariate-adjusted hazard ratios (HR) of fractures with 95% confidence intervals (CI) were estimated for men and women separately by Cox proportional hazard models.
Results: During follow-up, 392 participants (127 men and 265 women) experienced an osteoporotic fracture at any site. After multivariate adjustment for demographics, health and lifestyle factors, consumption of 4 or more cups of coffee per day, compared to less than 1 cup of coffee per day, was significantly associated with 1.63 times higher risk of osteoporotic fractures in women (HR: 1.63; 95%

CI: 1.04–2.57). No significant association was observed in men (HR: 1.54; 0.84–2.83).
Conclusions: Consumption of coffee was associated with increased risk of osteoporotic fractures in older women, but not in older men.

P-282
Comparison of the nutritional risk in the elderly over 75 years in home vs health care units

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Introduction: According to WHO, elderly people are especially vulnerable due to malnutrition, being related to many different factors. Our aim was to evaluate if patients from different cohabitation status had the same risk of undernutrition and evaluate contributing factors.
Methods: Retrospective descriptive study of all patients with >75 years old, admitted to the medical ward of a tertiary hospital during a one year period with a nutritional evaluation either by MUST or NRS. Patients were grouped according to habitation status home (H) vs health care unit (HCU) and compared per gender, age, autonomy (KATZ score), primary diagnosis, median length of stay and mortality.
Results: A total of 89 patients fulfilled the inclusion criteria with a median age of 83,7 years (37 with >85 years), 60 were female, 44 patients with nutritional risk, median length of stay of 9,89 days and mortality of 32,4%. Concernig the 2 groups: there were H 15 patients and HCU 74, the patients living in HCU were slightly older (83,9 VS 83,7 years), with a male prevalence (53% VS 28%), lesser autonomy with a KATZ <3 (73% VS 55,4%) and higher mortalty of 86% VS 14%. The risk ratio for nutritional risk in patients living in health care facilities patients was 2,06, but the risk ratio for mortality in patients with nutritional risk living at Home was 2,53
Discussion: Half of the population above 75 years old is at nutritional risk, that risk is even greater considering the population living in health care facilities. This study pretends to raise awareness on this subject, considering malnutrition is frequently related to poor outcomes. In our study the influence of malnutrition in mortality was more important in patients living at Home.

P-283
Developing a clinical diagnostic tool for the identification of older adults with hypovitaminosis D

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Introduction: Hypovitaminosis D is highly prevalent among older adults and associated with adverse health events. To rationalize vitamin D assays and save health costs, our objectives were to develop and test a clinical diagnostic tool for the identification of older community-dwellers with hypovitaminosis D.
Methods: 1924 community-dwelling volunteers ≥65 years without vitamin D supplements were recruited in this cross-sectional study. A set of clinical variables (age, gender, living alone, individual deprivation, body mass index, undernutrition, polymorbidity, number of drugs used daily, psychoactive drugs, biphosphonates, strontium, calcium supplements, falls, fear of falling, vertebral fractures, Timed Up & Go test, walking aids, lower-limb proprioception, handgrip strength, visual acuity, wearing glasses, cognitive disorders, sad mood) was recorded from standardized questionnaires and medical examination at the time of serum 25-hydroxyvitamin D (25OHD) measurement. Hypovitaminosis D was defined as serum 25OHD ≤75 nmol/L, ≤50 nmol/L or ≤25 nmol/L. The whole sample was separated into training and testing subsets to design, validate and test an artificial neural network (multilayer perceptron, MLP).
Results: 1729 participants (89.9%) had 25OHD ≤75 nmol/L, 1288 (66.9%) had 25OHD ≤50 nmol/L, and 525 (27.2%) had 25OHD ≤25 nmol/L. MLP using 16 clinical variables was able to diagnose hypovitaminosis D ≤75 nmol/L with accuracy = 96.3%, area under curv (AUC) = 0.938, and κ=79.3 indicating almost perfect agreement. It was also able to diagnose hypovitaminosis D ≤50 nmol/L with accuracy = 81.5, AUC=0.867 and κ=57.8 (moderate agreement); and hypovitaminosis D ≤25 nmol/L with accuracy = 82.5, AUC=0.835 and κ=55.0 (moderate agreement).
Conclusions: We developed an algorithm able to identify, from 16 clinical variables, older community-dwellers with hypovitaminosis D. Such inexpensive tool should help clinicians in decisions to supplement their patients without resorting to blood tests.

P-284
Development and validation of a short food questionnaire to assess low protein intake in community-dwelling older adults

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Introduction: In old age, sufficient protein intake is important to preserve muscle mass and function. We developed and validated a short food questionnaire to assess low protein intake in community-dwelling older adults.
Methods: We used data of 1392 older adults (>55 years) of the Longitudinal Aging Study Amsterdam. Protein intake was measured using a 220-item semi-quantitative food frequency questionnaire (FFQ). A restricted multivariate prediction model was built to predict protein intake >1.0 g/kg adjusted body weight, including original FFQ questions on frequency and amount of specific foods as independent variables.
Results: The final multivariate model included 13 questions (frequency and/or amount) on intake of bread, dairy dessert, milk, eggs, pasta, fish, meat, and cheese. The area-under-the-curve (AUC) was 0.861 (good discriminative ability).
Conclusion: The developed short food questionnaire can be used to validly assess low protein intake in community-dwelling older adults in the Netherlands. External validation in other countries is needed.

P-285
Dietary fat quality is associated with cognition, mobility and nutrient intakes in older populations

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Background: For the prevention of coronary heart disease, a diet with high polyunsaturated fatty acids to saturated fatty acids (PUFA:SFA) ratio has been recommended. We analyzed fat quality, defined as higher PUFA:SFA ratio and its associations with mobility, nutrition and cognition in heterogeneous groups of older people.
Methods: The cross-sectional study combined five nutritional studies including home-dwelling (n=526) and institutionalized (n=374) older people. Nutritional status was assessed, using Mini Nutritional Assessment (MNA) and nutrient intakes retrieved from 1–3-day food records. The participants were divided into quartiles corresponding to PUFA:SFA ratios. Background characteristics, mobility, cognition, energy, nutrient, and fiber intakes were classified according to the PUFA:SFA ratios.
Results: Higher PUFA:SFA ratios were linearly associated with mobility, cognition, education level and BMI. Protein, fiber and micronutrient intakes were positively, whereas total carbohydrate and sugar intakes were inversely associated with PUFA:SFA ratios.

Of the institutionalized participants, 80% were classified to the lowest PUFA:SFA ratio quartiles. MNA scores were linearly associated with higher PUFA:SFA ratios in institutionalized participants, but inversely associated with home-dwelling participants. In home-dwelling participants, cognition and age was linearly associated with higher PUFA:SFA ratios.
Conclusion: Higher PUFA:SFA ratios were associated with several positive characteristics of older people, including better mobility, education, cognition, nutrient intake and diet quality. The institutionalized participants had lower fat quality and nutrient density than the home-dwelling participants. Interestingly, in home-dwelling older people both cognition and age were associated with higher PUFA:SFA ratios although age is usually a determinant of cognitive decline.

P-286
Does diabetes still imply disability in the elderly?

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Introduction: The impact of diabetes on the quality of life of older people (≥75 years) is not completely understood. It is commonly believed that, owing to the occurrence of severe long-term complications, the disease tends to accelerate the progression of functional deterioration. A case-control study on elderly diabetics from Sardinia aged 75 is currently underway in order to investigate the relationship between diabetes and functional disability.
Methods: Currently, 27 outpatient diabetics with known disease duration have been recruited, as well as 27 controls aged ≥75 years. In both groups, a Comprehensive Geriatric assessment was performed, including ADL, IADL, Barthel, MMSE, GDS and MNA scales. Differences between the two subgroups were tested statistically.
Results: In diabetics, average disease duration was 15.7±10.5 years. Mean values of disability indexes in diabetics and controls were respectively: Barthel 91.7±10.7 and 93.1±10.3; ADL 5.5±0.6 in both groups; IADL: 6.2±1.9 and 6.42±1.8. The mean MMSE values were 25.7±2.5 and 26.3±2.5 respectively, while GDS values were 6.2±1.9 and 3.1±3.1. MNA score was 24.3±3.0 in diabetics and 25.2±3.6 in controls. None of differences were significant.
Conclusions: These preliminary results suggest that diabetes does not necessarily have a significant impact on functional autonomy of the elderly, even in the case of long-term illness. The current study aims to analyze a final case of 200 subjects in order to strengthen the results obtained.

P-287
Energy need and energy intake according to the body mass index among patients hospitalized in an acute geriatric unit

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Background: The aim of this study was to measure the energy need and the energy intake among patients hospitalized in an acute geriatric unit regarding to their Body mass index (BMI).
Methods: Energy need or total energy expenditure (TEE) is the energy used by the human body for daily function, is a combination of rest energy expenditure (REE), energy used during substrate metabolism and energy used in physical activity. REE was measured by indirect calorimetry. Energy intake (EI) was measured over a 3-day period. Cut off of BMI was defined according the European society of enteral and parenteral nutrition (ESPEN) and the World Health organization (WHO).
Results: Seventy-nine patients hospitalized in acute geriatric unit were evaluated (77% of women, 82.4±16.3 years on average). Prevalence of malnutrition was 34%. REE and TEE were significantly and conversely correlate with the BMI. The lower was the BMI and the higher were the REE and the TEE (REE was 21±3.4 Kcal/kg/j in BMI <18.5 kg/m^2 vs 14.4±1.7 Kcal/kg/j in BMI >30 kg/m^2) (p=00001 vs p=0.009). The EI were also significantly and conversely correlate with the BMI (EI was 37.3±11 Kcal/kg/j in BMI <18.5 Kcal/kg/j and 26.3±5.35 Kcal/kg/j in BMI >30 Kcal/kg/j) (p=0.0004).
Conclusion: In patients hospitalized in an acute geriatric unit, the energy need is correlated to the BMI, which suggests that the energy requirements to maintain body weight are higher with the decrease in BMI. Energy intake are correlated with the energy need and increase with the increase of BMI.

P-288
Energy need and energy intake among patients hospitalized in an acute geriatric unit

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Background: The aim of this study was to compare the energy need and the energy intake among patients hospitalized in an acute geriatric unit.
Methods: Energy need or total energy expenditure (TEE) is the energy used by the human body for daily function, and a combination of rest energy expenditure (REE), energy used during substrate metabolism and energy used in physical activity. REE was measured by indirect calorimetry. Energy Intake (EI) was measured over a 3-days period. Three groups of population were defined: sarcopenic, undernourished and frail (moderate and severe). Sarcopenia was diagnosed according to the criteria of European working group of sarcopenia in older people (EWGSOP), undernutrition by the criteria of European society of parenteral and enteral nutrition (ESPEN), and frailty by the Edmonton scale.
Results: Twenty-nine patients hospitalized in acute geriatric unit were evaluated (77% of women, 82.4±16.3 years on average). Prevalence of malnutrition was 34%, sarcopenia was 32%, moderate frailty was 35% and of severe frailty was 57%. TEE was significantly lower than energy intake among all population, malnourished, well-nourished, sarcopenic, moderately and severely frail patients.
Conclusion: In patients hospitalized in an acute geriatric unit, the energy intake seemed to be sufficient to cover TEE, regardless their nutritional status. Therefore, food rations can be adapted according the geriatric profile.

P-289
Evaluation of quality indicators for obesity in patients under 17 years in primary care

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Background and aim: Study on the quality of clinical care provided to patients under 17 years with Obesity assigned to a medical practice (during the period 2015).
Method/Design: Longitudinal evaluation: Palmer's Quality Cycle. Setting: An urban health care center. Population and sample: Patients (total according to inclusion criteria, year 2014) with obesity (year 2015) (n=120). Interventions: Internal evaluation, dimensions: scientific-technica, quality, adequacy, accessibility, continuity of care; data related to the care process and intermediate results; explicit, evidence-based procedural criteria. Subjects: Analysis of coverage. Analysis on the evolution of treatment compliance. The Z statistical test for comparing proportions, alpha 0,05.
Results: Compliance criteria (year 2015): Population ≤17 years: 2276. Obesity prevalence: 5,27% (120 patients). Overweight preva-

lence: 3,73% (85 patients). Patients with Obesity with two BMIs recorded in 2015: 24 patients. Patients with Obesity with two BMIs registered and have reduced two measures in 2015: 11 (9,17%).
Conclusions: Establish a plan of intervention activities to improve results: diagnosis and control of Obesity to avoid complications.

P-290
Factors associated with vitamin D deficiency in the elderly: the Korean National Health and Nutrition Examination Survey 2010-2012

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Introduction: The aim of this study was to evaluate risk factors associated with vitamin D deficiency and its prevalence in Korean non-institutionalized adults aged 65 or older.
Methods: The study subjects (n=2,687) were individuals who participated in the Korean National Health and Nutrition Examination Survey (KNHANES) in 2010–2012. Vitamin D deficiency was defined as a serum 25-hydroxyvitamin D concentration <20 ng/mL. The logistic regression analysis was done to determine the association between vitamin D deficiency and sex, smoking status, physical activity, alcohol consumption, sleep duration, chewing difficulty, energy intake, calcium intake, skipping meal, and metabolic syndrome.
Results: The prevalence of vitamin D deficiency was 56.7%. Multiple logistic regression analysis showed that independent predictors of vitamin D deficiency were female, BMI ($\geq$25kg/m^2), current smoker, low energy intake (male <2,000 kcal/day, female <1,600 kcal/day), skipping breakfast, low intensity physical activity, moderate intensity physical activity, sleep duration (<7 hours/day), and metabolic syndrome ($P<0.05$).
Conclusions: In Korean older adults, vitamin D deficiency is very common and is at increased risk for health risk factors related with lifestyle. These results suggest that unhealthy lifestyle in the elderly may be associated with vitamin D deficiency.

P-291
Fluid prescription in the elderly

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Introduction: A critical aspect in the care of elderly patients is fluid administration; an integral part of patient's treatment to prevent and restore abnormal body fluid and electrolyte loss. Elderly patients are particularly vulnerable to complications of fluid administration.[1,2] The aim of the audit is to assess for appropriate documentation of fluid prescription of the geriatric population at St Vincent De Paul long term facility (SVP) and to assess the compliance of prescribers with the standard guidelines.
Methods: The geriatric population at SVP under the care of all geriatric firms, who were prescribed fluids during the preceding 24hours in a 5-day period in May 2016 was selected. Data from medical and nursing notes, fluid balance charts, observation charts and computerised results system on iSoft®. Results were compared to international studies.[3] The standard used was the National Institute of Health and Care Excellence (NICE) guidelines – "Intravenous fluid therapy in adults in hospital" published in 2013.[4].
Results: Thirty patients were being administered fluid therapy; all prescribed as part of the medical notes with no documentation regarding stop or review date. Physicians documented limited intake in 23% (n=7) patients, abnormal losses in 3% (n=1) and requested parameters charting in 43% (n=13) patients. A request for catheterisation was documented in 47% patients (n=14). In none of the patients, initial or daily weight was requested.
Conclusion: This clinical audit has shown that prescribing, administering and monitoring of fluid administration can be improved. A local fluid prescribing guideline and prescription fluid chart were developed for rational, standardised and accurate documentation of the administration of fluid.
References:
[1] Gao X, Huang KP, Wu HY, Sun PP, Yan JJ, Chen J et al. Inappropriate prescribing of intravenous fluid in adult inpatients – a literature review of current practice an research. Journal of clinical pharmacy and therapeutics 2015;40:489–495
[2] Sansom LT, Duggleby L. Intravenous fluid prescribing: improving practices and documentation in line with NICE CG174 guidance. BMJ quality improvement reports 2014; 3–8
[3] Ferenczi E, Datta SS, Chopada A. Intravenous fluid administration in elderly patients at a London hospital: a two-part audit encompassing ward-based fluid monitoring and prescribing practice by doctors. Int J Surg 2007;5:408–12
[4] National institute for health and care excellence. [Internet] Intravenous fluid therapy in adults in hospital [published 2013 Dec 10; cited 2017 Apr 4]. Available from: https://www.nice.org.uk/guidance/cg174/resources/intravenous-fluid-therapy-in-over-16s-in-hospital-35109752233669

P-292
Handgrip strength among Thai elderly

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Introduction: The physical of elderly had changed, which included muscle power and muscle mass. The muscle strength was measured from hand grip strength (HGS). This research studied HGS and nutritional status of Thai elderly (aged 60 years or older), who lived in Nakhon Ratchasima province.
Design: A cross-sectional analytic study Methods: Assessment of HGS of the dominant hand followed standardized testing procedures as per the American Society of Hand Therapists [1] using the Jamar handheld dynamometer. Measured body mass index (BMI) was calculated as weight in kilograms divided by height in meters squared. The subjects were classified as: underweight (BMI <18.5); normal (18.5 < BMI <22.9) and overweight (BMI >23) [2].
Results: A total of 491 elderly were studied and the mean (+ SD) age was 69.15+6.86 (from 60 to 90) years. When comparing between elderly males and females, it was found that an elderly male group had higher height, higher weight, and higher HGS than an elderly female group (p-value =0.00). When considering HGS of overall elderly, which divided according to BMI, it was found that the elderly with normal weight and overweight had higher HGS than those who were in a group of underweight (p-value =0.00).
Conclusion: The mean value of the dominant HGS in the elderly was significantly higher in elderly males when compared to elderly females. Furthermore, elderly with underweight is associated with poorer HGS than elderly with normal weight or overweight.
References:
[1] Fess E. Grip strength. In: Casanova J, ed. Clinical Assessment Recommendations. Chicago: American Society of Hand Therapists, 1992; 41–5.
[2] WHO expert consultation. Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies. Lancet 2004; 363: 157–63.

P-293
Human albumin prescription among the elderly

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Introduction: The most important nutritional disorder in the elderly is malnutrition, which is associated with increased mortality and reduced quality of life. Serum albumin levels allow the identification of patients at high risk for malnutrition.
Materials and methods: This is a descriptive retrospective study, aiming to characterize the prescribing policy for human albumin in the population over 64 years of age, admitted in the Internal Medicine ward, within January 1st and December 31st, 2016. Patients were identified through data obtained from pharmacy services. The data collection was performed through consultation of clinical processes and analyzed using Excel.
Results: One hundred and ninety-seven admissions were analyzed, of which 134 were included, corresponding to 99 patients, with a mean age of 81.2±6.7 years, mainly men (79%). In 81% of the prescriptions, patients had a Charlson index above 6 and a Katz index of 6 in 25% of patients and 0 in 24%. In 57% of the cases albumin prescription, patients died during hospitalization or during the first 30 days after discharge. The average duration of albumin prescription was 3.7 days, with an average dose of 21.5g per patient. The most frequent reason for prescribing human albumin was the correction of hypoalbuminemia (49%).
Conclusion: Human albumin was prescribed to patients with high comorbidities and hypoalbuminemia, both associated with malnutrition. The mortality was high, which was expectable due to the high rate of comorbidities. It is important to correct all the factors that contribute to malnutrition, more than correcting hypoalbuminemia itself.

P-294
Identification of fatty acid biomarkers in human longevity

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Introduction: Human longevity is a multifactorial condition with genetic, environmental and behavioral contributions. Fatty acid metabolism may play a role in maintaining lifelong tissue homeostasis by modulating the formation of fatty acid–derived molecules such as endocannabinoids, eicosanoids and recently discovered lipokines such as palmitoleic acid (cis-9-hexadecenoic acid, POA), which influence inflammatory response, insulin resistance, proliferative stimuli and neuroinflammation, all factors involved in major age-related chronic disorders such as atherosclerosis, cancer, diabetes and neurodegenerative diseases.
Methods: In the present study, we aimed to evaluate the fatty acid metabolism, namely plasma levels of eicosanoids, endocannabinoids and lipokines in a cohort of apparently healthy Sardinian subjects of different age groups (range 50–90) living in areas within the island characterised by relatively higher and lower longevity levels. All subjects were substantially healthy, had normal cognitive capacity, were functionally independent and well nourished.
Results: Plasma fatty acid profile revealed a peculiar pattern in the elderly of the high-longevity areas with respect to either age-paired individuals or younger from other areas. Specifically, POA levels, POA/palmitate ratio, and the levels of some endocannabinoids were significantly increased, especially in oldest subjects. Dietary records strongly suggested that this peculiar fatty acid profile was not related to dietary fatty acid intake, but rather to activation of specific metabolic pathways, which in turn may determine a more favorable tissue homeostatic control.
Conclusions: Our results suggest that well-defined fatty acid metabolic changes could help to trigger an adequate physiological response against adverse stimuli that may potentially lead to age-related disorders.

P-295
Impact of nutritional status in elderly patients with acute myocardial infarction

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Background: Malnutrition is a common condition in the elderly population and is associated with reduced physical performance, prolonged hospitalization and increased mortality. However, the prevalence and impact of malnutrition among elderly patients with acute myocardial infarction (AMI) is still poorly studied.
Methods and results: We prospectively enrolled 167 consecutive elderly patients (age≥65 yrs; mean age=73,7±6,6 yrs) admitted at Intensive Coronary Care Unit (ICCU) for AMI (51,4% STEMI). Demographic, clinical, laboratoristic and echocardiography data were collected at the time of ICCU admission, together with questioners included in the geriatric multidimensional evaluation (i.e. Mini nutritional assessment [MNA], ADL, IADL, SPMSQ, Exton-Smith, CIRS). According to MNA score, 73 patients (51,4%) presented a good nutritional status (MNA≥24) while 14 (9,9%) presented malnutrition (MNA<17) and 55 (38,7%) were at risk for malnutrition. Dichotomizing our study population in two groups, malnutrition plus at risk for malnutrition (69 patients, 48,6%) and good nutritional status (73 patients, 51,4%), we found that these two groups were homogeneous for demographic characteristics and clinical, laboratoristic and instrumental data, but were different for the majority of the geriatric scales measured (Table). Importantly, poor nutritional status was associated with higher 6-month mortality rate (26,1% vs 5,5%; p<0,001). At multivariate cox regression analysis, among 13 variables tested MNA emerged as independent predictor of short-term mortality, together with GRACE score, LVEF and type of AMI (Table). Kaplan-Mayer Survival analysis confirmed that the group with good nutritional status had a significant better survival compared to the group with malnutrition or at risk for malnutrition (longrank p<0,001).
Conclusions: Nutritional status is an independent predictor of short-term mortality among elderly patients with AMI. Measurement of MNA score in elderly patients with AMI may help prognostic stratification and identification of patients with/at risk of malnutrition in order to apply interventions to improve nutritional status.

P-296
Innovative food products for oral nutrition supplements: opportunities for food companies?

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Introduction: Despite the growing attention in recent years, malnutrition remains a major problem in healthcare and at home for a growing group of elderly people. This study investigated the opportunities and barriers for innovative food products and concepts as alternative to oral nutrition supplements (ONS) in market of malnutrition in The Netherlands.
Methods: In a qualitative study, semi-structured interviews were

held with 11 different stakeholders involved in malnutrition: Representatives from two ONS producers, two home care companies, two caterers, dieticians from two hospitals, representatives from a food producer, an insurance company and a nursing home.
Results: This study showed that awareness of malnutrition is gradually increasing. ONS products and innovative food products are seen as complementary products, but evidence-based proven effectiveness of these products is required. Main opportunities are: the stepped care treatment of malnutrition, tendency towards patient self-management and increase of knowledge on and treatment of malnutrition in both secondary and primary care. Barriers for innovation are financial limitations, organizational complexity and low awareness of these products and of malnutrition in primary care. Key factors to success are that these products are tasty, offer variation and are proven (cost)-effective.
Conclusion: The market of malnutrition is open for large business potential. Healthcare organizations are implementing new food concepts in order to address the problem of malnutrition in their organizations, offering opportunities for industry to collaborate with these organizations and develop new products to combat malnutrition.

P-297
Input of multidimensional phenotyping in the metabolic syndrome stratification

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Introduction: Metabolic syndrome (MetS) is defined by a cluster of cardio-metabolic factors including obesity, hypertension, dysglycemia, and dyslipidemia. It affects a growing number of persons, in particular older adults often suffering from multiple chronic diseases, and its prevalence is now a public health challenge. In the context of personalized medicine/nutrition, new tools are necessary to bring additional knowledge about MetS etiology, better stratify populations and customise strategies for prevention.
Methods: A nested case-control study on MetS was designed within the Quebec Longitudinal Study on Nutrition and Successful Aging (NuAge). It includes 61 cases and 62 controls of similar age (68–82 y.o.), selected among the 853 men. Both targeted and untargeted metabolomic/lipidomic approaches, available within the MetaboHUB French infrastructure [1], will be performed on serum samples collected at recruitment 2003–2005 (T1) and three years later (T4). Data analysis will be performed using reproducible online Galaxy workflows [2].
Results: The metabolomic/lipidomic data will be processed to identify specific signatures of MetS and its components, and study their stability over time. Then, these data will be analysed for evaluation of a molecular reclassification of the MetS phenotype. Finally, they will be integrated with phenotypic and detailed nutritional data available to better characterize sub-phenotypes.
Conclusion: The approach developed here will open a door for a more comprehensive understanding of the metabolic phenotype resulting from the complex interplay between intrinsic and extrinsic factors. Thus, this project will allow an improved description of MetS associated characteristics and will offer new tools for better patient stratification in elderly populations.
References:
[1] http://www.metabohub.fr
[2] http://workflow4metabolomics.org

P-298
Longitudinal associations of nutritional status and body composition with outcomes in the elderly, the effect of dietary advices – preliminary results

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Introduction: We aimed to investigate body composition (BC) and nutritional status (NS) of the elderly in the internal medicine outpatient clinic (IMOC), and the relationships between each other, and to follow them after dietary advice.
Methods: Patients with ≥65 years of age in the IMOC were included in the study. Mean age, body mass index (BMI), waist-hip circumference, waist/hip ratio, fat-free mass and index, Mini Nutritional Assessment –Short Form score, prealbumin and high-sensitivity CRP levels, calf circumference were measured. Patients who are assessed by the same dietitian and evaluated as at risk of malnutrition were advised protein and energy – rich diets when applicable. Patients will be followed in the first 6 months for NS, BC, gait speed and hand grip strength; after 12 months for activities of daily living (ADL) -Instrumental ADL (IADL) disability, institutionalization, hospitalization, falls-fall related injuries, and mortality. We are presenting the first cross-sectional results.
Results: A total of 85 patients with ≥65 years of age were included in the study. All were independent in ADL and IADL. Age of 38 patients (44.7%) were <70 years of age, where 47 (55.3%) were ≥70 years of age. There was no difference in BMI groups classified as normal weight, obese or underweight between age groups > and <70 years of age (P=0.46).
Conclusions: Most (98,8%) of the elderly patients consulted by the dietician in a period of time were normal to obese for BMI which is interesting for BC of IMOC elderly patient profile.

P-299
Nutritional needs among sarcopenic patients: a study using indirect calorimetry

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Background: The aim of this study is to assess the energy need of patients with sarcopenia.
Methods: Rest energy expenditure (REE) is the energy required to maintain the body's basic cellular metabolic activity and organ functions. REE was measured by indirect calorimetry, at rest, at fasting and without physical or psychological stress. Total energy expenditure (TEE) is defined as the amount of energy used by the human body for daily function, it is a combination of REE, energy used during substrate metabolism and energy used in physical activity. Nutritional assessment has been performed by the Mini Nutritional Assessment (MNA). Sarcopenia was defined according the criteria of the European Working Group on Sarcopenia in Older People (EWGSOP).
Results: Twenty-nine patients (77% of women, 82.4±16.3 years on average) hospitalized in acute geriatric unit were evaluated. The prevalence of sarcopenia was 32%. Sarcopenia was associated

with lower Mini nutritional assessment (MNA) (p=0.003), lower Body mass index (BMI) (p<0.0001). RRE was 978±262 kcal/d in sarcopenic patients, significantly lower than in non sarcopenic patient (1120±167 kcal/d) (p<0.004). TEE was 1564±272 kcal/d in sarcopenic patients significantly lower than in non sarcopenic patients (1706±228 kcal/d) (p<0.02). REE in sarcopenic patient was 17.7±3 kcal/kg/d.
Conclusion: TEE was lower in sarcopenic patients than in non sarcopenic patients. REE in sarcopenic patient is similar to the REE observed in elderly hospitalized patients, about 18 kcal/kg/d.

P-300
Nutritional risk in the elderly – Living at home vs health care units

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Introduction: According to WHO, elderly people are especially vulnerable due to malnutrition, being related to many different factors. Our aim was to evaluate if patients from different cohabitation status had the same risk of undernutrition and evaluate contributing factors.
Methods: Retrospective descriptive study of all patients with >75 years old, admitted to the medical ward of a tertiary hospital during a one year period with a nutritional evaluation either by MUST or NRS. Patients were grouped according to habitation status home (H) vs health care unit (HCU) and compared per gender, age, autonomy (KATZ score), primary diagnosis, median length of stay and mortality.
Results: A total of 89 patients fulfilled the inclusion criteria with a median age of 83,7 years (37 with >85 years), 60 were female, 44 patients with nutritional risk, median length of stay of 9,89 days and mortality of 32,4%. Concernig the 2 groups: there were H 15 patients and HCU 74, the patients living in HCU were slightly older (83,9 VS 83,7 years), with a male prevalence (53% VS 28%), lesser autonomy with a KATZ <3 (73% VS 55,4%) and higher mortalty of 86% VS 14%. The risk ratio for nutritional risk in patients living in health care facilities patients was 2,06, but the risk ratio for mortality in patients with nutritional risk living at Home was 2,53.
Discussion: Half of the population above 75 years old is at nutritional risk, that risk is even greater considering the population living in health care facilities. This study pretends to raise awareness on this subject, considering malnutrition is frequently related to poor outcomes. In our study the influence of malnutrition in mortality was more important in patients living at Home.

P-301
Nutritional risk in the elderly in an Internal Medicine ward

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Introduction: Malnutrition is a determinant of health, associated with a global decline in function and poorer outcomes. It is under diagnosed in the elderly, though nutritional deficiencies are present in 20–65% of hospitalized elders.
Methods: Retrospective descriptive study of patients with >65 years, admitted to the medical ward (tertiary hospital) for 1-year, with a nutritional evaluation either by MUST or NRS. The patients were grouped in A (at risk) and N (no risk) and characterised by gender, age, autonomy (Katz Score <4 dependent, or >4 autonomous), primary diagnosis, mean length of stay and mortality. Comparison between groups was done with proportions and the mortality evaluated with risk ratio.
Results: 131 patients were included, with a mean age of 79,1years (37 patients >85years), of which 83 female, 67 patients (61.1%) were dependent. Concerning the groups 64 were NR and 67 AR, with no difference by gender (NR:AR - fem 0,9 and masc 1), age (NR:AR - <75 years 0,9, 75–85 years 1,08 and >85 years 0,85) and Katz (NR:AR - autonomous 0,82 and dependent 0,76). In AR group, there was a higher prevalence of respiratory diseases (1.57), renal (2.75), neoplasia (3), but not cardiovascular diseases (0.44). Mean length of stay was higher for AR (11,27) vs NR:9,82. Mortality in AR patients had a RR of 8.93.
Discussion: In our small sample, almost half the patients were at risk of malnutrition. Patients with a risk of malnutrition had a longer length of stay, with greater costs and higher mortality.

P-302
Nutritional status, functional status and mortality in the Caucasian elderly and oldest-old: Results of the PolSenior study

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Introduction: Obesity increases the risk of aging-related diseases, disability and mortality.
Methods: Four thousand six hundred twenty-four seniors aged ≥65 years completed a detailed questionnaire and underwent medical examination. Their survival was taken from the Population Register.
Results: Approximately 34% of seniors were obese (38.42% women, 25.52% men) and 88.55% had abdominal obesity (89.2% women, 72.61% men). Median BMI, waist (WC) and arm (AC) circumference decreased with age in both genders (all p<0.001). The percentage of obese seniors and these with abdominal obesity also decreased (both p<0.001). Notably, the higher ADL score, the higher were median BMI, WC and AC values (all p<0.001). In multivariate analysis taking age into account, all three body measurements remained independent predictors of physical performance in women (p=0.008, p=0.004 and p<0.001, respectively), while in men only AC (p<0.001). Similarly, the higher MMSE score, the higher were median BMI, WC and AC values (all p<0.001). In multivariate analysis, all three measurements remained significant predictors of cognitive performance in women (p=0.001, p=0.002 and p<0.001, respectively), while in men only AC (p<0.001). There was no association between the number of aging-related diseases and BMI or WC or AC. In individuals aged ≥80 years, overweight and obesity were associated with the highest probability of survival (both genders p<0.001), as were abdominal obesity (women p=0.0011, men p<0.001) and the highest AC (both genders p<0.001).
Conclusions: In seniors, overweight and obesity are associated with better physical and cognitive function, and with a higher probability of survival.

P-303
Obesity survival paradox in older-cancer patients: results from the Physical Frailty in Elderly Cancer patients (PF-EC) cohort study

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Background: The obesity survival paradox is an emergent issue in oncology, but its existence remains unclear particularly in older cancer patients.
Methods: All consecutive outpatients 65 years and older referred for geriatric oncology assessment (GA) before a therapeutic decision between November 2013 and September 2016 were enrolled in the PF-EC cohort study. A Cox proportional hazard regression model was performed in non-survivors for GA, oncologic variables (cancer site, extension and treatment modalities) and C-reactive protein (CRP). Obesity was defined as a body mass index (BMI) $\geq$30 kg/m^2. A stepwise procedure was conducted to assess the specific effect of each predictor. We created three models to adjust BMI categories for sex and geriatric variables (model 1), oncologic variables (model 2) and C-reactive protein (model 3).
Results: 433 patients with a mean age of 81.2±6.0 years were included, of whom 51% were women. Eighty-six of these patients (20%) were obese at baseline. Seventy-three patients (17%) died during the 6-month follow-up period. Obesity was negatively and independently (age, sex, Mini-Mental State examination, local status, best supportive care and CRP) associated with overall 6-month mortality after stratification by cancer site. This association was strengthened after adjustment for gait speed. KEY
Conclusions: Our study confirms the obesity survival paradox in older cancer patients. This paradox seems closely linked with the metabolic healthy obese phenotype, which exhibits better survival.

P-304
Optimized selection process to identify a metabolic syndrome metabolomic/lipidomic signature in older adults of the NuAge cohort

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Introduction: Metabolic syndrome (MetS) is characterized by a cluster of risk factors including obesity, metabolic dysregulations such as insulin resistance, hypertension, and dyslipidemia, raising the risk for type 2 diabetes development and its complications. It involves multifaceted processes at multiple levels that are still far from being understood. New tools are therefore necessary to bring new knowledge about MetS, better stratify populations and customise strategies for its prevention and/or reversal.
Methods: The Quebec Longitudinal Study on Nutrition and Successful Aging (NuAge) regroups 853 men and 940 women, aged 68–82 at recruitment in 2003–2005 (T1) and followed up annually for three years (T2-T4). In the present study, a nested case-control study on MetS was designed to identify a metabolomic/lipidomic signature of MetS in older men, reflecting its phenotypic spectrum. An optimized participant selection strategy was developed based on presence and number of MetS criteria, including medication, their stability over 3 years, as well as the identification of outliers.
Results: The final selection included 123 men, 61 cases and 62 controls, with similar age and partial overlap of values defining MetS. This design is necessary to precisely detect and estimate the amplitude of metabolic deviations among the massive data sets, at an individual metabolite level as well as for a multivariate description.
Conclusion: This selection process, optimized to limit cofounding effects, will allow identifying specific metabolomic/lipidomic signatures along with significant features for sample classification. Thus, one complex molecular phenotyping will provide a new approach/tool for a better MetS stratification in elderly.

P-305
Predictors of incident malnutrition in older nutritionDay participants in nursing homes – a MaNuEL secondary data analysis

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Introduction: Malnutrition in nursing home (NH) residents is associated with poor outcomes. For the prevention of malnutrition, the knowledge of risk factors is crucial. Therefore, we were interested in predictors of incident malnutrition in older NH residents.
Methods: NH residents participating in the nutritionDay project (nD) between 2007 and 2014, aged $\geq$65 years with complete data on malnutrition at enrolment (previous weight loss (WL) >5kg or BMI <20kg/m^2) and 26 potential predictors were included. Incident malnutrition was defined as WL $\geq$10% or BMI <20kg/m^2 at 6-month follow-up. All variables were separately analysed in univariate generalized estimated equation (GEE) models with NH-unit as cluster variable. Significant ($p<0.05$) variables were selected for multivariable GEE analyses. Effect estimates are presented as Odds ratios (OR) and their respective 95%-confidence intervals (95%-CI).
Results: The incidence of malnutrition was 12.1% (n=701, n total=5,814). Female gender (vs. male: OR 1.33, 95%-CI [1.06; 1.65]), no intake at lunch (OR 2.92 [1.85; 4.60]) or only a quarter (OR 2.38 [1.79; 3.16]) or half (OR 1.60 [1.34; 1.93]) of lunch intake (vs. complete intake), lower BMI (OR 0.935 [0.91; 0.96]) and increasing number of days in hospitals (OR 1.05 [1.03; 1.06]) remained as significant parameters in the final model (aROC 0.66 [0.64; 0.68]).
Conclusions: According to nD data, particular attention should be paid to vulnerable groups, such as females, persons with low BMI, poor meal (lunch) intake, and residents with hospital stays to prevent malnutrition in nursing home residents.
Conflict of interest: None declared

P-306
Prevalence and associated factors of overweight and obesity among older Iranian adults: Findings from a population-based study (Urban HEART-2)

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Introduction: The elderly obese are at increased risk of mortality

and morbidity of many obesity-related chronic diseases, such as hypertension, diabetes and coronary heart disease. This study examined the prevalence and associated factors of overweight and obesity among older Iranian adults based on the Urban HEART-2 study in Tehran, Iran.

Methods: In this large cross-sectional population-based study, data on 15069 persons 60 years and older, the participants of second round of the Urban Health Equity Assessment and Response Tool (Urban HEART-2) which had been selected based on a multistage, cluster sampling in Tehran, Iran, in 2011, were analyzed. All the participants were interviewed and the information regarding the self-reported weight and height and socio-demographic variables were gathered. Predictors of overweight (Body Mass Index [BMI]=25.0–29.9 kg/m^2) and obesity (BMI>30 kg/m^2) relative to normal weight (BMI=20.0–24.9 kg/m^2) were examined using logistic regression analyses.

Results: The mean age of the participants was 68.93±7.27 years and of the total study population, 54.8% were male. Among older adults, 2.2% was found to be underweight, 40.1% normal weight, 40.8% overweight, and 17% obese. Multivariate logistic regression showed that being female, being married, having low levels of education, being retired, lack of history for smoking and being in early stages of aging are risk factors for overweight and obesity in this population.

Conclusions: This study showed a high prevalence of overweight and obesity among older adults living in Tehran. This finding points to the need of educating healthy life style and healthy eating habits to Iranian older adults and also designing and implementing more effective weight-control interventions for overweight older people to have a longer and healthier life.

P-307
Prevalence of poor appetite and associated conditions among community dwelling older adults in Iceland: Age, Gene/Environment Susceptibility-Reykjavik study

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Background: Poor appetite is common among hospitalized older adults or nursing home residents which may lead to inadequate dietary intake and weight loss. However, the prevalence of poor appetite among community-dwelling older adults and its contributing risk factors has been little explored. The aim of the study was to investigate the prevalence of having poor appetite among community-dwelling older adults and its associated conditions.

Methods: It is a cross-sectional study design. A large community-based population residing in Reykjavik, Iceland participated in the Age, Gene/Environment Susceptibility-Reykjavik Study (n=5764). Appetite and its associated conditions were evaluated by questionnaire. Poor appetite was defined for having conditions or illnesses associated with poor appetite. The questionnaire included poor appetite related list of illnesses and conditions with the additional open question for other reasons of poor appetite.

Results: Among 5764 study population, 804 people reported having appetite problem (n=804, 15%). The reported illnesses contributing to poor appetite were teeth, dysphagia, taste, smell, and indigestion such as pain and bloating in stomach, and diarrhea. Among those reported illnesses associated with appetite, the poor digestive related condition had the highest prevalence (50%).

Conclusion: Appetite is a subjective experience which is difficult to measure. Our study explored the prevalence of poor appetite with detailed questions about major illnesses and conditions associated with appetite among community-dwelling older adults. The digestive related problem was the most associated condition for having poor appetite among community-living older adults.

P-308
Ready-meal consumption in older people: associations with nutritional status and dietary intake

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Introduction: Difficulties with cooking are prevalent in older persons [1]. One way to simplify meal preparation and thus maintain independence in food intake is the use of convenience food [2]. Ready-meals are often low in protein and rich in energy [3], which could have a negative impact on nutritional status [4]. However, studies investigating associations between ready-meal consumption, nutritional status and dietary intake are lacking, particularly in older adults.

Objectives: We examined whether diet quality and malnutrition are associated with ready-meal consumption in older French people.

Methods: This is a secondary analysis using data from the Multidomain Alzheimer Preventive Trial (MAPT). Diet quality and ready-meal consumption were assessed in 421 subjects who fulfilled a food frequency questionnaire, using mPNNS-GS. BMI was used to assess malnutrition signed by underweight (BMI <21 kg/m^2) or overweight/obesity (BMI >25 kg/m^2). Adjusted multiple linear regressions were performed.

Results: Older participants, those with a lower education level, with lower physical, cognitive and/or functional status, with more depressive symptoms and declaring more difficulties with cooking consumed significantly more ready meals ($p<0.05$). In multivariate analysis, weekly ready-meal consumption was associated with a lower diet quality ($p=0.037$) but not with nutritional status ($p=0.603$). Moreover, the more ready meals people consumed, the more they judged their dietary quality to be poor.

Conclusions: In our population, ready-meal consumption was higher in older people with age-related impairments, lower education levels and more depressive symptoms, but this was not associated with a lower nutritional status or diet quality.

References:

[1] M. Ferry, B. Sidobre, A. Lambertin, and P. Barberger-Gateau, The SOLINUT study: analysis of the interaction between nutrition and loneliness in persons aged over 70 years, J. Nutr. Health Aging, vol. 9, no. 4, pp. 261–268, Aug. 2005.

[2] Convenience foods and health in the elderly - Maturitas. [Online]. Available: http://www.maturitas.org/article/S0378-5122(15)00826-9/abstract. [Accessed: 11-May-2017].

[3] J. Remnant and J. Adams, The nutritional content and cost of supermarket ready-meals. Cross-sectional analysis, Appetite, vol. 92, pp. 36–42, Sep. 2015.

[4] K. van der Horst, T.A. Brunner, and M. Siegrist, Ready-meal consumption: associations with weight status and cooking skills, Public Health Nutr., vol. 14, no. 2, pp. 239–245, Feb. 2011.

P-309

Regression tree analysis and detection of hypovitaminosis D: a cross-sectional hospital-based study

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Introduction: Hypovitaminosis D is common among geriatric patients. The correction of hypovitaminosis D is not recommended without assessing the vitamin D status at first. To reduce costs linked to blood tests, we hypothesized that hypovitaminosis D could be diagnosed using clinical criteria. Our objective was to identify the clinical profiles of geriatric patients with hypovitaminosis D.
Methods: 156 participants ≥75years taking no vitamin D supplements and consecutively admitted into the department of geriatric medicine of Angers University Hospital, France, were included in this analysis. Hypovitaminosis D was defined as serum 25-hydroxyvitamin D concentration ≤75 nmol/L. An age-adjusted regression tree (CHAID algorithm) was used to determine the clinical profile of participants with hypovitaminosis D based on risk factors for hypovitaminosis D (age, gender, sun exposure, ethnicity, consumption of fatty fish and eggs, BMI, weight loss, oral mycosis, renal failure, use of anti-epileptics or glucocorticoids, loss of autonomy, institutionalization, isolation) and clinical manifestations of hypovitaminosis D (osteoporosis, falls, bone fractures, asthenia, sadness, cognitive disorders, multimorbidity).
Results: 84.6% of patients had hypovitaminosis D. Patients with the profile "Caucasian, non-sad, BMI >21 kg/m^2" had the lowest risk of hypovitaminosis D (67.6%). In comparison, the profiles "Caucasian, non-sad, BMI <21kg/m^2", "Caucasian, sad, history of vertebral fracture" and "non-Caucasian" were associated with a 1.48-fold higher risk of hypovitaminosis D (100%); and the profile "Caucasian, sad, no history of vertebral fracture" with a 1.30-fold higher risk (87.6%).
Conclusions: Three clinical profiles of geriatric patients had 100% hypovitaminosis D. These patients should receive vitamin D supplementation without prior blood test.

P-310

Relationship between the risk of dysphagia and functional outcomes in older community-dwellers

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Background: Oropharyngeal dysphagia (OD) is a swallowing disorder highly prevalent in older community-dwellers, increasing the risk of malnutrition and aspiration pneumonia. However, it is frequently underdiagnosed and its association with functional performance is still unclear.
Methods: With a cross-sectional study design, we enrolled 228 older (mean age 81) community-dwellers evaluated at the Frailty-Multimorbidity Lab Geriatric Clinic Unit of Parma University-Hospital. Subjective dysphagia was assessed with 10-item Eating Assessment Tool (EAT-10). Nutritional screening was performed calculating BMI and Mini-Nutritional Assessment-Short Form (MNA-SF) score. Physical and muscle performance was assessed with Short-Physical Performance Battery (SPPB) test and handgrip strength. Cognitive performance was screened with Mini-Mental State Examination (MMSE) test. The relationship between EAT-10 and nutritional, physical, cognitive and motor performance was estimated through univariate analysis in sex- and age-adjusted and multivariate linear regression model. A logistic regression analysis was run to identify the most predictive factor of dysphagia risk.
Results: In the univariate models, EAT-10 score was significantly and negatively correlated with SPPB score (β=-0.18±0.04, p<0.0001), handgrip strength (β=-0.35±0.11, p=0.001) and MNA-SF (β=-0.43±0.07, p<0.0001). In the multivariate model, EAT-10 score confirmed as significantly associated with SPPB (β=-0.29±0.10, p=0.003) and handgrip strength (β=-0.12±0.05, p=0.02), but not with MNA-SF. In logistic regression analysis, SPPB was the only factor significantly associated with EAT-10 score (OR=0.82, 95%IC=0.70–0.96).
Conclusion: In older outpatients, the risk of dysphagia was significantly correlated with physical performance and muscle strength. The screening of OD should be implemented in the geriatric setting.

P-311

Serum leptin levels in very elderly patients with coronary artery disease

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Introduction: Very limited data are available on leptin in very elderly patients. Therefore, we evaluated serum leptin levels and their relationship with obesity and other disorders in patients with coronary artery disease (CAD).
Methods: Serum leptin levels were measured in 90 hospitalized patients (aged 88.3+4.3 years, females - 65.5%, males - 34.5%) with CAD. Fat mass was assessed by the dual-energy X-ray absorptiometry.
Results: Mean leptin concentration in the study group was 17.2 (0.49–100) ng/ml. 60% of patients had increased leptin levels. Serum leptin levels in women were 2.3 times higher than in men; increased concentrations were detected in 67.7% of women and in 45% of men (p=0.03). Decrease of leptin concentration was registered in 14.4% of patients; all but one of these had severe heart failure. Serum leptin levels were strongly correlated with body mass index (p<0.0001). Significant positive correlations between serum leptin and fat mass were revealed: p=0.0001 – for total fat, p=0.002 – for abdominal fat, p=0.004 – for upper extremities, p=0.003 – for lower extremities fat. Leptin levels were positively correlated with total cholesterol and triglycerides (p=0.0002). Higher leptin levels were in patients with diabetes mellitus (21.01 vs 16.26 ng/ml, p=0.06); increased leptin was associated with higher glucose level (p=0.004). There was trend to higher leptin in patients with atrial fibrillation (19.3 vs 14.6 ng/ml, p=0.2).
Conclusions: Study results demonstrated high prevalence of leptin abnormalities in very elderly patients with CAD. High leptin levels are associated with increased fat mass. Serum leptin levels are strongly correlated with various disorders.

P-312

Serum lipid profile in very elderly Russian patients with coronary artery disease

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Introduction: There are few data available on serum lipids in very elderly patients with coronary artery disease (CAD); these data are conflicting.
Methods: Cross sectional data from 555 hospitalized patients (aged 86.8±5.02 years, females – 74.5%, males – 25.5%) with CAD were analysed. Serum levels of total cholesterol (TC), high density lipoprotein (HDL-C), low density lipoprotein (LDL-C), triglycerides (TG), atherogenic index) were determined.
Results: Prevalence of high serum total cholesterol and triglycerides was 13.3% and 10.4%, respectively; increase of LDL-C level was observed in 26.3% of patients. Decrease of HDL-C was registered in

10.5% of patients. Significant negative correlation between TC and LDL-C concentrations and patient's age was revealed (p=0.001 for TC). Mean TC level in patients aged 75–80 years was 5.43±1.44, in patients ≥90 years – 4.7±1.08 mmol/L (p=0.001). Females had higher concentrations of all lipids than males (p<0.0001 – for TC). Lower lipids concentrations (mainly TC level) were associated with clinically significant heart failure (p<0.0001) and atrial fibrillation (p<0.0001). Higher TC and triglycerides levels were correlated with higher blood pressure values (both systolic and diastolic) (p=0.001). Significant positive correlations between triglycerides and glucose concentration (p<0.0001) as well as between TG and uric acid level (p=0.001) were revealed. Higher triglycerides and lower HDL-C levels were registered in patients with higher creatinine level (p=0.001 and p=0.0003, respectively). Only 11.4% of patients were treated with low doses of statins.
Conclusions: The study results demonstrated some features of lipid profile in very elderly patients with CAD. In this population serum lipids are strongly correlated with various disorders.

P-313
Subcutaneous hydration in geriatric patients – what is the evidence? A systematic review

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Introduction: The use of subcutaneous hydration differs between geriatric departments with a trend for underuse. A systematic review of the underlying evidence is missing.
Method: We performed a systematic search in Pubmed and Embase for clinical trials on subcutaneous hydration in geriatric patients. We excluded papers on the relevance hydration in palliative patients and papers written in languages other than English or Scandinavian. Each paper was evaluated for risk of bias by two independent authors and outcomes were rated according to GRADE.
Results: We included 19 papers. Only five papers compared the use of subcutaneous vs. iv. hydration and found comparable side effects (GRADE-rating ⊕⊕OO). The use of hyaluronidase was evaluated in three papers and these suggested insufficient reason to add hyaluronidase (GRADE-rating ⊕⊕OO). Ten observational studies, four RCT and two case reports reported on the safety of subcutaneous hydration. Pooled data on the use of subcutaneous hydration suggest a low incidence of serious side effects (2.2% of patients; GRADE-rating ⊕⊕OO), and an acceptable number of mild, local side effects (GRADE-rating ⊕OOO). No studies compared different types of fluid, but data suggest that a combination of saline and glucose is safe (GRADE-rating ⊕⊕⊕O). Isotone glucose with potassium is insufficiently studied to support its use (GRADE-rating ⊕OOO).
Conclusions: Low quality evidence suggests that subcutaneous hydration is safe in geriatric patients.

P-314
Subjective Global Assessment (SGA) is a reliable and valid instrument to asses nutritional status in hospitalized older patients in Turkey

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Objective: Malnutrition is a state resulting from lack of intake or uptake of nutrition that leads to altered body composition body cell mass. It is a frequent occurrence despite the fact that it is frequently seen in hospitalized patients, prolonging the hospital stay, increasing morbidity and mortality. In this study, the validity and reliability of the Turkish version of the Subjective Global Assessment (SGA) test used to assess malnutrition in hospitalized older people was evaluated.
Methods: A total of 98 patients 56 women (57.1%) and 42 men (42.9%) with an average age of 73.3±6.6 were included in the study. 50 (51%) and 48 (49%) of the patients were followed at the medical and surgical wards respectively. Two geriatricians experienced in the field of malnutrition who were unaware of the SGA results, interpreted the patients nutritional status after the evaluation of several parameters such as medical history including weight loss, appetite, disease severity, neuropsychological problems, mobility problems, dependency in activities of daily living, anthropometric measurements, biochemical markers, bioimpedance analysis, hand grip strength, geriatric assessment and 3-day dietary records. Based on these groups of data, the patients were divided into "at nutritional risk" and "not at nutritional risk" groups by specialists. Concordance between the two clinicians' clinical assessment was analyzed by kappa statistics and excellent concordance was found (kappa = 0.861), therefore the more experienced specialist's decisions was accepted as gold-standard. A third physician performed SGA within 48 h of admission. At the end of the SGA evaluation patients with a category A were classified as "non-malnourished" and those with categories B and C were classified as "malnourished".
Results: In general, SGA was found to be 91% both sensitive and specific compared to the clinician's assessment of malnutrition. The positive predictive value and the negative predictive value were 89% and 91%, respectively.
Conclusion: The Turkish version of the SGA test in hospitalized older people is a valid and reliable method for evaluating malnutrition.

P-315
The impact of nutritional status on mortality in long-term care facilities residents

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Introduction: The aim was to assess whether nutritional status of residents living in long-term care facilities influence on risk of death.
Methods: The observational study has been conducted in one nursing and two residential homes in Cracow. At baseline demographic characteristics, nutritional and health status were analysed. The nutritional status was assessed based on the screening part of the Mini Nutritional Assessment® and BMI. After 12 months of follow-up, the data on general health condition were collected.
Results: 122 residents have completed data on nutritional status and BMI. Mean age (±standard deviation) of the residents was 78.89±8.6 (range: 60 to 100 years), 67.2% were women. Malnutrition was identified in 19 (15,6%), at risk of malnutrition was 36 (29,5%) and normal nutritional status was in 67 (54,9%) of the subjects. Residents at risk of malnutrition and malnourished was older than residents with normal nutritional status, respectively: 79.3±8.6 yrs and 82.0±9.6yrs vs 77.6±8.2 yrs. During the follow-up 16 residents have died, among them 12 (75.0%) were women; 12 (75.0%) were at risk of malnutrition or malnourished and 13 (81.3%) were residents of nursing homes. In univariate analysis as well as age-gender-settings adjusted analyses the nutritional status based on MNA screening part was significantly linked with risk of death.
Conclusions: The impairment of the nutritional status affected almost 50% of the residents. Risk of death was increased in malnourished only in univariate analysis probably due to small number of deceased.

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The Nutritional Risk Screening (NRS2002) tool predicts mortality in elderly people after discharge from a geriatric hospital

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Introduction: The nutritional risk screening (NRS2002) is validated to detect the presence of malnutrition and to estimate the risk of developing it during hospitalisation. We aim to determine whether the NRS2002 predicts mortality after discharge from geriatric acute care.
Methods: Cohort of 439 patients selected by randomization at admission in the Geriatric University Hospital in Geneva. Clinical data was collected from medical records retrospectively by the same experienced rater. The NRS2002 comprises a nutritional and a severity of disease scores (0–3 points each) with an additional point attributed if age ≥70y. Cox-regression models were used to assess the association between NRS2002 and 12y all-cause mortality. Kaplan-Meyer survival curves were compared using log rank test.
Results: Of 439 patients (mean age 86y; 74% female), 235 (53.5%) had high nutritional risk and 201 (45.8%) enhanced risk. The mean survival was 4.74y (SD=4.08). No survival differences were observed when comparing groups according to NRS2002 classification cut-off for nutritional risk diagnosis (HR 0.834, 95% CI: 0.68–1.022, p=0.081). However, patients at very high global score (NRS2002 ≥5) presented increased mortality risk (HR 1.825, 95% CI: 1.275–2.612, p=0.001). After adjustments for age, sex, albumin and inflammatory status, the association remained statistically significant (HR 1.704, 95% CI: 1.177–2.468, p=0.005). A severity of disease score of 3 points independently predicted mortality (HR 2.82, 95% CI: 1.543–5.155, p=0.001).
Conclusions: The NRS2002 predicts mortality after discharge from geriatric acute care. These results may help to develop preventive strategies selecting patients who would benefit the most from geriatric follow-up in the community after discharge.

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Trends in the management of type 2 diabetes in a short term geriatric unit in Sherbrooke from 2005 to 2015

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Introduction: Type 2 diabetes is a growing epidemic and the main considerations in this population are hypoglycaemia and the target glycated hemoglobin (HbA1c) in relation to the frailty status.
Method: This quality act retrospective transversal study was realized at the short term geriatric unit in Sherbrooke. Data were collected regarding prescriptions regarding hypoglycemic agents and insulin, HbA1c and rate of hypoglycaemia episodes in patients with type 2 diabetes hospitalized in 2005, 2010 and 2015.
Results: We looked at 100, 83 and 94 charts for the years 2005, 2010 and 2015, respectively. We noticed an increase in prescriptions of metformin and DPP-4 inhibitors over time ($p<0.001$) and a decrease in prescriptions of thiazolidinediones and sulfonylureas. Long acting insulin seems to be favoured to intermediate, prandial and premixed insulin in 2015 compared to 2005. The mean glycated haemoglobin value increased from 6.48 in 2005 to 6.72 in 2010 and 7.15 in 2015 (p=0.001). The rate of hypoglycemic event (glucose value <4) and severe hypoglycemic event (glucose value <2.8) were significantly reduced over this period.
Conclusion: Our study demonstrates a change in drug prescription tendency for type 2 diabetes between 2005 and 2015. We think that this practice, along with higher target glycated haemoglobin, explains the reduction in hypoglycemic events.

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Two components of the new ESPEN diagnostic criteria of malnutrition, body mass index and fat free mass index, are independent predictors of lung function in hospitalized patients with chronic obstructive pulmonary disease (COPD)

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Introduction: Diagnosis criteria of malnutrition were proposed by the European Society for Clinical Nutrition and Metabolism (ESPEN) in 2015. The aims of the study were to assess the prevalence of malnutrition in patients with chronic obstructive pulmonary disease (COPD) applying the ESPEN criterion, and to examine the ability of each criteria to predict length of stay (LOS), 6 and 9 months mortality and hospital readmissions within 30 days.
Methods: Subjects were COPD patients (n=121) admitted to Landspitali in the period March 2015- March 2016. Patients were screened for nutritional risk using Icelandic screening tool (ISS) and NRS-2202. Body composition was measured with a bioelectrical impedance analyser (BIA). Lung function was measured with spirometry.
Results: The prevalence of malnutrition according to the ESPEN criteria was 21%. The association between nutritional assessment (with all methods and different components of the ESPEN criteria) and severity of the disease was highly significant, low FFMI (kg/m^2) being the variable associated with the highest risk of being at a severe or very severe stage of the disease (OR 4.77 95% CI: 2.03, 11.20; $p<0.001$). Furthermore, there was a trend towards higher risk of hospitalization for >7 days in subjects with low FFMI (OR 2.46 95% CI: 0.92, 6.59; p=0.074).
Conclusion: Our study is the first to describe the prevalence of malnutrition in hospitalized COPD patients using the ESPEN criteria from 2015. It might be suggested that FFMI should be used as an independent criteria for diagnosis of malnutrition in COPD patients.

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Vitamin D status in octogenarians: data from elderly database in Vilnius

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Objective: The aim of this study was to assess vitamin D concentration in octogenarians.
Methods: A cross-sectional study was performed in National Osteo-

porosis Centre based in Vilnius, Lithuania. Persons aged ≥80 years from Vilnius community dwelling elderly people database were included. Vitamin D (25(OH)D) and parathyroid hormone (PTH) concentrations in serum were measured with Cobas E411. Participants were divided into three groups according to their vitamin D concentration: deficient, insufficient, sufficient. One-way ANOVA with post hoc test was used to determine comparisons between groups. Association between vitamin D and PTH concentrations was assessed using Spearman correlation.
Results: The study was performed on 81 octogenarians: 45 (55.6%) women and 36 (44.4%) men. The average age of participants was 83.59±2.99 years, average height was 160.82±9.27 cm, and weight – 73.11±13.05 kg. Mean vitamin D concentration was 11.77±8.12 ng/ml and PTH – 68.79±42.11 μ g/ml. Seventy (86.4%) octogenarians had vitamin D deficiency, 7 (8.6%) – insufficiency, and only 4 (4.9%) persons were vitamin D sufficient. Of all participants, two persons were taking vitamin D supplements, of which one was in deficient group and other was in insufficient group. Vitamin D groups did not differ in age, height, weight or PTH concentration. No statistically significant correlation was found between PTH and vitamin D concentrations (p=0.18).
Conclusion: The Vitamin D deficiency was found in the majority of octogenarians. There was no correlation between vitamin D and PTH concentrations.

P-320
Which factors inhibit food intake in newly discharged, malnourished older adults?

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Introduction: Disease-related malnutrition leads to poor appetite and decreased food intake that affects the convalescence negatively in malnourished older adults after discharge from hospital.
Objective: To identify factors associated with decreased food intake.
Method: The study sample constitutes two intervention groups from a RCT. Inclusion: Malnourishment or risk of malnutrition, 75+years, home dwelling, and living alone. Exclusion: Terminal illness, cognitive impairment, and nursing home residency. At discharge, all patients received a diet plan covering their individual energy needs. Individualised nutritional counselling was performed one, two, and four weeks after discharge. Information about food intake (was the food intake consistent with the diet plan?) as well as inhibiting factors to food intake were recorded. A logistic regression models was used to estimate Odds Ratios (OR) with 95% confidence intervals.
Results: One week after discharge 121 patients were contacted, 111 at two weeks, and 99 at four weeks. The occurrence of fatigue the first 2 weeks after discharge was associated with decreased food intake between weeks 2 and 4 after discharge, OR 0.41, 95% CI: 0.19–0.92; p=0.03. Eating all meals alone was associated with poor food intake, OR 0.34, 95% CI: 0.15–0.73; p=0.006. Gastro-intestinal problems and sadness affected food intake, OR 0.32, 95% CI: 0.08–1.16; p=0.08, and OR 0.37, 95% CI: 0.12–1.84; p=0.09 respectively, but not significantly.
Conclusion: Decreased food intake is associated with eating alone and fatigue. This knowledge may help healthcare professionals to provide efficient nutritional support to malnourished older adults and thereby prevent some negative consequences of disease-related malnutrition.

Area: Organisation of care and gerotechnology

P-321
"Never event" insulin: Audit of insulin administration in a French nursing home

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Introduction: Insulin administration errors constitute events that should never occur (i.e "never event"). However, the nursing home adverse events annual report has recently described several adverse events concerning insulin. Analysing reasons for such errors is an essential preliminary step to establish an adapted action plan. The objective is to compare gaps between professional practices, (i) official recommendations and (ii) theoretical knowledge. Then, this analysis may help us to choose "preventive measures" adaptable to our local context.
Methods: Two different audit grids were developed by the pharmacist in collaboration with the physician, pharmacy technicians and a quality specialist: one for nurses and one for physicians. Questions covered the whole medication circuit. Data were collected through interviews and observations during visits in services by pharmacy technicians.
Results: Nine forms were completed by nurses, two by doctors and a pharmacy technician did eight visits. A lack of knowledge about official and local recommendations and discrepancy between knowledge and practical implementation were observed. For example, insulin pencils were identified with the patient name but the expiry date was never notified, dispensing was not nominative, etc.
Conclusion: Gaps and mysfunctions highlighted during this audit allowed us to take decisions to improve control on-patient drug care. The main actions consisted in modifying insulin storage and dispensing system, creating a checklist for nurses. An assessment will be performed after one year with a second audit and continued monitoring of insulin adverse events.

P-322
A new way to assess care needs in Germany – New assessment procedure

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After 20 years the dependancy assessment of care change completely. Changes by the new concept of the need for care:
- The concept of nursing neediness changed not only the evaluation.
- He has an effect on the entire system of professional care.
- Through the three Maintenance strengthening law of transition designed to promote and a performance-related maintenance to a person-centered and comprehensive care, care and relief.

The definition of the need of care in relation to independance has changed: before it was: "What I can do for you" and now "What are you able to do by yourself". This new one involve an assesment of: 1. Subject module 1 – Mobility. 2. Subject module 2 – Cognitive and communicative abilities. 3. Subject module 3 – Behaviors and mental problems. 4. Subject module 4 – Self care. 5. Subject module 5 – Dealing with disease - and therapy-related requirements and burdens. 6. Subject module 6 – Life in social relationships Design of everyday life and social contacts.
Background of the reform: Reason 1: More care by demographics: Currently, about 2.7 million people in germany are reliant. Forecast:

For 2030 assuming care about 3.5 million. Currently, 1.5 million people in Germany are ill with dementia. Forecast: by 2050 the number of dementia patients will be twice as high. Reason 2: Previous care means-tested term formed from too little demential diseases. Consequence: People with dementia get fewer services than handicap people. Reason 3: The long-term care insurance are designed in the long term on a secure financial foundation. This new assesment (NBI: Neues Begutachtungsinstrument) starts on january 2017. Our experience since the begining of the year allow us to notice: Pro: better assesment of dementia, more services for caring, a faster access to get the services, same tool for evry lander in Germany. Contra: no suitable procedure for mobile patients suffering from dementia, at the beginning complicated to understand and assess, need of training, lack of teachers in the nursing school, patients without cognitive problems get less services than before (because the law is focused on dementia).
Conclusion: The policy of the government is that every person in need of care should remain as long as possible at home. The benefits for nursing care are higher at home than for nursing home. An evaluation is required; Staffing basis for long-term care, advantages for certain patient groups, more experience is necessary to evaluate these new assessment procedures

P-323
ACANTO: a robotic friendly walker

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Introduction: ACANTO is an European project, funded by EU Horizon 2020 program, aimed at improving physical performance in elderly people through physical exercises provided by a robotic friendly walker (FriWalk). To evaluate the FriWalk' s clinical scenarios and user requirements, two focus groups were carried out, one with physicians and the other with potential elderly users.
Methods: The two focus groups were composed of 9 physicians (n=9), and 8 elderly people (n=8) respectively. Initially, the project and the target of the session were explained with the aim at collecting opinions/suggestions, clinical utility, weaknesses and strengths about each clinical scenario: rehabilitation after hip fracture, functional decline and diagnostic tool. After the participants had a general idea of the project, the FriWalk was presented. Moreover, some exercises demonstration took place and some volunteers could use it under supervision.
Results: All physicians highlighted that for the whole set of clinical scenarios proposed, the FriWalk is an excellent tool to monitor exercise programs and prescribe treatments. In addition, having available information related to the evolution of the patients is of great clinical interest. The focus group of elderly participants agreed that the Fri-Walk is a positive tool that could help them in their daily life, since they could improve their self-confidence and become more independent.
Conclusions: Proposed clinical scenarios were accepted by both groups who agreed that FriWalk helps to improve physical performance. Finally, collected results have determined the clinical framework for ACANTO pilot study.

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Agression and violence against caregivers in nursing home and long term care units

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Introduction: Workplace violence (WV) against caregivers is a frequent phenomenon, particularly in psychiatric, geriatric and emergency medical units.
Methods: The aim of this study was to understand how physical violence affects professional caregivers working in long term care and nursing homes, to evaluate the usefulness of post-incident follow-up through incident reporting (IR), and to enumerate the expectations of caregivers. This study was based on IR data covering the 2013–2015 period from Rennes University Hospital's nursing home and long term care units and from 20 semi-directed caregiver interviews.
Results: Over the 3-year study period, 76 IR claims were filed. These claims covered 108 aggressive incidents broken down as follows: 44.4% blows or slaps, 20.4% aggressive incidents using physical force, 10.2% assaults with objects and 10.2% threatening gestures. More than half of these incidents occurred in the nursing home's Alzheimer's Unit. The interviews show that violence is largely under-reported, with important variations among caregivers. Thirty percent of caregivers file IRs several times a week. IR is hampered by both the trivialization of the violence due to the frequency and repetitive nature of the attacks, as well as by the guilt of the declarant, the fear of colleagues' judgement, and the lack of managerial support. Available WV training courses were not adapted to the specific issues inherent in dealing with dementia patients.
Conclusion: Monitoring IR is necessary to avoid trivializing workplace violence and its repercussions. Incident reporting, especially of cases with physical or psychological consequences, should be encouraged by medical institutions.

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Analysis of the oncogeriatric activity of Saint Joseph Hospital Marseille in 2016: toward a transversal oncogeriatric organization

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Introduction: The geriatric activity of Saint Joseph Hospital Marseille has been organized around a mobile team (2012), an out-patient department, and a day hospital (2016). Our objective was to analyze the oncogeriatric activity in 2016 to optimize its organization.
Material and methods: This retrospective study analyzed 186 consecutive medical records of patients with cancer evaluated from 01/01 to 31/12/2016 directly in-hospital or in out-patient department. The analysis focused on oncologic geriatric assessments (OGA) versus oncologic multi-disciplinary team meetings (OMDM) and on geriatric recommendations.
Results: In 2016, 165 patients (86 women, 79 men) from 70 to 97 (mean age 84.1±5.5) were evaluated through 186 interventions (144 in-hospital and 42 in out-patient department). In 2016, the number of OGA represented only 14.6% of all OMDM (147/1008). OGA were solicited in 46% of sinonasal and throat cancer OMDM, 29% digestive cancer OMDM, 19% of broncho-pulmonary cancer OMDM, and 6% of other cancer OMDM. Only 16.5% of the geriatric recommendations were "compliant" with OMDM whereas 37.9% were "compliant with reserve". On average 4.1±1.4 oncogeriatric recommendations/patient were proposed: acts of nutrition (91.4%); physiotherapy (89.9%), complementary examinations (81.3%), social support (73.4%), pain support (41.7%) and depression support (33.1%).
Conclusion: Too few oncologists required OGA in 2016. Therefore OGA brought significant contribution to patient care through complementary recommendations. A strong awareness campaign should be organized toward organ specialists and doctors to systematize oncogeriatric requests. To manage this foreseeable increase, it seems necessary, maintining the same geriatric team size, to establish a transversal oncogeriatric strategy

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Community hospital geriatric ward cover through remote access robotic tele-presence: A pilot study

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Introduction: A 4-month pilot study was done to establish the suitability of remote assessment of frail older patients in a community hospital ward by a "robotic tele-presence". This technology allows virtual audio-visual interaction through a remote controlled mobile robot to replicate physical presence, all of which can be controlled from a distant location through an "app" on a smart device.
Methods: The parameters assessed through "robotic tele-presence" ward rounds were: a) quality of clinical assessment, b) technical quality, c) patient experience and, d) staff experience. The Consultant Geriatrician was in a different geographic location and controlled the robot through a smart device "app" for these ward rounds.
Results: Difficulties were experienced in some aspects of physician-patient interaction, particularly where there was a need for physical examination and interpretation of findings. However, pre-assessment reviews, formulating problem lists and communicating management plans to patients were satisfactory. Technical quality was affected by variable WiFi connectivity, ambient noise and initial problems in steering the robot remotely. Patient experience was largely positive for overall interaction, including engagement with the doctor and clarity of image but mixed for clarity of voice. Staff experience was mixed, largely due to more prolonged ward rounds, often due to variable connectivity and technical issues.
Conclusion: This exciting technology using "robotic tele-presence" relies on uniformly good connectivity and may not replace "traditional" ward rounds, but should be tested further as a potentially valuable asset for providing specialist opinion remotely to multidisciplinary teams, carers, families and social workers by bridging distances.

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Dependency is associated with age, cognitive impairment and infections: LPZ study in Turkish hospitals

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LPZ is an annual international multicenter cross-sectional prevalence measurement of care problems on institution, department and patient level. It evaluates, risk, prevalance, prevention and treatment interventions.
Materials and methods: Measurement was done on November 2016 in 14 hospitals of Turkey. LPZ tool included 3 forms including questions related with the institutions, departments, care-givers and patients. Patients ≥65 years old were evaluated. This study was supported by Nutricia Turkey.
Results: 281 patients were taken into the study (%53 males). According to LPZ tool, 29.5% of the patients were extensively/completely dependent, 14.6% were partially dependent and 55.9% were extensively/completely independent. Median number of care-givers (nurse, care worker) per ward was 9 in day time, 4 in the evening and 3 in the night shifts. Dependency was related with infectious diseases, mental and behavioural disorders, dementia and stroke. Patients with increased risk for pressure ulcer, malnutrition, falls and polypharmacy also showed increased dependency. Dependency was also found associated with age, BMI (kg/m^2), urinary incontinance, dysphagia, falls and pain. According to multivariate analysis, dependency was associated with age, infectious diseases and dementia.
Conclusion: This study provided important data about 6 care problems in hospitalised elderly in Turkey. Dependency in elderly was found associated with age, dementia and infections.

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Enhancing the continuity of care: Assessing the quality of discharge documentation for our elderly population

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Objectives: Good quality documentation is essential to the safe transition of care for elderly patients at the point of discharge. We intended to review the quality of discharge documentation for patients discharged from acute inpatient services.
Methods: Utilising the electronic patient record we reviewed summaries for patients aged ≥74 years from acute medical, surgical and ageing and complex medicine wards. The content of summaries was compared against established national and local standards.
Results: 321 documents were reviewed. Team members involved in patient care authored 88% of summaries. A succinct summary of the admission with relevant investigations or procedures were adequately documented in 306 (95%) records. However, a clear list of new diagnoses and an up-to-date past medical history were present in only 207 (64%) and 161 (50%) summaries respectively. Episodes of delirium and diagnoses of dementia were appropriately recorded 98% of the time.273 (85%) patients had an amendment made to their medication regime. When required, this was adequately recorded 83% of the time, with rationale for changes included in 73% of documents. Information for patients, in lay terms, was recorded in 254 (79%) summaries.
Conclusions: High quality discharge summaries are authored by team members involved in a patient's care. Though events of admission are recorded well for this cohort; further work is required to improve recording critical elements such as medication amendments and new diagnoses. Relaying information in lay terms for the patient and carers should be viewed as a vital element of this transfer of care document.

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Evaluation of Motor Abilities in young and older subjects using HD-sEMG and IMU data

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Introduction: The aim of this study is to characterize the motor abilities of young compared to older subjects by combining a recent electromyography technique, the HD-sEMG (high density surface electromyography), and the Inertial Measurement Unit (IMU) to estimate muscle activation and motion efficiency during the sit-to-stand test (STS).
Materials and methods: Twelve subjects participated in the STS

test. Seven of which were healthy young subjects (25±5.7 years), and five were elderly subjects (80±7.8 years). All subjects performed sit-to-stand motion 5 times at spontaneous pace. The muscle activity was quantified using specific descriptors such as contraction timing and intensity. Two 8×8 HD-sEMG grids were placed on the right and left femoral muscles. Simultaneously, the trunk maximum acceleration obtained by the IMU during STS test was measured. The results between young/older and men/women were compared. In addition, the statistical correlation was computed for age, sex, and body mass index (BMI) of the subjects.
Results: The results showed that the sex did not have a significant influence on the motor efficiency in the STS test. However HD-sEMG descriptors related to muscular activity, and the trunk maximum acceleration are discriminant with the age ($p<0.001^{***}$). The BMI has also significant impact on specific descriptors ($P<0.01^{**}$).
Conclusion: The obtained results demonstrated the potential of the combination of HD-SEMG and IMU data processing for evaluating functional motor abilities. Further developments are promising for the evaluation of motor aging and sarcopenia for clinical routine.
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P-330
Family participation in the care of patients in a geriatric ward. A literature study

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Introduction: Family participation during hospital admittance is associated with good nursing practice. Participation of the family in hospital care promotes recovery and well-being of the geriatric patient. The aim of this study is to explore methods of structuring family participation in the hospital care of geriatric patients.
Methods: A PubMed, Cochrane, Medline and Biomed Central search was performed. The search terms participation, partaking, hospital, geriatric ward, family member, informal caregiver, relatives, aged, inpatient and elderly were used. All publications were screened for relevant information in title and abstract. The full text of relevant articles was read.
Results: 126 articles were identified, after screening title and abstract, the full text of 9 articles was read. Structured multicomponent intervention programs such as the Hospital Elder Life Program (HELP) have been successful in preventing delirium in frail older patients by using trained volunteers. The FAM-HELP program on family caregiver training and intervention to prevent delirium was proven feasible. Cultural aspects determine the degree of participation of family members in hospital care. The participation of family in hospital care should be planned and structured to ensure a safe and satisfying experience for patients and caregivers.
Conclusion: There is limited information on methods of structuring participation of family members in hospital care of geriatric patients. The FAM-HELP program is feasible, but focuses mainly on delirium prevention. More research concerning integrating family members in hospital care and extending it to other areas beyond delirium prevention is needed.

P-331
Follow-up by phone of elderly cancer patients treated with oral chemotherapy or oral targeted therapy: Results of field experience in a comprehensive cancer center

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Introduction: Oral therapy (OT) of cancer is widely used. To secure the use of OT in elderly patients (EP) we created a Program of by phone weekly follow-up (PWPC) assured by a trained nurse practitionner (NP).
Methods: Our Program created at the instigation of French Ministry of Health was driven by a medical oncologist (MO) and a NP. Every EP beginning an OT met the NP to detail OT side effects and plan a weekly schedule of phone call (PC). Each PC was standardized with questions concerning, observance, and specific SE. According to the answers, preplanned actions were implemented. Toxicity alerts were triggered and MO advice was required. After 3 months follow-up if no toxicity > grade 2 was observed, EP went out of the PWPC.
Results: Between 2015 and February 2017, 244 EP entered the Programm. Mean age was 79 (70–94). 142 EP had solid tumors and 102 hematological diseases. 94% of EP had locally advanced or metastatic disease. Mean duration of follow-up was 159 days (1–515). Mean duration of PC was 8 mn. 39% of EP went out of the PWPC because of tumoral progression, 26% because of good tolerance, 26% because of toxicity, 9% because of EP'S refusal or on non medical ground. 39 unplanned hospital admissions occured, only 8 were triggered by the NP. No toxic death occurred.
Conclusion: PWPC was widely accepted by EP. Only a randomized trial comparing this Program versus usual care could prove superiority of this follow-up in EP under OT for cancer.

P-332
Geriatric outpatient consult in a general Portuguese hospital

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Introduction: Geriatric medicine is slowly growing in Portugal, a country where it had been sparse until a few years ago despite the increasing elderly population. With the rising awareness of the challenge involving the aging-related medical issues, it became clear that medical institutions had to adapt. Therefore a multidisciplinary Geriatric Outpatient Consult (GOC) was created in our general hospital on May 2016.
Methods: A retrospective, observational and descriptive study was conducted by evaluating the demographic and clinical characteristics and the initial comprehensive geriatric assessment of patients referred for a first GOC from May 2016 to April 2017. Demographic and variable analysis was conducted using Excel 2013®.
Results: 50 patients were referred to GOC, 68% were female. Mean age of 81,8years. 46% were referred after an Internal Medicine ward admission. 82% patients took more than 4 drugs, with a median number of drugs taken of 8, reduced to 6 after the first consult. Median Katz score and Lower-Brody score were 5 and 2, respectively. 20% were malnourished and 38% were at risk of malnutrition. 30% and 22% patients had mild and severe cognitive impairment, respectively. 48% had a Yessavage score >6. 84% had more than 3 active medical problems identified.
Conclusion: It is clear that there's a population benefiting from being evaluated in GOC. Being in its early beginning, there's still room for improvement but with time we hope to show positive results in terms of enhanced health outcomes for Portuguese elderly patients that could be replicated in other hospitals.

P-333
GeroS – gerontological public health indicators inextricably linked by CEZIH

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At the initiative of the Ministry of Health Reference Centre RH for

elderly health care - the Center for Gerontology Health Teaching Institute for Public Health "Dr. Andrija Štampar" and the Croatian Institute for Health Insurance established the aims and objectives in the field of computerization of monitoring gerontology and geriatric health care for the elderly. The main goal is to link the provision of gerontological health care at all three levels, from primary health care for the elderly in homes for the elderly with the use of geriatric nursing documentation for geriatric health care to the hospitalized geriatric insured on long-term treatment and to geronto dental services. Gerontology services accompanied Gerosa infection, inextricably linked within CEZIH's (Central Croatian central information system) refer to the monitoring and evaluation of health needs and functional ability of gerontological insured and geriatric patients. The ultimate goal of the project is the computerization of the entire health care for the elderly and geriatric patients, regardless of ownership of institutions in which they are located, as well as Gerontologic insured persons and the elderly in long-term treatment in hospitals and palliative geriatric and psycho geriatric care to gerontological public health indicators were all in one place, the central health care system, integrating it with CEZIH infection via GeroS. Computerization of health care for the elderly will cover the medical services provided to the elderly, but individual gerontological approach which includes institutional and non-institutional care for the elderly provided by the Gerontology Center. All these gerontology health information will be collected in GeroS, CEZIH subsystem for the monitoring and evaluation of health needs and functional ability of geriatric patients and Gerontology insured provided objectification of identifying and evaluating and links all three levels of health care for the elderly. The system will be inextricably linked to CEZIH infection, the most important segments of gerontological health care will be recorded in the planned gerontology e-cards. This will make the entire health system is efficient, adequate, accessible and properly regulated legislatively, with evaluation of geriatrics health care, and the purpose of promoting the protection of the elderly and the rationality of the growing geriatric health care spending.

P-334

Impact of admission medication reconciliation in elderly at risk of loss of autonomy

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Introduction: Elderly patients at risk of loss of autonomy already benefit from an Hospital Discharge Form including clinical, pharmaceutical and medico-social informations. A clinical pharmacist carries out pharmaceutical analysis and treatment optimisation in a 60-bed geriatric department. This study aims at assessing the impact of the implementation of admission medication reconciliation (MR) in a 20-bed part of the department.
Methods: A prospective observational study was carried out from November 2016 to March 2017. The pharmacist consults at least 3 sources of information to establish the best possible medication history (BPMH) on every patient admitted. Proactive MR helps to write the admission medication order (AMO) whereas retroactive MR includes identifying and documenting discrepancies by comparing the BMPH to the AMO in order to amend the AMO where needed. The evaluation uses the standardised MedRec indicators.
Results: 143 of the 151 patients benefited from MR, among which 83.9% within 24 hours of admission. MR was proactive in 14% of cases. 187 medication errors were intercepted at admission, on average 1.5 per patient, and eventually 1.1 were corrected. The number of undocumented intentional discrepancies was 0.4 per patient. 61.8% of patients presented with at least one medication error. 4.4 sources were consulted per MR for information gathering.
Conclusions: The large number of medication errors intercepted and corrected at admission demonstrates that MR performed by a clinical pharmacist is a necessary starting point for treatment optimisation and must be combined with a program aiming at reducing the risk of early re-hospitalization.

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In-hospital non-surgery-related mortality is the highest in patients suffering from nervous system, respiratory and cardiovascular diseases: A 5-year cohort study of 6,581,081 hospitalizations in seniors

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Introduction: Hospitalizations of elderly patients are more frequent than of younger individuals, consume a large amount of financial resources, and carry a high risk of being prolonged and terminated with death. Therefore, the aim of this study was to assess in-hospital non-surgical mortality in a very large group of patients.
Methods: Data from the database of the National Health Fund insuring almost 100% of Polish citizens were used for analysis regarding 15,345,025 hospitalizations of adult patients not related to surgical procedures, including 6,581,081 hospitalizations of seniors ($\geq$65 years), that occurred between 2009 and 2013.
Results: The mean mortality rate increased with age from 0.12±0.01% in the 18–24 years old group to 4.17±0.08%, 7.39±0.12%, 14.87±0.20%, and 26.65±0.30% in the 65–74, 75–84, 85–94, and $\geq$95 years old groups, respectively. The mean odds ratio for in-hospital non-surgery-related death also increased with age, reaching 229±15.06 in the $\geq$95 years old group vs. the youngest adults. In seniors, the mean mortality rate was highest in these suffering from the nervous system, respiratory, as well as heart and vascular diseases (10.22±0.35%, 9.54±0.25% and 7.84±0.27%, respectively), while the lowest mortality rates regarded bone and muscle, as well as head and neck diseases (1.26±0.08% and 0.62±0.08%, respectively).
Conclusions: The in-hospital non-surgery-related mortality significantly increases with age. In the elderly, it was highest due to the nervous system, respiratory and cardiovascular diseases. Hospitalizations due to the bone and muscle, as well as head and neck diseases were associated with a low risk of death, even in oldest-old.

P-336

Interest and impact of pocket ultrasonography screening in a geriatric unit

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Material and method: We ran a interventional cross descriptive study in a short term geriatric unit. After consenting, each patient was examined with a pocket-size ultrasound and Doppler device (iViz, Sonosite, Seattle, USA). The examination concerned 15 organs and his duration shouldn't exceed 15 minutes. The impact on patient care was judged after the examination by the pratician in charge of the patient, and was divided in 4 categories: Direct, delayed, neutral, and negative.

Results: During 6 months, 501 patients were examined. Median time used was 13 minutes. The examination resulted in a direct impact in 35% and in a delayed impact in 23% of cases, for a total of positive impact of 58%. Negative impact concerned 0.8% of patients. Double reading of ultrasound iconography gave a excellent concordance between both readers. Abdominal examination was the most important part of the examination, and cervical was the less important one. Having a direct impact in patient care didn't impact significantly the duration of stay of patients.
Conclusion: Running a routine ultrasound examination at patient's entry in a geriatric unit has a direct impact in patient care in 35% of cases. The versatility of ultrasound's applications, and the recent progresses made with mobility and miniaturization are perfectly adapted with the polypathologic profile of geriatric patients.

P-337
Literature review: comparison of the treatment of institutionalized patients exhibiting a degenerative dementia in specialized care units and in conventional extended stay care units between 2006 and 2016

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Introduction: The number of individuals living in designated lodgings for elderly individuals (DLEI) in France continues to increase, amounting to close to 9% of the individuals over the age of 75 in 2012. The aim of our work was hence to provide a review of the recent literature from 2006 to February 2016 regarding the treatment of institutionalized patients exhibiting a neurodegenerative illness in specialized care units compared to conventional care units, according to specific criteria for quality of life, maintenance of higher functions, and in terms of behavioral changes or loss of autonomy.
Methods: This involved a selective literature review carried out by a digitally-assisted search. The selected studies had to be less than 10 years old at the time of the data collection. The articles had to be published in English, or in French so as to include published studies that specifically addressed features relating to the French care system. Only studies addressing differences in treatments between specific (SCU) and non-Specific (n-SCU) units were considered, the others being excluded.
Results: To compare treatment in SCUs and in n-SCUs, the studies used reproducible and validated scores for assessing quality of life, cognition, behavioral issues, as well as autonomy in each of the units. Use of medicinal therapeutics, hospitalization rates, and physical restraints were also often investigated. Our work focused on recent studies taking into account the latest measures put in place in DLEIs comprising SCUs. A literature review carried out in 2012 that took into account historical studies did not find that SCUs were generally better in regard to providing care for patients with dementias.
Conclusion: In conclusion, by specifically considering only the more recent studies, this work has allowed knowledge of the merits of development of specialized units to be updated, particularly in terms of the treatment of dementias.

P-338
Management of geriatric syndromes in older adults with cancer: First experience from a newly founded oncogeriatric unit in a German hospital

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Introduction: It is unclear which type of clinical setting and infrastructure is best to manage geriatric syndromes in cancer patients. We here report routine care data after having established an Oncogeriatric Unit as part of a large geriatric clinic at the St. Marien Hospital in Cologne, Germany.
Methods: Older adults with cancer were enrolled into the newly founded unit to receive geriatric evaluation and intervention.
Results: From January to March 2017, a total of 60 patients were enrolled (53% males, median age 80 years, median Barthel index 45 points). Most were referred from other hospitals (9 from oncology clinics, 16 after tumor surgery, 33 from non-oncology clinics). Referrals were mainly driven by immobility or falls, delirium, and nutritional problems. In 58% and 32% of the patients, respectively, cancer/cancer treatment was key for referral or highly relevant for geriatric intervention planning. The spectrum of cancers included solid (72%) and hematological (28%) malignancies with colorectal cancer, prostate cancer, and lymphoma being most common. In 10 patients (17%), chemotherapy was administered immediately before or after staying at the unit. Oral cancer treatment had to be administered in 7 patients (12%) while staying at the unit. Two patients (3%) received radiation therapy and 4 patients (6%) died. In patients having completed a comprehensive geriatric care program, median increase of the Barthel index was 10 points.
Conclusions: Oncogeriatric units within geriatric clinics allow a focused management of geriatric syndromes in older adults with cancer. Comprehensive geriatric care in such patients results in functional improvement.

P-339
Measurement of quality of care in elderly in Turkish hospitals using LPZ tool

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LPZ is an annual international multicenter cross-sectional prevalence measurement of care problems on institution, department and patient level. It evaluates, risk, prevalance, prevention and treatment interventions.
Materials and methods: Measurement was done on November 2016 in 14 hospitals of Turkey. LPZ tool included 3 forms including questions related with the institutions, departments, care-givers and patients. Patients ≥65 years old were evaluated. This study was supported by Nutricia Turkey.
Results: 281 patients were taken into the study (%53 males). LPZ tool showed 47.2% PU risk, 12.8% stage ≥1 PU and 5% nosocomial PU. Active/reactive support surface (43.8%) and repositioning (33.8%) were used to prevent and treat PU. 42% of the patients had UI (n=118). Main interventions for UI were urinary catheters, medications, bladder training and inlay pads/underslips. Malnutrition (MN) risk was 43%. 68 patients had dysphagia. Energy/protein rich snacks were given to 24.1%, oral nutrition supplements to 15.6% and parenteral nutrition to 8.5%. Fall risk, fall prevalance in the last 12 months and in the hospital were 62.3%, 28.8% and 8.5% respectively. Interventions were evaluation of drugs, exercise, alarm system, low bed and restraints. 18 mechanical, 5 physical, 18 medical and 6 psychological restraints were reported. 171 patients were

complained from pain. 77.2% received pharmacological treatment for pain (paracetamol: 52.6%, NSAII: 15.8%, opioids:22.8%).
Conclusion: This study provided important data about 6 care problems in hospitalised elderly in Turkey. Annual measurement of risk/prevalance, preventive measures and treatment interventions will provide better hospital care plans for elderly.

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Overcoming challenges of digital self-management in older adults with multimorbidity: The promise of social connectedness?

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Introduction: Digital self-management for older people holds promises for aging well. However, the adoption readiness remains limited due to barriers in e.g. digital literacy, health and support. Furthermore, older people with multimorbidity (PwMs) are at increased risk of experiencing social disconnectedness. This living lab study explores the role of social connectedness in dealing with the challenges of digital self-management.
Methods: Data was collected in Belgium and Ireland as part of the ProACT project, which aims to develop a digital integrated health ecosystem to support self-management for older PwMs. Semi-structured interviews and focus groups were conducted with 38 older PwMs, 17 informal carers, 29 formal care workers and 41 healthcare professionals (HCPs). Subsequently, several co-creation sessions were held with PwMs and informal caregivers. Interviews and focus groups were transcribed and analysed using thematic analysis.
Results: Both the expected barriers in digital self-management, and the lack of social connectedness arose. HCPs and formal carers identified loss or lack of social contacts as a key factor in the deterioration of health, wellbeing and self-management abilities. Across stakeholders, the social context was considered an important determinant of PwMs motivation for self-management. Therefore, in ProACT, a tool is developed to support this. We present the concepts of this tool, and the feedback collected on them.
Conclusion: This study demonstrates the different dimensions of the importance of supporting social connectedness in digital care solutions for older PwMs. We also explored different concepts to support social connectedness, overcome the common challenges of digital self-management and increase adoption.

P-341
Potentially inappropriate prescribing in elderly patient: analyze before/after hospitalization

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Introduction: In the context of improved medication management in the elderly patient, we were interested in the reevaluation of drug prescription during hospitalization. The aim of this study is to assess the prevalence of inappropriate prescribing in the elderly patient before and after hospitalization.
Methods: This is a descriptive and retrospective study of drug prescriptions in a non-geriatric unit. Prescriptions were analyzed using STOPP/START v2 tool.
Results: Seventy-two patients over 65 years-old were included. A polymedication of 5 or more drugs was reported in 76% of cases (n=55) at entry and in 90% (n=65) at discharge. Inappropriate prescribing rate with at least one STOPP criteria decreases from 58% to 29% after hospitalization ($p<0.0005$). Potential prescribing omissions rate decreases from 46% to 42% after hospitalization ($p<0.5465$). Drugs most frequently involved were benzodiazepines (21%), antiplatelet agents (11%) and opiates (8%). There was improvement rather qualitative than quantitative of prescribing after hospitalization.
Conclusion: Collaboration between different health professionals seems essential to ensure optimal medication management. This pharmaceutical follow-up approach should make it possible to undertake a multidisciplinary collaboration.

P-342
Preliminary studies using wearable motion sensors to identify elderly persons with Parkinson's Disease

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Introduction: Small wearable microelectronic sensors (accelerometers) can detect motion, gravitational acceleration, and velocity with six degrees of freedom (forward-backward, up-down, and side-to-side plus rotational vectors). The purpose of this study was to test the feasibility of using these motion sensors to create new analytical tools called biokinetographs (BKGs) to identify persons with Parkinson Disease (PD).
Methods: Twenty-two members of a PD support group with clinically diagnosed PD (mean age 68.6) and seventy-six members of a life-care community (mean age 80.3) agreed to participate. Subjects wore wristwatch-sized accelerometers attached with Velcro straps on their right wrist, sacrum, and over each ankle while walking a closed 30-meter course.
Results: Principal component analysis of the ankle sensor BKGs identified gait speed, right single stance time, double stance time, left heel strike amplitude, difference in toe off amplitudes and left spectral peak and right spectral frequency as discriminating PD from no PD subjects. A regression model using these variables identified 20 of 22 of the people with PD (90.9%) and 71 of 76 people without PD (93.4%). Remarkable visual differences in "functional walking signatures" are evident on the BKGs of persons with PD.
Conclusion: We conclude that BKG functional signatures may be associated with clinically obvious PD and suggest that this area is rich in potential for additional validation studies using this objective, noninvasive, wearable technology.

P-343
Role of dependency on overall survival in elderly cancer patients: results from a French study

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Introduction: Several population-based studies have reported disparities on survival among elderly cancer patients related to age, gender, marital status, socioeconomic status, stage at diagnosis and comorbidities. However, these studies did not consider impairments, and none was carried out in Europe. Our aim was to study determinants of overall survival in French elderly cancer patients.
Methods: We merged data from four cancer registries (one general and three specialized) and three elderly cohort studies (PAQUID, 3-City and AMI) to identify elderly cancer patients. We included

subjects aged 65 years and over, alive January 1, 2005 and resident of Gironde, a French department, with a validated cancer diagnosis recorded in one of the four cancer registries from 2005 through 2014. Primary endpoint was all-cause survival. Studied variables were demographic and socioeconomic, cancer-related, health, dependency, neurocognitive and area factors. Cox proportional hazard models were fitted.
Results: We included 486 elderly cancer patients, 263 (54.1%) of which died by the end of the follow-up. In multivariate analyses, advanced age, male gender, residence in urban area, dependency, advanced stage at diagnosis and no treatment were associated with lower overall survival ($p<0.05$).
Conclusions: Association between age, gender and stage and survival are commonly reported in the literature. Regarding treatment, results are heterogeneous mainly because studies are about specific cancer types and/or treatments. Studies on urban residence are scarce and do not report any association. Dependency has not been studied, but studies in the general elderly population report an association with survival.

P-344
Structuring diabetes mellitus care in long term nursing home residents

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Introduction: Nursing home residents have more complex care needs with higher levels of comorbidity, disability and cognitive impairment. It is estimated that 1 in 4 nursing home residents has diabetes mellitus. These patients are particularly vulnerable and require special attention.
Methods: We compared current practice in the 44 long term residents in Peamount hospital with the standards recommended in the Diabetes UK "Good Clinical Practice Guidelines for Care Home Residents with Diabetes".
Results: Of 44 residents, 11 were diabetic. Only one resident was screened for diabetes on admission. Residents did not have specific diabetes care plans. There were no algorithms for the management of hypoglycaemia, hyperglycaemia or diabetic complications. 73% of residents with diabetes had a HbA1c checked in the last year, but there was no formal schedule of HbA1c monitoring. There was no protocol for screening for diabetic foot disease and retinopathy with low uptake of the national retinal screening and footcare programmes. In house access to dietetics and chiropody was provided.
Conclusions: Despite some elements of good practice, diabetes care was delivered on an ad hoc basis without screening for diabetes, individualised diabetes care plans, documented glycaemic targets, or scheduled monitoring for complications. National and local policy to guide management of diabetes mellitus in long term care needs to be developed. There should be individualised diabetes care plans and clear policies for the management of hypoglycaemia, hyperglycaemia and long term diabetes complications.

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Surgical medical support team of Hospital Sur de Alcorcon and geriatric unit in Quironsalud Hospital group in Madrid: First 5 years

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Introduction: Since 2012, in Hospital Quironsalud Sur of Alcorcon, Hospital La Luz and Private consults of Fundación Jiménez Diaz private geriatric consults that are part of the consultations offered by Quironsalud. There is also a support team attending surgical patients in Hospital Sur of Alcorcon.
Aims: To study the activity of multidisciplinary team and the consultations in QuironSalud private hospitals to determine future areas of development.
Methods: Activity of geriatric unit were registered. It was recorded the number of consultations, also the visits for follow up both inside and outside the hospitals. E-consults were also recorded.
Results: Consultations of geriatric units receive am average number of 150 patients every month. Surgical support team performs 200 visits every month. Patients with comorbidities or frail were transferred to consultation.
Conclusions: In the last five years geriatric consultation is one of the services offered by Quironsalud Hospital Group. Contributing to increasing fidelity of elderly patients to our hospital. Also we had the possibility to create different geriatric circuits in order to work to different services such as Neurology and Psychiatry.

P-346
Telemedecine in nursing homes and geriatric evaluation: An option to therapeutic optimization. an observational study in Bordeaux University Hospital

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Geriatric items represent 62% of teleconsultations currently leading in Aquitaine for nursing home residents. An observational study was led since november 2014 to march 2017 for therapeutic optimization evaluation according to the START & STOPP list. A descriptive analysis and a stepwise logistic regression were performed. Therapeutic optimization represented 86% of total acts. Misuse was observed in 55% of cases (neuroleptics – 38%, antidepressants – 22%, cardiovascular treatments – 20%), underuse in 53% of teleconsultations (antalgic treatments – 35%, anxiolytics – 24%). Overuse concerned 11% of cases (anxiolytics – 28%, neuroleptics – 18%, antihypertensive treatments – 10%). Propositions to stop or decrease dosage was associated with: getting a diagnosis by experts (OR=2, p=0.004), at least one additional item covered during the teleconsultation (OR=2.5, $p<0.0001$), the presence during the telemedecine act of: care assistant (OR=1.6, p=0.03), coordinating doctor (OR=1.7, p=0.02), and psychologist (OR=1.6, p=0.03). Additional treatment or increase dosage was associated with: $\geq$1 comorbidity classified Cumulative Index Rating Scale for Geriatrics = 4 (OR=2.5, p=0.021), at least one additional item covered (OR=1.8, $p<0.04$), the presence of: family (OR=1.5, p=0.08), and care assistant (OR=1.8, p=0.008). Telemedecine represents one solution to therapeutic optimization for dependant nursing home residents. Its deployment must be encouraged according to french health autority.

P-347
That's how I always did it – Adaptability in older people

V. Moser-Siegmeth, D. Hebesberger, M. Weninger, M.-C. Gambal, M. Jelovcak, B. Prytek, I. Swietalsky, D. Würzl, C. Fida, V. Staus. *Haus der Barmherzigkeit*

Adaptability is the capacity to adjust without great difficulty to changing circumstances. Within our project, we aimed to detect whether older people lose this ability to adapt or not. There is lack of evidence in the literature how the adaptability of older people changes over the time. The following research questions were generated: (1) Are older residents of a long-term care facility able to adapt to changes within their daily routine? (2) How long does it take for older people to adapt? This study was designed as a convergent parallel mixed method intervention study carried out

within a four-month period and took place within seven wards of a long-term care hospital in Vienna, Austria. As a planned intervention, a change of meal-times was established. The inhabitants were surveyed with qualitative and quantitative questionnaires and diaries before, during and after the intervention. In addition, a survey of the nursing staff was carried out in order to detect changes of the people they care for and how long it took them to adapt. Quantitative data was analyzed with SPSS, qualitative data with a summarizing content analysis. The results show that the ability to adapt to changes does not deteriorate with age or by moving into a long-term care facility. This can be confirmed by the nursing staff. Although there are different determinants like the health status that make an adjustment to new situations more difficult. This study is able to serve as the basis for further research.

P-348
The benefit of mixed methods in a nursing research project

V. Moser-Siegmeth, D. Hebesberger, M. Weninger, M.-C. Gambal, M. Jelovcak, B. Prytek, I. Swietalsky, D. Würzl, C. Fida, V. Staus. *Haus der Barmherzigkeit*

Mixed methods research is an approach to inquiry involving collecting both quantitative and qualitative data. The core assumption is that the combination provides a more complete understanding of a research problem. In 2016 we initiated a project at seven geriatric units of a nursing home shifting the mealtimes towards evening. The aim of this intervention was to assimilate the day-structure of the nursing home towards the day-structure at home before entering. With the added value of mixed methods we try to detect whether adaptability gets lost over the time in nursing home residents. Working systematically through the literature, we found out that there is paucity of evidence pointing towards the meaning of adaptability. In order to close this gap we explored the topic with a convergent parallel mixed method intervention study by integrating the opinion of nursing home nurses on the one hand and patients on the other hand. Qualitative interviews and quantitative questionnaires with patients and nurses were carried out as well as a diary, which was kept by the patients. In our presentation we will provide an account of this particular aspect of the project and discuss the process of developing a mixed methods research design. We illustrate how the combination of qualitative and quantitative methods can help to better understand complex phenomena like the one under study and we critically appraise the pros and cons of our approach.

P-349
The experience of being a family caregiver in Flanders: Does tube feeding in patients with oropharyngeal dysphagia affect my quality of life?

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Introduction: Flanders is facing an increasing number of challenges such as limited financial resources, socio-demographic changes, rising health care cost and increasing health demands. Due to this issue a shift from institutional care towards home care is noted. Many medical conditions, diseases and disorders require the use of tube feeding in non-institutional settings. For this reason the importance of informal caregivers is growing in the changing landscape of healthcare. The objective of this study was to examine how family caregivers in Flanders experience taking care for adult patients with oropharyngeal dysphagia who need nutrition support.
Methods: The qualitative methodology for this study was based on the grounded theory to analyze the experience of being an informal caregiver. Data were gathered by individual in-depth interviews. An inductive approach was applied to identify and categorize the data. Selection of participants is based on ad random sampling but the appropriate number will be guided by data saturation. All in-depth interviews were tape-recorded, transcribed and scrutinized to identify the main themes.
Results: Ten informal caregivers participated the in-depth interviews. Saturation will determine the majority of qualitative sample size. The basic research question is an opportunity to delve more deeply into different issues of this topic if we want to investigate and understand the experiences of informal caregivers in Flanders. Further interviews are needed.
Conclusions: Informal caregivers do experience important changes in their lives and informal caregiver burden is well described in literature. Strategies are needed for family caregivers in Flanders to help and reduce the psychosocial, occupational and economic burden associated with informal care.

P-350
The geriatric patient in the global payment with standardization

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Introduction: The Belgian Ministry of Social Affairs and Public Health together with the National Institute for Health and Disability Insurance (RIZIV-INAMI) will be introducing a Global Payment with Standardization (GPS) the first of January 2018. This is a prospective hospital payment system for pathologies of low variability. In a first phase, it is estimated that €438 Million remuneration of medical specialists will now be distributed based on a lump sum per APR-DRG's (3M™). This replaces a fee-for-service payment system. However, this new system doesn't differentiate between age groups. The lump sum remuneration per APRDRG will not take in account if the patient is pediatric, adult or geriatric. Even when the medical approaches for the same pathology will clearly be very different.
Methods: We examine if it will be relevant to add age or admission in a geriatric ward as an extra criterion for the 32 APR-DRG's adopted in the new GPS system. We use data from two hospitals (one teaching hospital and one general hospital, 800–1000 beds each). Data from more than 20.000 hospitals stays from patients older than 70, hospitalized in 2014–2016 were analyzed.
Results: Data shows that although geriatric patients are not surprisingly more often classified in pathology groups with a higher Severity of Illness (less than 5% has a SoI of 1), this is not enough to explain and compensate the differences observed in medical approach, measured by the fee-for-service payment.
Conclusions: A refinement of the new GPS system for the geriatric patient is thus necessary

P-351
The multi-disciplinary team (MDT) is essential to reduce length of stay (LOS) in the acute frailty unit (AFU)

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Introduction: MDT assessments of patients can improve LOS. We aimed to assess whether a seven day enhanced therapy service improved LOS compared to standard five day in AFU.
Method: A retrospective observational study at Royal Bolton Hospital in Greater Manchester. Patients were admitted from assessment and emergency departments. The "enhanced" service was from 3/8/2014–31/7/2015 and the 'standard' five day from 18/8/2015–14/8/2016. Data was collected for demographics, LOS and admission reason. Our primary outcome was LOS. Our secondary outcomes were the LOS for patients awaiting 24hour care, intermediate care (IC), and discharge home. Data was analysed with Excel.

Results: In 2014/15 1272 vs 946 in 2015/16 were admitted. In 2014/15 common admission reasons were falls (280/22%), respiratory conditions (140/11%), urinary tract infection (UTI) (109/8.6%). In 2015–2016 common admission were falls (292/30%), respiratory conditions (66/7%), UTI (95/10%). Average LOS in 2014/15 was 8 days (d) (median=6, n=1272) compared with 10d (median=8, n=946) in 2015/16 ($p<0.0000001$). Average LOS in 2014–15 of those discharged to 24 hour care was 20d (median=17, n=60) and intermediate care was 11d (median=8, n=215). The average LOS in 2015–16 of those discharged to 24 hour care was 21d (median=15, n=33) and intermediate care was 14d (median=11, n=120). The average LOS of those discharged home increased from 5d (median=5, n=504) in 2014/15 to 6d (median=6, n=297) in 2015/16. Outlying patients were similar in both groups with 51/31 respectively.
Conclusions: LOS was improved with a seven day therapy service suggesting that having a proactive therapy team can enhance flow within an acute unit.

P-352
The ROSIE project. A comprehensive review of field trials of social robots in the geriatric sector in France: practices, socioeconomic aspects and ethical framework

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Introduction: In France more than 100 geriatric institutions are taking part in field trials of social robots. However, results from these tests are little known. This is mainly due to their exploratory nature and to the discontinuity between research and clinical practices. Despite the rapid progress of robot-mediated interventions, there is no guide to best practices in this area. Also, it lacks a consensual ethical framework to inform these interventions. Moreover, their economic and organizational impact have rarely been addressed. The ROSIE project's main objective is to conduct a comprehensive review of recent and current trials of social robots, within the field of geriatrics, in France.
Methods: Feedback from field trials will be collected through a survey and a series of case studies. Experiences will be analyzed adopting a multidimensional perspective (clinical, organizational, economic, social, ethical, ...).
Results: Outputs of the project will be: (1) an international state-of-the-art on the use of social robots in geriatrics; (2) a comprehensive inventory of field trials in France; (3) three tools to support the implementation and evaluation of these interventions: best practices guide, ethical chart, and methodological manual for their economic evaluation.
Conclusions: Results will help to better understand uses and limitations of robotic interventions: (a) clinical indications, (b) factors encouraging acceptance and adoption; (c) logistic requirements; (d) resources involved; (e) ethical issues. Besides its focus on these innovative practices, the project proposes an original approach by relying on existing trails and capitalizing on them.

P-353
The use of a new telemedicine system in nursing home (NH)

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Introduction: Considering the difficulty of ensuring therapeutic-care's continuity for patients in NH, we started a monitoring project through the use of a specific telemedicine system called eViSus®. Aim of this study was to verify the system's effectiveness in various therapeutic-care contexts.
Methods: Remote monitoring has been achieved through eViSus®, composed by:
- Totem station in NH: it consists of touchscreen display, high-resolution webcam, mic/speaker, PC, and communication box;
- Control Station in hospital: it consists of display, webcam and PC with client software. During the A/V remote sessions the operator controls zoom and movements of the remote totem camera.
- Central Control Server: server software in the cloud manages totem and control stations through encrypted channels preserving communications privacy and integrity.

Results: From August 1st, 2016 to April 30st, 2017 the followings have been performed:
- 107 examinations in malnourished patients. Patient's clinical evaluation was always possible;
- 6 evaluations of 6 patients suffering from pressure ulcers.

Human resources involved: a medical doctor and a dietician in hospital and a healthcare assistant in NH. Moreover, NH nurses were supervised by specialized nurses in hospital in the following activities (training and retraining):
- Vascular device's medications: 13 video-consults in 6 patients;
- Automated Peritoneal Dialysis management: 53 connection/disconnection procedures in 2 patients.

Conclusions: eViSus® system's benefits were numerous:
- Different clinical evaluations avoiding patient's transportation;
- Better audio/video quality compared to traditional video conferencing devices allowed to replace the face-to-face visit;
- Limited needs of human resources;
- Educational capability by experienced staff, with the chance of repeated audits, eventually practicable also at domicile.

P-354
Value based health care in the elderly hospital population

C.J. Kalisvaart, R. Vreeswijk, D. Zwijnenburg. *Spaarne Gasthuis*

Based on the research of Professor Porter (Harvard), Value-Based Health Care is a framework for restructuring health care systems with the overarching goal of value for patients—not access, cost containment, convenience, or customer service. It is outcome based. The International Centre of Health Outcomes (ICHOM) is a leading initiative for constructing evidence based methods to evaluate patient based outcomes. In the region of our hospital we decided to put this into practice for elderly patients with a hip-fracture. There is no ICHOM program for elderly patients with hip-fracture, so we concentrated on the program for frail elderly in combination with the Dutch hip-fracture audit. Based on these values we analysed data from previous years and constructed "mirror talks" with patients and their caregivers. From this information we used 6 values for outcome improvement for the coming 12 months: mortality, morbidity, delirium, length of hospital stay and costs, length of rehabilitation and costs and patient experience and satisfaction. We then divided the hip-fracture pathway into 3 major steps:1. The patient before the fracture: vulnerable at home or in the nursing home with all kind of problems (e.g. polyfarmacy, comorbidity, cognitive disorders and ADL-dysfunction) and (unknown) wishes regarding to treatment restrictions and rehabilitation institutions. We developed a leaflet for all the frail elderly in our region to store at home. 2. Intra hospital: from the ambulance to 3. The start of rehabilitation in a centre or at home. Now we are at a weekly basis evaluating effects on the 6 outcomes and costs with GP, rehab drs and (para0medics) to sharpen the program even further. With very satisfied patients.

P-355
What older adults in Lithuania think about gerontechnologies, specifically fall detectors

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Introduction: Although the Lithuanian population is ageing, the expectancy of autonomous life in older people remains one of the shortest in Europe. Falls are particularly common in the older population and it is known that over 30% of people fail to get up unaided, which can result in severe consequences. Fall detection devices can noticeably reduce the fear of falling and ensure that the person receives aid in time. One of the aims of the research project supported by the Research Council of Lithuania "Smart Gerontechnology for Healthy Ageing" (grant No.SEN-06/2016) was to determine the knowledge about various technologies and the opinion about the usage of fall detection devices among older adults.
Methods: 308 patients (≥60 years): 56 patients of Geriatric Department and 252 older adults living in the local community were questioned about the usage of technologies and their opinion about fall detectors.
Results: The mean age of respondents was 75.8±6.1 years, 80.2% were female. A significant relationship was found between lower education and rarer usage of refrigerators, vacuum cleaners and washing machines, mobile phones and the Internet. A significant relationship was found between higher education and the intention to test new technical devices ($P<0.001$). 33% of respondents knew about fall detection, 80% of respondents wanted to use fall detection devices, especially females. Only 65.5% of respondents would have the Internet access if needed for the fall detection.
Conclusions: Older adults with higher education were more informed about technologies. Most of older adults would like to use fall detectors.

Area: Acute care

P-356
A case of Cefepime-induced encephalopathy in an elderly patient

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Cefepime-induced encephalopathy has been sporadically reported worldwide. Previous reports documented cases of encephalopathy and seizures especially in patients with renal impairment. We report a case of an elderly gentleman with diabetic nephropathy who was given Cefepime. Cefepime was empirically started for catheter-related UTI and dose adjusted according to the creatinine clearance. On the 3rd day of Cefepime, patient developed oral and upper limb dyskinesia together with altered mental status. Blood tests did not show any electrolyte imbalances. Urine and blood culture were negative. Magnetic resonance imaging of the brain was negative for any acute lesions. Electroencephalogram was suggestive of severe diffuse encephalopathy. Cefepime was immediately discontinued. Patient received anti-convulsant medications to cover for a possible seizure. Within 4 days of discontinuing Cefepime, there was complete resolution of the symptoms and patient returned to his baseline sensorium. Based on this case, Cefepime-induced encephalopathy can still occur despite administering a renally adjusted dose. Closer monitoring of patients with renal impairment given Cefepime should be done especially in elderly patients. A revision of the recommended dose may be needed for elderly patients with renal impairment.

P-357
A case presentation of a necrotic scalp rash misdiagnosed for a Herpes Zoster infection

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Introduction: Giant cell arthritis (GCA) is the most common form of systemic granulomatous vasculitis in elderly. Scalp necrosis is a rare unusual complication and can be the first presenting feature of GCA.
Methods: I am presenting a case of necrotic lesion affecting right temporoparietal area in a 75 years old man.
Results: The man presented to his GP with a necrotic skin rash with a size of five pence coin which was tender on palpation. He received a seven-day course of Acyclovir as it thought to be Herpes Zoster infection. The lack of resolution of symptoms post the antiviral treatment prompted the GP to seek second opinion. This man had a history of lethargy and a stone weight loss for a period of 4 month. He denied any other constitutional symptoms, polymyalgia symptoms or jaw claudication. He did not complain of headache but he reported tenderness at the abnormal area of skin necrosis and the adjacent vessel. On clinical examination, there was evidence of necrotic round skin lesion in the temporoparietal area and tender on palpation prominent vessel attached to it. The lesion was covered by a scab. There was no tongue necrosis or visual field defect. The biochemical markers for inflammation were raised. The differential diagnosis of GCA came as a possibility and this was confirmed with the temporal artery biopsy.
Conclusion: Skin necrosis is a rare clinical presentation of GCA. Clinically, it might be misdiagnosed as erosive pustular dermatosis, pyoderma gangrenosum or herpes zoster infection.

P-358
Acute confusional syndrome in the elderly – case report

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The acute confusional syndrome is a frequent reason to attend the emergency department (ED) in the elderly. It is an entity characterized by altered state of consciousness, global affection of cognitive functions, disorientation, psychomotor agitation/inhibition, and sleep-wake disorders, which arise suddenly, may be fluctuating or recurrent, and being most often associated with infection or iatrogeny. A 74-year-old woman went to the ED for disorientation and agitation with 4 hours of evolution. She was disoriented, non-cooperative, verborreic, subfebrile (37.8°C), hemodynamically stable, with no other changes. Analytically, leukocytosis (12,400 G/L) and anemia (hemoglobin 11.4 g/dl). Chest X-ray and rapid urine test not suggestive of infection. Computed tomography (CT) showed multiple expansive lesions with surrounding edema and left midline deviation, suggestive of brain metastases. She was admitted in the internal medicine department to investigate the possibility of occult neoplasm. Several complementary diagnostic tests were performed, including thoracoabdominal-pelvic CT scan showing pericymetric nodules in the liver and an area of eccentric parietal thickening in the sigmoid loop compatible with primary tumor lesion. Rectosigmoidoscopy with a biopsy confirmed a presence of adenocarcinoma. During the hospitalization she maintained corticotherapy with dexamethasone and, even after performing palliative cerebral radiotherapy, remained confusional. Thus, she was referred to a Palliative Care Unit after consensus in the therapeutic decision meeting. The acute confusional syndrome in the elderly, as demonstrated, requires high clinical suspicion, special attention to clinical data and a careful selection of complementary exams to the etiological diagnosis and for a correct therapeutic approach.

P-359

An early geriatric follow-up visit results in more hospital-initiated treatments compared to an early geriatric follow-up phone call

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Introduction: In a previous study, we found that an early geriatric follow-up visit significantly reduced readmissions among geriatric patients admitted to the emergency department (ED). This effect was strongest the first week after discharge. Therefore, we investigated and compared hospital-initiated treatments performed during the first week after discharge in the intervention group and the control group, respectively.
Method: The study was a quasi-randomised controlled trial. The participants were 75 years or older, admitted to the ED with one of the following diagnoses: pneumonia, chronic obstructive pulmonary disease, dehydration, delirium, constipation, anaemia, heart failure, urinary tract infection or other infections. Patients were discharged directly from the ED. Intervention group patients received a follow-up visit, the patients in the control group received a phone call. Hospital-initiated treatment was registered through patient records.
Results: Treatment of 524 patients was registered from 1th December 2015 until 31th November 2016. During the first week after discharge more patients of the intervention group experienced changes in medication (77% vs 24%, <0.001), blood tests (57% vs 23%), increase in the amount of home care (17% vs. 6%p<0.001), and treatment with iv. antibiotics in the home (9% vs. 5%, p=0.05). Also, a tendency towards more patients having fluid replacement therapy was observed (15% vs. 10%, p=0.09).
Conclusion: An early geriatric follow-up visit resulted in more hospital-initiated treatments compared to an early geriatric follow-up phone call.

P-360

Anticholinergic burden scales disagree on degree of burden in an older inpatient population

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Introduction: Medications with anticholinergic properties are widely used in clinical practice. The concept of cumulative anticholinergic burden is widely accepted and has been associated with adverse outcomes. Any attempt to reduce anticholinergic burden relies on the methods used to quantify it. This abstracts reports work from a quality improvement cycle testing the agreement between different anticholinergic burden scales on a cohort of older patients admitted to an acute frailty unit.
Methods: A retrospective review was completed of the first 100 admissions to the acute frailty unit from the 1st of February 2017. Medication on admission was recorded. Anticholinergic burden was then calculated using the Anticholinergic Cognitive Burden Scale (ACB), the Anticholinergic Risk Scale (ARS) and the Anticholinergic Drug Scale (ADS). The median score per patient was compared.
Results: Data was available from 86 admissions. Mean age 83 (SD 7.5), 63% female. There was a significant difference in median anticholinergic burden as quantified by the different scales ACB 1 (IQR 0–3), ARS 0 (IQR 0–1), ADS 1 (IQR 0–2) P<0.001. There was a clinically significant difference in those identified as having significant anticholinergic burden ACB 23 (27%), ARS 12 (14%) and ADS 18 (21%).
Conclusions: The different scales do not agree on the cumulative anticholinergic burden experienced by individuals in this patient group. The clinical use of different scales to target and reduce anticholinergic burden would result in meaningfully different changes to medication for patients. These findings are highly relevant to the development of potential interventions to reduce anticholinergic burden.

P-361

Are patients who are admitted following a fall more likely to have a multi-factorial falls risk assessment (MFRA) than those admitted for other reasons?

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Introduction: The National audit of inpatient falls (2015) evaluated hospital services primarily against NICE CG161 which makes recommendations to prevent falls for all hospital inpatients aged 65+. This included a case note review of up to 30 patients (per hospital) aged 65+ who were admitted for any non-elective reason (not just falls).
Methods: Using 23 questions in the audit relating to MFRA, comparisons were made between patients who were admitted for a fall or other reasons. The two patient groups were compared using the Mann-Whitney test or chi-square test, as appropriate.
Results: Approximately a quarter of patients were admitted because of a fall (23.5%; n=1,140/4,846). 12 of the 23 audit questions were statistically significantly more frequently reported for patients who were admitted because of a fall (p<0.05): 1. Asked about history of falls; 2. Assessed for cognitive impairment; 3. Assessed for presence/absence of delirium; 4. Assessed for fear of falling; 5. Mobility care plan; 6. Record of use of walking aids; 7. Lying and standing blood pressure measured; 8. Assessed for medications that increase falls risk; 9. Medication review with regard to falls risk; 10. Falls care plan; 11. Given written information about falls risk; 12. Given oral information about falls risk.
Conclusions: NICE CG161 states that all patients aged 65 years or older (not just those admitted following a fall) should be considered for a MFRA however, a range of assessments and interventions for prevention of falls were statistically more frequently reported for patients admitted because of a fall than for other reasons.

P-362

Atypical illness presentation in elderly patients evaluated in the emergency room

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Introduction: Elderly patients with an infectious disease, frequently manifest atypical symptoms which implies greater difficulty in making a proper diagnosis. Our objective was to determine the incidence of atypical symptoms in elderly patients evaluated by a team of geriatricians in the emergency department and the different forms of presentation of the disease.
Methods: We conducted a prospective descriptive study on 148 elderly patients presented at the emergency unit and diagnosed with pneumonia or urinary tract infection. Pneumonia was established as the appearance of pneumonic condensation in Rx and urinary infection as the existence of pyuria in the urinary sediment.
Results: A total of 148 patients were included, with a mean age of 87.5 years. 60.1% had pneumonia and 39.9% had a urinary tract infection (UTI). 54.1% were women, the average Barthel Index was 55 points, 45.3% had cognitive impairment and 58.8% lived with family. According to the triage Manchester were classified as minimum Urgent (yellow) 96.4%. 73.6% of the patients presented some atypical data (Pneumonia 66.3%, UTI 84.7%), in 27% of the

cases the clinic was exclusively atypical (Pneumonia 11.2%, UTI 51%). Patients with IB <40 or with cognitive impairment are more likely to present atypical clinic. We found no association between atypical clinical presentation or cognitive impairment and death during hospitalization.
Conclusions: Atypical illness presentation in elderly patients in the emergency department is highly prevalent, more common in patients with cognitive and/or previous functional impairment. These conditions were associated with higher mortality during admission.

P-363
Audit presentation on CT head requests in patients over the age of 70 presenting to acute admissions units at Leicester Royal Infirmary, United Kingdom

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Introduction: CT head (CTH) is an increasingly frequent investigation among elderly patients. It is commonly used in the assessment of CVAs; dementia; falls; acute neurological illness and staging of tumours. There is evidence that CT head is routinely requested to investigate patients with confusion, despite recommendations against the routine use. We conducted an audit looking at the CT head requests among elderly patients admitted in the Acute Medical Units at Leicester Royal Infirmary.
Method: We audited notes of 80 patients admitted in admissions units at LRI who had CT head between November 2016-January 2017. We looked at:
- Most common reasons for CTH requests.
- Were the requests in line with the current existing guidelines for CTH requests?
- Most common reasons for CTH requests in confused patients and their justification.

Results: Common reasons for CTH requests: Fall and head injury (35%), Fall without head injury (32%), confusion alone (25%), other (8%). 66% urgent (1 hr) CTH requests were not in line with the current NICE guidelines for CTH requests in head injury & stroke.30% of CTH requests for delirium/confusion could be classified as low risk & inappropriate. Out of 77, 30 (39%)had previous CTH in 12 months & 16 (53%) were for same reason. 78% of CT scans requested did not show acute changes.
Conclusion: There would appear to be tendency to over investigate with CT head. We continue to order CT head in patients admitted with delirium (without always documenting guideline –compliant reasoning). There appear to be a lack of appreciation of guidelines when CT head were requested.

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Barriers to older medical patient walking in hospital

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Background: We aimed to identify patient- and time-specific barriers to walking among older medical inpatients.
Methods: 154 medical inpatients aged ≥65 years, premorbidly mobile, with an anticipated length of stay ≥3 days, were recruited. Step-count (Stepwatch Activity Monitor) and potential barriers to walking were recorded daily until discharge or for a maximum of five weekdays. These included medical status, walking ability, tethering to the bed, agitation/confusion, reported fatigue, pain, fear of falling, and instructed bed-rest. Linear mixed effects models were used to measure the associations between log-transformed daily step-count and potential barriers, adjusting for patient characteristics on admission: demographics, physical performance (SPPB), number of medications, and illness severity (CIRS-G).
Results: Complete data existed for 147 patients. In the fully adjusted mixed effects model, walking increased linearly (12%, 95% CI: 2% to 23%) for each observed day. However, the mixed effects model with patient-level random intercept and slope factors fit the data best, suggesting there was considerable patient-level variability in step-count. The ability to walk independently was associated with more daily walking (46%, 95% CI: 12% to 91%); while a fear of falling (−27%; 95% CI: −46% to −1%), tethering to the bed (−21%; 95% CI: −39% to −3%) and instructed bed-rest (−68%; 95% CI: −78% to −47%) were associated with less walking.
Conclusion: Daily walking was variable, even when adjusted for patient characteristics on admission. The results suggested that patients tethered to the bed, unable to walk independently, and fear falling may require more support to walk in hospital.

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Benefits of an In-reach programme & Emergency Care Bundle for patients with idiopathic Parkinson's disease

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Introduction: Previous analysis of unplanned admissions in patients with idiopathic Parkinson's disease (iPD) to our hospital in 2014 identified opportunities to improve specific areas of care. The aim of this study was to determine the benefits of introducing a reliable, structured assessment protocol to this group of patients.
Methods: A daily, Geriatrician-led in-reach visit to the Emergency Assessment Unit of a University teaching hospital was commenced. This incorporated an Emergency Care Bundle to prevent and address harms arising from medication errors, missed delirium and other elements of essential care. The project was deployed from August 2015. After a 12-month period, data was collated retrospectively and analysed. This was compared with the 2014 cohort.
Results: 90 patients (male 58.9%, mean age 77.3 years) accounted for 134 admissions. Mean age, sex and dementia prevalence (34.4%) were similar between the 2014 and intervention cohorts. 86/134 (64.2%) admissions were seen by the in-reach team. An increase in the proportion of patients seen within 24-hours of admission was observed from 8.8% to 61.2%, and a fall in those never seen from 65.4% to 23.9%. There were improvements across the spectrum of medication errors, but particularly a fall in missed doses (24.3% to 16.6%). There was a rise in detection of delirium (22.1% to 29.1%) and fall in median length of stay by 2 days.
Conclusions: Introduction of this simple, cost-effective intervention improved quality markers of care, reduced potential harms and enhanced patient flow, with additional benefits in staff education and expressed patient/caregiver satisfaction.

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Black and Blue... and Yellow

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Case report: A 77 year old lady with no medical history was admitted after a fall with a long lie. On examination she was noted to be jaundiced with scleral icterus, with confusion and signs of head injury. Blood tests showed macrocytic anaemia (Hb 90, MCV 108), platelets of 25, CK of 2860. Bilirubin was 28, with an ALT of 70 and ALP of 37. The CRP was raised and renal function was acutely impaired. The initial differential was between a hepatic or

haemolytic cause. She was treated with fluids and antibiotics for sepsis of unclear source. Abdominal ultrasound was normal. She was reviewed by Haematologist who felt her symptoms could be explained by B12 deficiency and advised intramuscular B12 replacement whilst awaiting the results of haematinics and haemolysis screen. Direct Coombs test was negative, folate was normal, but B12 level was markedly low at 50. Reticulocyte count 46.1 10 9/L. Blood film showed red cell anisopoikilocytosis, with oval macrocytes, no evidence of polychromasia, true thrombocytopenia, and neutrophilia with hypersegmented neutrophils. This blood film was suggestive of B12 or folate deficiency. Collateral history revealed she had poor diet for some years. After starting intramuscular hydroxocobalamin there was good reticulocyte response and normalisation of platelets.

Conclusion: Vitamin B12 deficiency is a familiar cause of low cell counts, but is less well known as a rare but recognised cause of jaundice due to high conjugated bilirubin. Untreated the haematological and neurological sequelae may be severe, and prompt recognition and treatment is essential.

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Bleeding risk with direct oral anticoagulant and vitamin K antagonist in geriatric patients

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Background: Few "real world" data with direct oral anticoagulants (DOAC) are available in geriatrics population Objective: To compare the risk of bleeding in very old patients with non valvular atrial fibrillation (NVAF) hospitalized in geriatric care, receiving DOAC or vitamin K antagonist (VKA), with a follow up of one year.

Methods: Prospective, observational study in very old patients hospitalized in geriatric units with NVAF, included between January 2013 and June 2014. Follow-up data (bleeding events or death were obtained by phone calls to the General Practitioner. Major or non major bleeding events were define according the ISTH criteria. Risk factors of hemorrhages were estimated using a logistic regression.

Results: Four hundred and forty-one patients (71% were female) were included (300 VKA and 151 DOAC users). Mean age was respectively 87.1 (SD 5.4) and 85.7 (SD 5.1) years. In the overall population mean MMSE was 19.1 (SD 7.2), HASBLED score was 2.3 (SD 0.9). Cockcroft creatinine clearance was 48.8 (SD 22.1) ml/min, albumin was 31.4 (SD 5) g/l. During the one year of follow up, 103 bleedings outcome were reported, with a lower tendency in the DOAC group (19.9%) compare to the VKA group (24.3%), p=0.06. Risk factor of bleeding with VKA were history of bleeding (OR: 5.36 (95%CI, 1.69–16.98)), creatinine clearance <40ml/min (OR: 2.30 (95%CI, 1.13–4.68) and hypoalbuminemia (OR: 2.03 (95%CI, 1.06–3.90)). Risk factor of bleeding with DOAC was a lower platelet rate <250000/mm^3 (OR: 2.69 (95%CI, 1.06–6.85)). Death rate was significantly lower in the DOAC group (21.8%) than in the DOAC group (33.3%), p=0.005.

Conclusion: These "real world" data in geriatrics population indicate that DOAC are well tolerated in comparison to VKA. Further studies in larger population are necessary to confirm these results

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Can we modify the functional and cognitive trajectory in a hospital with exercise? A randomized clinical trial

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Introduction: Frail older adults have reduced functional and physiological reserves, rendering them more vulnerable to the effects of hospitalization. Despite the theoretical support for the idea that exercise can prevent nosocomial disability, this idea has not been fully translated into clinical practice.

Methods: Randomized clinical trial in patients admitted to a Department of Geriatrics. Patients who met inclusion criteria were randomly assigned to the intervention (IG) or control group (CG). The intervention consisted of a multicomponent exercise training programme, composed of supervised progressive resistance exercise training at low-moderate intensities, balance-training, and walking for 5–7 consecutive days. Evaluations of function, cognition, depression and quality of life have been conducted at admission and previous to discharge.

Results: 267 patients have completed pre/post evaluations. Control group (CG) n=141, intervention group (IG) n=126). Dropout has been 59, due to different medical reasons. Mean age was 87.10, mean BMI 27.16, mean CIRS-G 12,04, mean MNA 23.41. In the IG, significant improvements were observed after the intervention in all the variables related with function: SPPB, gait speed, handgrip and Barthel ($p<0.01$), cognition MMSE, TMT-A, Isaacs test ($p<0.005$), depression: Yesavage 15 ($p<0.05$), quality of life: EQ-5D ($p<0.05$) and pain ($p<0.05$). The CG had no significant improvements in any of the cognitive, mood or quality of life parameters studied.

Conclusion: An individualized multicomponent exercise program is a feasible and an effective therapy in frail older adults admitted to a Department of Geriatrics and should be prescribed routinely

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Causes and impact of surgical delay in patients undergoing hip fracture

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Objective: To study the causes of surgical delay (SD)-more than 48hours since the admission-, in patients with hip fracture and the impact in the hospital stay, thefunctional impairment, complications and mortality.

Methods: Observational study prospective that includes all patients admitted for fracture since 1st July 2015 and 15th February 2017 in a secondary hospital in Madrid. We did a descriptive analysis of the population characteristics, as well as an univariate analysis of differences between the two groups of patients to study (patient without SD and with SD more than 48 hours) by $\chi 2$ test and T for independent samples.

Results: n: 286 patients, of which 273 were treated surgically (95.5%). Of these, 61.9% was operated in the first 48 hours, 9.9% had SD due to treatment with anticoagulants or antiplatelet drugs, 6.2%b y clinical instability and 20.1% by logistical problems. Analyzing the causes of DQ for days in the week, it was noted that only 18% of the patients who came to the emergency room on Friday was intervened in the first 48 hours in front of the 71.7% of the rest of the week days ($p<0.001$), due to logistical problems (52% vs. 13.9% respectively, $p<0.001$). Mortality, theaverage of complications and functional decline showed no statistically differences between the patients with SD and without SD. The hospital stay was higher, however, in patients with SD (12.9 Vs 10.3, p=0.007).

Conclusion: A high percentage of patients admitted for hip fracture does not intervene in time recommended by clinical guidelines due to logistical problems, being especially important in patients that are admitted in weekend. The SD was associated with a higher hospital stay, not existing in the present study differences between both groups in mortality, complications and functional impairment.

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Clinical impact of a clinical pharmacist team's interventions in acute geriatric ward

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Elderly patients are at increased risk of drug related problem (DRP) due to polypharmacy, pharmacokinetic and pharmacodynamic changes. In order to prevent and reduce DRP, a ward-based clinical pharmacist team conducts medical review in an acute geriatric ward. The objective of this study was to assess clinical impact of pharmacist's intervention (PI) on DRP identified on elderly hospitalized patients.

Methods: This prospective study was conducted in a 24-bed acute geriatric unit of a French university hospital from December 2016 to April 2017. Type of DRP and PI, defined by the French Society of Clinical Pharmacy's (SFPC) codification, were collected. PI's clinical impacts were assessed by a panel of nine geriatricians with the French validated tool CLEO of SFPC (6 levels: vital, major, moderate, minor, null, and negative).

Results: Total of 135 PIs were analyzed on 82 patients. Mean age were 84.7±6.8 years and mean number of medication 7.9±3.6 per patients. Geriatricians have accepted 97/135 PI. Most involved drugs were psychotropic, antithrombotic and analgesic drugs. Geriatricians' panel considered clinical impact of PI as: 3.7% vital, 17% major, 20.7% moderate, 37% minor, 12.6% null. 6.7% would have compromised the vital prognosis of the patient if PI were accepted by geriatricians. 80% of vital PI concerned drug induced QT syndrome and torsades de pointe.

Conclusion: The work of clinical pharmacist team permitted to avoid 1 vital DRP per 15 patients. Active involvement of clinical pharmacists in geriatric team leads to optimize drug therapies and ensure medication safety in elderly hospitalized patient.

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Community based urgent care: An alternative to hospital admission

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Introduction: The current and projected rise in the elderly population is putting traditional NHS care under unprecedented pressure. It has been estimated that up to 12% attendances to A+E could have their needs met elsewhere [1]. The recently published NHS 5 year forward view requires care providers to integrate care more, with a focus on out of hospital care [1]. The Integrated Community Urgent Care Service in South Manchester was designed to meet this need. The urgent care team is an integrated team which includes community nurses and social work assessors. Referrals are invited from any health or social care staff when it is identified that an urgent assessment and needs based care plan are required within 24 hours.

Methods: The service gathers data on reasons for referral and outcome of assessments. This data is gathered contemporaneously and this study has looked at 4 months of data.

Results: A total of 259 calls were received.154 (59.5%) were referred to the urgent care team for assessment and 105 were forwarded straight to another appropriate community service.132 (85.7%) were concerning admission avoidance.9 (5.8%) were from A+E relating to admission deflection.13 (8.5%) were regarding supporting transfer of care back into the community. Only 2 people required hospital admission following assessment.

Conclusions: The Integrated Urgent Care Service has demonstrated that an integrated health and social care assessment team can facilitate the co-ordination of local care in the community, avoiding unnecessary hospital admissions.

References:

[1] NHS England (2017) NHS Five Year Forward View, Available at: https://www.england.nhs.uk/five-year-forward-view/next-steps-on-the-nhs-five-year-forward-view/ (Accessed: 14th April 2017).

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Comparison of independent predictors of emergency department length of stay in the 70+ population in the Nijmegen region, The Netherlands

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Introduction: The amount of older patients attending the emergency department (ED) is increasing and contributing to crowding at the ED. Therefore, predictors for prolonged ED length of stay (ED-LOS) in the 70+population was examined.

Methods: All patients ≥70 years who visited the ED of two hospitals, of which one university hospital (Radboudumc) in the year 2014 were included. A random selection of 2000 patients in each hospital was made. Data was collected retrospectively by examining all 4000 medical files. Prolonged ED-LOS was defined as a length of stay that lasted longer than 75th percentile of ED-LOS in the study population. Independent predictors of ED-LOS were established by logistic regression analysis.

Results: The 75th percentile of ED-LOS in Radboudumc was 293 minutes (mean 230, SD 115.5), versus 240 minutes in other hospital (mean 189, SD 91.1). All patient and visit characteristics differ significantly between hospitals ($p<0.05$), except for part of the day ($p=0.79$) and part of the year ($p=0.12$) on arrival. In both hospitals matching predictors for prolonged ED-LOS were, respectively: seen by specialism internal medicine (OR 2.7, 95% CI: 1.9–3.8; OR 3.0, 95% CI: 2.3–4.0); total amount of diagnostics and treatment (OR 1.5, 95% CI: 1.4–1.7); total amount of consultations (OR 2.3, 95% CI: 1.9–2.8; OR 2.6, 95% CI: 2.1–3.3); being hospitalized (OR 1.4,95%, CI: 1.1–1.9; OR 2.6, 95% CI: 2.1–3.3) and moderate urgency category (OR 2.8, 95% CI: 2.0–4.1; OR 1,3, 95% CI: 1,003–1,8). Age, cognitive impairment, polypharmacy or higher co-morbidity index were not associated with prolonged ED-LOS.

Conclusions: Seen by specialism internal medicine, higher amount of diagnostics and treatment, higher amount of consultations, a moderate urgency category and being admitted to hospital were matching predictors for prolonged ED-LOS of both hospitals.

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Determinants of self-rated health in older adults before and three months after an emergency department visit: a prospective study

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Introduction: Older patients often experience adverse health out-

comes after an Emergency Department (ED) visit which potentially affects self-rated health (SRH). We investigated the determinants of decline in SRH during three months after an ED visit.
Methods: This was a multi-center prospective cohort study including acutely presenting older (≥70 years) patients in the Emergency Department (The Netherlands). Patients were asked to self-rate their health prior to the acute disease episode between 0–10, and a geriatric assessment was administered. The main outcome was a decline in SRH defined as a transition of a SRH ≥6 to a SRH <6 three months after the patient's visit to the ED.
Results: At baseline there were 1219 (81.2%) patients with a sufficient SRH and 283 (18.8%) patients had an insufficient SRH. After three months, 870 patients had a stable SRH (71.4%), 140 patients declined in SRH (11.5%). Independent predictors of decline in SRH were: male gender (OR 1.84), living in residential care or nursing home (OR 2.76), number of medications (OR 1.08), using a walking device (OR 1.73) and Katz-ADL score (OR 1.23). Patients with functional decline three months after an ED visit, show a steeper decline in mean SRH (0.68 points) than patients with no functional decline (0.12 points, $p<0.001$).
Conclusions Decline in SRH after an ED visit in older patients is mainly dependent on factors of functional capacity and functional decline. Preventive interventions to maintain functional status could be the solution to maintain SRH.

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Developing a bedside vision screening tool as part of a multifactorial falls risk assessment (MFRA)

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Introduction A comprehensive national audit in 2015 of 4,846 patients aged 65+ showed that only 48% of inpatients had a vision assessment by the third day of admission. NICE CG161 states that a MFRA should identify the patient's individual risk factors for falling in hospital and this may include visual impairment.
Methods: The RCP collaborated with the British and Irish Optic Society, The College of Optometrists, The Royal College of Ophthalmologists and the Royal College of Nursing and NHS Improvement to produce a straightforward bedside vision check tool.
Results: The tool is designed to alert staff to potential concerns that can then be discussed with the medical team for evaluation. The tool contains:
- Suggested questions to ask the patient to check general vision.
- Sample visual tests for distance and near vision.
- Information for clinicians about vision conditions common in older people.
- Guidance for improving immediate safety concerns relating to poor eyesight.

Conclusions: Compared with normal-sighted persons, individuals with a visual problems are almost twice as likely to fall and to have recurrent falls and resultant fractures [1,2]. Despite this, a recent audit revealed that less than half of older patients had a vision assessment when admitted to hospital. Feedback from audit site participants made it apparent that clinicians struggled to find a workable, standardised approach to basic vision assessment that is achievable in an acute hospital setting. We hope by providing clearer guidance may promote a better and more consistent approach.
References:
[1] Legood R, Scuffham P, Cryer C (2002) Injury Prevention 8.(2), 155–160
[2] Thomas Pocklington Trust (2013).

P-375
Development of a staff questionnaire for the national audit of dementia (care in general hospitals)

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Introduction: The National Audit of Dementia measures the performance of general acute hospitals in England and Wales against criteria relating to the care of people with dementia. For Round 3 of the National Audit of Dementia, a staff questionnaire was created through consultation with frontline hospital staff, allowing comparison of data given by the hospitals at an organisation level and the experience of staff working on the wards.
Method: Ten pilot sites took part in workshops to establish questionnaire content and question format. The questionnaire was distributed in 199 hospitals across England and Wales to staff working with adults in inpatient facing roles. Questionnaires were returned anonymously.
Results: A total of 14,416 eligible questionnaires were returned. Staff experience was compared with organisational stated practice on aspects of care. 99.5% hospitals have a system to collect personal information about the person with dementia. 40% of staff said they could not access such information. 86% of hospitals have 24-hour food provision, but 73% staff said they could provide food between mealtimes. 98% of hospitals reported mealtimes free of clinical activity. 68% of staff agreed.
Conclusions: Creating a staff questionnaire for Round 3 allowed comparison between staff opinions and organisation reporting on key items relating to information supporting care and patient nutrition. This identifies gaps between hospital policies and practice at a national and local level.

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Diagnostic efficacy of bedside-ultrasound to detect dehydration in elderly patients

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Background: To determine whether an elderly patient is dehydrated or not often reveals challenging, as both, clinical and laboratory signs are unspecific and may be frequently flawed by age-driven factors.
Methods: Bed-side ultrasound was applied in a random sample of patients attending an emergency unit. Candidate ultrasound-markers had to be easily retrievable by bedside-ultrasound and associated with changes in fluid balance. Those were analyzed and compared with the clinical diagnosis. As there is no gold-standard available in a bedside-setting, a clinical synopsis was applied to identify patients with dehydration. A control group of patients without signs of significant disturbances of fluid balance was used as reference.
Results: Following the clinical algorithm 78 patients were classified as dehydrated and compared with 121 patients without signs of significant fluid dysbalance. There were significant differences found between these two groups concerning compressibility, variability of diameter assessed by M-mode and diameter during an inspiration maneuver of the vena cava inferior (<0.001). However, a ROC-analysis gave only moderate values for diagnostic efficacy for all these parameters, the best results in this context showed the diameter of the vena cava inferior while an inspiration maneuver was performed. AUC=0,73.
Discussion: Ultrasound can easily be applied in a bed-side setting and may support diagnosis of dehydration in the elderly. To confirm this diagnosis, however, remains challenging and still needs a synopsis covering both clinical and technical data.

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Is electroconvulsive therapy effective and safe in elderly with severe depression?

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Background: Depression in late life is an important public health problem. Between 30–40% of elderly depressed patients fail to respond to oral antidepressive treatments. Therefore electroconvulsive therapy (ECT) may be in alternative. The aim of this study was to assess the efficacy and safety ECT in depressed elderly patients.
Patients and methods: It is a retrospective (2013–2016) study including all inpatients aged over sixty years and treated by ECT for a severe depression.
Results: We gathered six cases, mean age was 65 (60 - 75 years), 83,3% were married and 66,6% had a law educational level Family history of mental illness was found in 16,6%. Personal history of depressive was found in 66,6%. Medical history of chronic illness was found over 33,3% of our patients. In all cases, several antidepressive oral treatments were tried before the ECT was indicated. The clinical characteristics were a severe depressive symptoms associated with: cognitive impairment (16,6%), psychotic features (50%), melancholic features (50%), with both psychotic and melancholic features (33,33%), suicidal thought or attempts (66,6%). The Global Assessment of Functioning scale increased significantly after ECT (25 vs 60, $p<0.05$). The Hamilton Depression Rating Scale dropped from 26 to 8 after ECT Incident during the ECT were noted in two cases (teeth and tongue injury and bradycardia).
Conclusion: Although our small sample, the results of our study suggest that ECT might be an effective and safe technique in elderly. It has to be considered as an alternative to oral treatment especially in resistant depressive episodes.

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Early stage of non-Hodgkin lymphoma diagnosed by biopsy from head and neck area in elderly

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Introduction: The malignant lymphoma to develop from lymphoid tissues accounts for a major ratio in hematological malignancies. It is often that superficial lymphadenopathy is a diagnostic opportunity as for the non-Hodgkin lymphoma (NHL). Performed biopsy, head and neck area is very easy to approach. We reviewed the malignant lymphoma that led to a diagnosis by the biopsy of the head and neck area in elderly.
Methods: From 2003 to 2014, we intended for 80 patients whom malignant lymphoma was diagnosed from head, neck area and decided clinical stage I and II by Ann Arbor clasification. We studied more than 65years patients about gender, site of biopsy, pathological findings, clinical stage, therapy, prognosis.
Results: All cases are 48 cases, male female ration is 25/23, median age 75years. Site of biopsy, cervical lymph node 17 cases, tonsil 5 cases, oral cavity 6 cases, nasal cavity 5 cases, laryngeal tumor 4 cases, papiloid gland 3 cases, eye lid 2 cases, eye cavity 1 case, maxillary antrum 2 cases. Clinicl Stage by Ann Arbor classification, stageI, 28 cases, II, 20 cases. Pathological findings, diffuse large B cell lymphoma (DLBCL) 32 cases, MALT 6 cases, follicular lymphoma 2 cases, NK/T cell lymphoma 2 cases, others 6 cases. About therapy, R-CHOP therapy or CHOP based therapy 38 cases, radiation therapy alone 4 case, best supportive care 2 cases, watchfull waiting 2 cases, other chemotherapy 2 cases. In DLBCL that was most popular pathological type, complete response rate was 84.6%, median survival time was not reached, 5-year overall survival was 69.9%, there were no significant diference between male and female, less than 80 years and more than 80 years.
Conclusions: Head and Neck area are very important biopsy site for malignant lymphoma. And very good prognosis in StageI&II elderly patients. Age was not influence for clinical outcome in more than 65 years.

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EBV-positive diffuse large B-cell lymphoma of the elderly: A differential diagnosis for sepsis

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Introduction: Epstein-Barr virus (EBV)-positive diffuse large B-cell lymphoma (DLBCL) of the elderly is an uncommon aggressive lymphoma subtype arising in immunocompetent patients >50 years. Disease in elderly could have an atypical presentation and compromised functioning. We report a fatal case of EBV-positive DLBCL of the elderly in an 84-year-old man presenting as a respiratory sepsis and multiorgan failure.
Methods: Mr. E., an 84-year-old man, was admitted to hospital with a 3-days history of asthenia, functional decline, fever, unintelligible speech, and delusions. It was associated since two months ago with anorexia, weight loss, and an exertional dyspnea. Imaging demonstrated pulmonary infiltrate at right lower lobe. Mr. E. was transferred to Acute Geriatric Unit with diagnosis of pneumonia and delirium. Empirical treatment with antibiotics was started despite which we observed persistent fever, elevated bilirubin and cholestasis. CT-scan showed pulmonary patched consolidation and retroperitoneal and mediastinal lymphadenopathy.
Results: He developed renal and liver failure, and shock, and he was referred to Intensive Care Unit. Nevertheless he worsened with multiorgan failure, metabolic acidosis, and pancytopenia, and, accordingly, it was done bone marrow aspirate. He died sixteen days after his hospital admission. Bone marrow aspirate showed a neoplastic polymorphous lymphoid population composed of Reed-Sternberg (HSR)-like cells which expressed CD20, CD30, EBV/LMP and MUM-1 and the diagnosis of EBV-positive DLBCL of the elderly was made.
Conclusions: Disease in elderly could have an atypical presentation and compromised functioning. EBV-positive DLBCL is an uncommon aggressive lymphoma subtype and has a worse survival than would be expected in patients with EBV-negative DLBCL.

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Education of emergency physicians in geriatrics improve knowledge and skills towards older patients admitted to the emergency department

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Introduction: The amount of older patients attending the emergency department (ED) is increasing. Emergency physicians (EP's) regard care for older patients as time consuming and complex, while they lack sufficient geriatric knowledge and skills to provide adequate and timely care. This study evaluates the effect of a geriatric curriculum on knowledge, attitudes and medical treatment of EP's.
Methods: EP's of an university hospital participated in a one-year designed geriatric curriculum, started in 2016 with a six-week e-learning module followed by monthly eigth interactive sessions by a geriatrician. Effects were measured by multiple-choice knowl-

edge tests, questionnaires regarding emergency doctor's attitudes (Aging Semantic Differential and self-perceived knowledge (Needs Assessment Scale). Also, patient records were judged regarding presence of geriatric assessment components performed by the EP before and after the intervention.
Results: 13 EP's participated, all completed the six-week e-learning module, monthly session attendance differed between EP's (mean 6.3±2.6 hours). Knowledge on geriatric syndromes increased: before 5.1 versus after 6.8, $p<0.01$. Self-perceived knowledge increased significantly: before 41.8 versus after 54, p=0.000. There was no change in aging stereotype attitudes (before 94.6; after 91.5; p.027). EP's paid more attention to social support (before present in 30%, after in 52%; p=0.02) and activities of daily living (before 12%, after 28%; p=0.05) after intervention.
Conclusions: Geriatric education equips EP's with more knowledge and confidence to handle geriatric emergency presentations.

P-382
Evaluation of quality indicators for patients with acute cerebrovascular accident in Primary Care

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Background and aim: Study on the quality of clinical care for acute cerebrovascular accident (ACVA) patients assigned in a Primary Care Health Center (HC) and to compare them with ACVA patients in the Health Area (HA) (during the period 2015).
Method/Design: Longitudinal evaluation: Palmer's Quality Cycle-Setting: An urban health care center. Population and Sample: Patients (total according to inclusion criteria, year 2015) with ACVA (n=315). Interventions:-Internal evaluation, dimensions: scientific-technica, quality, adequacy, accessibility, continuity of care; data related to the care process and intermediate results; explicit, evidence-based procedural criteria. Subjects: analysis of coverage. Analysis on the evolution of treatment compliance. The Z statistical test for comparing proportions, alpha 0,05.
Results: Compliance criteria (year 2015):-Population with a history of ACVA: HS 315, HA 5268.-Patients with ACVA, who have at least one TA <140/90 in the period:HS 190 patients (60.32%), HA 3326 patients (63.14%).-Patients with ACVA registered in the period 2015: HS 45 patients, HA 904 patients.-ACVA 2015 patients with Atrial Fibrillation (AF): CS 3 patientns, AS 163 patients.-ACVA 2015 patients with AF and anticoagulants: CS 3 patients (100%), AS 131 patients (80.37%).
Conclusions: The analysis of the records of care process indicators for patients with ACVA makes us aware of the importance of patient control. Registration allows us to evidence improvements in the care process. To make a good registry of the controls, to adapt the interventions with the patient, adapting them to each case. After our analysis we say that we must improve the uptake of patients with ACVA and the quality of the records of the care process.

P-383
Exacerbated chronic heart failure at moment of discharge

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Introduction: Evidence-based clinical practice guidelines for treatment of CHF (chronic heart failure) are available worldwide, but its application is not always transverse to all patients. This has repercussions on patients and health care systems [1].
Methods: Retrospective study of the total admissions at an Internal Medicine Department of a Portuguese hospital, with the main diagnosis of CHF exacerbated by infratherapeutic treatment or natural evolution of disease. Data was obtained through SClinico system and processed by SPSS 24.0® software. Were excluded patients who died during hospitalization. The aim was to evaluate the repercussions on 1-year rehospitalization and mortality, of long-term survival modifying pharmacologic therapy and control therapy of congestive symptoms recommended by the European Society of Cardiology (ESC) guidelines.
Results: Total of 176 hospitalizations with mean duration of 9.22±9.5 days. 58.7% were female, with a mean age of 77.4±11 years. At discharge, treatment was altered in 78.2% patients, 95.5% were on diuretics, 77.1% on ACE (angiotensin-converting enzyme) inhibitors/ARB (angiotensin receptor blocker), 73.7% on beta-blockers and 57.5% on both. 1-year rehospitalization rate was 44.1% and mortality rate 16.8%. Therapeutic adjustment in these patients at discharge was associated with fewer 1-year rehospitalizations (OR=0.31, 95% CI: 0.14–0.64, p=0.01), but without relation to mortality. Use of ACE inhibitors/ARB, beta-blockers and both at discharge was associated with lower 1-year mortality, respectively: OR=0.36, 95% CI: 0.16–0.84, $p<0.05$; OR=0.11, 95% CI: 0.05–0.26, $p<0.01$; OR=0.10, 95% CI: 0.04–0.29, $p<0.01$. The same did not occur with diuretics.
Conclusions: When the cause of exacerbation is infratherapeutic treatment or natural evolution of the disease, adjustment of the baseline medication at discharge appears to be beneficial in maintaining patient's clinical stability. Recommended survival modifying therapy should be ensured whenever possible in CHF patients.
References:
[1] A.P. Maggioni et al. Are hospitalized or ambulatory patients with heart failure treated in accordance with European Society of Cardiology guidelines? Evidence from12 440 patients of the ESC Heart Failure Long-Term Registry. European Journal of Heart Failure (2013) 15, 1173–1184

P-384
Factors that predict outcome of intensive care treatment in very elderly patients

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Introduction: The aging of the population is a critical worldwide trend, with major consequences on health system. The aim of this study was to evaluate clinical characteristics and factors associated with mortality in very elderly subjects admitted to an ICU.
Methods: Retrospective analysis of patients aged 80 years or more admitted to a portuguese ICU from 2012 to 2016.
Results: In this period 3473 patients were admitted to the UCI, of which 732 (21.1%) were very elderly. Global ICU mortality rate was 13%. Among the very elderly: 58.9% were men, mean age 85 years, mean length of stay 11.8 days, mean APACHE II 21, mean SAPS II 50 and mortality rate 34.7%. Regarding the cause of admission: 35.3% had respiratory disfunction, 17.2% digestive disease and 16.9% septic shock. Trauma patients had a longer length of stay (19 vs 11 days, $p<0.001$). Patients with septic shock were younger (84.2 vs 85.2 years, $p<0.05$), had higher values of APACHE II (23 vs 20, $p<0.001$) and SAPS II (55 vs 50, $p<0.05$) and a higher mortality rate (43.6% vs 33.0%, $p<0.05$). Advanced age was not associated with increased mortality.
Conclusions: The very elderly admitted to the ICU had a higher mortality rate compared with subjects of other ages. However, advanced age was not associated with increased mortality. Therefore, ICU admission or treatment for very elderly patients must be carefully considered. It is not appropriate to refuse ICU admission or restrict treatment to patients simply because they are aged 80 or older.

P-385
Familial diseases are also expressed in elder age. Case report

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A 92-year-old male with sudden beginning fluid and solid dysphagia. History: vascular parkinsonism, mixed dementia and a brother with Myasthenia Gravis (MG); Barthel index 72/100; he lives with his family. Systemic examination: flaccid dysarthria and abundant secretions. During hospitalization: two aspirative pneumonias and, facing the impossibility of using mouth, a feeding tube was placed until percutaneous endoscopic gastrostomy placement. Both laryngoscopy and gastroscopy discard mechanics dysphagia and a cranial CT didn't show acute cerebrovascular pathology. Then, in order to his brother's diagnostic, we requested tests directed to MG diagnostic: high levels of AChR and a thoracic CT without thymoma were obtained. It wasn't possible to perform an electromyogram and the jitter wasn't valuable. Finally, with our diagnostic "Familiar late onset AChR positive non tymomathous Myasthenia Gravis" piridostigmine was inicialised with positive results. Late onset MG is influenced by immune system's aging. Although it's underdiagnosed, it's more and more frequent and it prevails in men [1,2]. It has got more severe symptoms; and ocular and bulbar forms prevail [2]. Myastenic crisis and seronegative and seropositive patients percentages are similar to early onset MG [2,3]. Thymoma is not usually present [4]. Cholinesterase inhibitors keep on being first line on treatment. Piridogtismine, prednisone, plasmapheresis and intravenous antibody are good options [2], being the last one first line in myastenic crisis. Thymectomy in non-thymomatous MG has not shown benefits [2,5]. Remissions are maintained around 90% [2]. In familial forms, the most frequent relationship is between brothers. Many intra-family variability clinical and treatments response were observed [6].

P-386
Feasibility of a hospital at home setup for older patients with an acute medical illness: recruitment, patient acceptability, healthcare professionals' experiences, and economic evaluation

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Background: The older population is increasing with an expected increase in hospital admissions and associated cost. Out-of-hospital-treatment in the form of a hospital at home (HH) is a potential alternative, but the evidence is limited. This study aimed to test feasibility of performing a full trial of HH in acutely ill older patients.
Methods: We conducted a feasibility study in acutely ill patients ≥65 years admitted to the Emergency Department. Patients were included based on five main criteria: general eligibility, medical status, treatment requirement, cognition, and willingness to participate. Patients were transferred home within 36 hours with subsequent daily visits from healthcare professionals. Telemedicine technologies were used to increase the safety of the patients.
Results: Of 601 patients screened (median age=80 years, 56% female) only 7 (1%) were eligible and willing to participate. Main reasons for not participating were poor status of health and scepticism towards the home admission. Patients admitted at home felt safe and found several positive aspects. Health-care professionals found that the HH intervention gave the opportunity to create a patient-centred treatment. The intervention was not successfully integrated because of the few cases resulting in unfamiliarity with the setup. Economic evaluation found that HH had no economic advantages over usual in-hospital admission.
Conclusion: HH for older acute medical patients was not feasible in the design that we tested. The severity and complexity of patients, together with the existing competences of the municipality health-care staff, does not justify proceeding to a large randomised controlled trial with this set up.

P-387
Frail and Older Person Advice and Liaison Service (FOPALS), improving care for the frail and elderly people at acute hospitals

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Introduction: With an increasing aging population, more elderly and frail patients presents to hospital with highly complex health and social needs. FOPALS (The Frail and Older Peoples Advice and Liaison Service) was established at Queen's Hospital in 2013 to address the local population's needs.
Methods: FOPALS consists of a team of geriatric consultants and specialist nurses. They provide advice and assessments for elderly and frail patients seen in the community as well as the Emergency department, 7-day a week, allowing early geriatric input. FOPALS use a local BHRUT Frailty score to objectively identify suitable candidates to be reviewed. Patients over 75 years of age and score >3 points from the BHRUT Frailty score*, will automatically be seen by FOPALS.
Results: Data was collected retrospectively from January 2015 to December 2016. A total of 9532 patients were seen by FOPALS during the study period. 74% of the patients fulfilled the FOPALS criteria. Over 1/3 of patients (34.6%) seen by FOPAL was discharged the same day. The average length of stay (LoS) for all patients seen by FOPAL reduced by half (6.65 days versus 11.25 days prior established FOPAL service). The 30-day re-admission rate also fell by 13% (from 33% down to 20.2%) with a 1-year mortality rate of 7.66%.
Conclusion: Since the introduction of the FOPALS service at Queen's Hospital, the unit has not only witness a significant reduction in unnecessary hospital admission but also a drastic reduction in the LoS for the elderly and frail patients.
*BHRUT Frailty Score:
1. Presence of 1 or more Geriatric Syndromes: 2 points
   a. Falls
   b. Reduced mobility from baseline
   c. Confusion/Dementia OR 4-point-AMT <4
   d. Incontinence
   e. Significant comorbidities (>3) AND evidence of polypharmacy
   f. End of Life Care
2. Require assistance with ADLs: 1 point
3. In-patient stay within the last 6 months: 1 point
4. Significant sensory impairment: 1 point
5. Malnutrition/low BMI: 1 point

Exclusion Criteria:
- Non-medical patients
- Acute stroke, GI bleeds and MI
- Patients requiring HDU/ITU
- Oncology emergencies

P-388
Frailty in hospital: a survey of UK clinicians

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Introduction: Despite numerous national campaigns, frailty remains under-recognised in UK hospitals. We performed the first ever national survey of hospital clinicians designed to identify barriers to the identification and best practice management of frailty.
Methods: Electronic and paper based surveys were distributed to hospital-based clinicians across the UK. As well as statement-based agree/disagree/not sure questions across five domains (personal understanding of frailty, identification of frailty, assessments for frailty, management of frailty and education), this survey also included free text comment space to allow broader qualitative evaluation.
Results: 402 clinicians were surveyed across 24 specialties and 26 hospital sites. Consultants made up 54% of responders, specialty trainees 19% and junior doctors 24%. Although the majority were familiar with the term frailty, personal understanding was variable, especially amongst junior doctors. 74% of responders agreed frailty assessments should be undertaken for all older people admitted to hospital, yet only 36% felt this was currently feasible. Only 24% of responders reported they used validated assessment tools to identify frailty. Free text responses highlighted scepticism towards the clinical validity and utility of frailty as a clinical syndrome, the perceived value of so-called "end of the bed" assessments, and issues surrounding service capacity.
Conclusions: Results highlight multiple areas for improvement, and raise some interesting questions about the perceived value of frailty assessments in the acute setting. We recommend a particular focus on better training of staff, the promotion of validated frailty assessment tools, and investment in front line services for older people presenting to hospital.

P-389
Functional decline associated with hospitalization in an acute geriatric ward

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Introduction: Objective is to describe functional decline associated with hospitalization in an acute geriatric ward and to evaluate related risk factors.
Methods: Descriptive, longitudinal study. 1317 patients admitted to the acute geriatric ward at Cruz Roja Hospital in Madrid, during 2009. Functional decline associated with hospitalization was defined as 5 or more points loss between discharge and pre-admission Barthel Index (BI). Exclusion criteria (N 441) were death, data loss, pre-admission BI less than 5 points. Bivariate analysis was performed for age, sex, lenght of stay, admission albumin, creatinine, hemoglobin, Charlson index, previous mental Cruz Roja score, previous and admission BI, living in nursing home, causes of admission (ictus, cardiac failure, neumonia, urinary tract infection, chronic obstructive pulmonary disease). Significative variables ($p<0.05$) were studied with multiple logistic regression analysis.
Results: 46.2% of patients suffered functional decline associated with hospitalization, with mean age 87 years (SD 6.4), 67.9% women. Significative association resulted with age, female sex, living in nursing home, lenght of stay, admission BI, ictus, chronic obstructive pulmonary disease, admission albumin. In multivariate analysis age (OR 1.02, CI 95%: 1.00–1.05, $p<0.05$), lenght of stay (OR 1.08, CI 95%: 1.05–1.1, $p<0.01$), admission BI (OR 0.98, CI 95%: 0.98–0-99, $p<0.01$), and ictus as cause of admission (OR 7, CI 95%: 3.27–14.96, $p<0.01$) were associated with functional decline during the hospitalization.
Conclusions: Older patients, admitted for ictus, with lower admission BI and longer lenght of stay have an higher risk of functional decline associated with the hospitalization

P-390
General practitioners' point of view and involvement in the admission of their elderly patients in intensive care unit

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Context: The population aged more than 60 years has tripled during the last 50 years and will triple again before 2050. The intensive care units (ICU) are affected by this demographic change, with 9 to 18% of their patients aged 80 years and more. Nevertheless, clear ICU admission guidelines as well as data considering general practitioner (GP) implication in ICU admission of their patients are still lacking. We aimed to evaluate the GP' point of view, and their involvement in the admission of their geriatric patients in ICU.
Material and methods: Retrospective study carried out in La Pitié-Salpêtrière hospital. All patients >75 years admitted in the geriatric ward after an ICU stay between November 2014 and May 2015 were included. Each attending physicians of patients were called between July and December 2015 to answer a survey including an individual clinical vignette about their patients or clinical situations of ICU admission.
Results: Twenty-five patients were included (age 84±5 years; CIRS52 score 12 [2–21].). Main diagnoses for ICU admission were acute respiratory failure (40%) and shock (36%). Twenty-two GPs answered the survey (medical experience 30 [25–30] years),. None was contacted at the time of their patient's admission in ICU, whereas 86% (n=19) would have liked to. Moreover, GPs knew their patient's advance directives in 28% of case.
Conclusion: The GPs are rarely associated with ICU admission or care of their elderly patients. Since GPs have crucial information about patients wishes, they should be more involved in ICU management, for example by creating advanced care plans based on their personal advanced directives.

P-391
Geriatric assessment at the Acute Medical Unit: Improving the outcome

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Background: Elderly patients at the Acute Medical Unit (AMU) at our hospital, count for 53% of all bed-days. Elderly patients are often characterized by complex health related problems, functional loss and atypical symptoms. Due to demographic changes these numbers are expected to rise. The aim of this study was to describe clinical characteristics of these patients and to investigate the effectiveness of an acute geriatric assessment conducted by a Geriatric Acute Team (GATE).
Methods: All patients >65 years admitted to the AMU, between March and June 2016, were screened for eligibility. Exclusion criteria were medical unstable conditions. Patients randomized to the case group, received an acute geriatric assessment and follow-up by a senior consultant in geriatric medicine, whereas, control patients received treatment by usual standard. Data were retrieved from medical journals.

Results: We randomized 72 and 96 patients to usual treatment and GATE, respectively. Average age was 81 years, triage level at admission was low and first measure of Early Warning Score was on average 2 (0–8).17% of the patients were delirious at inclusion, they used on average 7.7 pharmaceuticals and 68% had >3 simultaneous chronic diseases. Compared to usual treatment, assessment by GATE gave shorter hospitalization times at the AMU (p=0.03), fewer doctors attending the single patient (p=0.02) and fever 30-day readmissions (p=0.05).
Conclusion: Although elderly patients are less clinical affected by their acute disease at admission, they have a high grade of multimorbidity, polypharmacy and significant delirium rates. Hence, they benefit from an acute geriatric assessment.

P-392
Geriatric assessment may reduce re-visits in the emergency department in older patients with positive identification of senior at risk (ISAR) screening

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Introduction: The "Identification of Seniors at Risk" (ISAR) screening is a tool to identify older patients at risk for adverse outcomes. We investigated whether older patients with a positive ISAR screening have an increased risk for re-visits and health-service costs when admitted to the emergency department (ED).
Methods: In a pilot study, we enrolled 96 patients aged ≥70 yrs who received an ISAR screening in the ED. We compared the rate of ED re-visits and in-hospital costs between ISAR positive (≥2 pts) and ISAR negative (<2 pts) patients. A geriatric physician performed a single geriatric consultation (GC) during the stay in the ED to assess older patient's needs.
Results: Fifty patients (52%) were ISAR positive and showed an increased risk for ED re-visits (RR 6.5, 95%-CI 2.1–20.1, p=0.001). In 29 patients, a single GC was performed. In ISAR positive patients who received a single GC, the risk for ED re-visits decreased and was no more significant (RR 2.2, 95%-CI 0.4–13.9, p=0.38). ISAR positive patients with GC did not have higher in-hospital costs than ISAR negative patients without GC (p=0.85).
Conclusion: Older ISAR positive patients have an increased risk for ED re-visits. A single GC in the ED may reduce ED re-visits. Regardless of GCs in the ED, in-hospital costs were not increased in ISAR positive patients. Based on these findings, we are establishing a comprehensive outpatient geriatric assessment program to identify relevant risk factors for ED re-visits and to recommend preventive strategies in older patients.

P-393
Geriatric Assessment Team in Emergency Department. Resources management strategies

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Introduction: An evaluation by the Geriatric Assessment Team in Emergency Department can avoid admission of fragile patients in Acute Care Hospital (ACH). In our area, derivations of geriatric patients to Emergency Department are very frequent. We contemplate the implantation of an assessment team in the emergency department for specific attention, resources management and to avoid an inappropriate admission in ACH.
Objective: To analyse the impact of the establishment of this measure.
Patients and method: Observational retrospectively study with historical cohort comparing the number of hospitalization avoided during the first trimester of 2017 in relation to the same period of the previous year.
Results: The number of admissions requested during the first quarter of 2017 was 580, 176 of these were cancelled in relation to the same period of 2016 where 491 admissions were requested and 83 were rejected, what represent the 16.9% of all admissions requested during the first quarter of 2016 and 30.3% of the requests made during the same period of 2017.
Conclusion: 1. During the first quarter of 2017 were relocated out of ACH 47.1% more patients than during the same period of 2016; 2. We cannot reduce the number of admissions in ACH due to increase of the total number of requests; 3. It was possible to maintain the same number of admissions in ACH despite the increase in the number of requests.

P-394
HFrEF, HFmrEF and HFpEF: Which is the treatment of choice at discharge? Real world data from the ATHENA registry

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Introduction: Heart failure is a highly prevalent condition in elderly. Prognosis has improved in HFrEF due to the availability of evidence based treatments. Currently, no treatments have proven efficacy in HFpEF patients and also in HFmrEF, new category of HF, introduced by the ESC.
Methods: Evaluate treatments at discharge in real world setting of elderly patients after AHF in three different groups: HFpEF, HFrEF, HFmrEF. Data derived from ATHENA retrospective observational study which included elderly patients admitted with diagnosis of AHF to University hospital in the period 12.01.2014–12.01.2015.
Results: 246 patients were enrolled: 19.5% HFmrEF, 30.5% HFrEF and 50.0% HFpEF. Mean age was respectively 83.8, 84.5, 79.9 years, p<0.001. BBs and MRAs were only two classes of drugs that had a statistically different prescription rate across three HF groups: patients with HFmrEF received BBs in similar percentage to patients with HFrEF. MRAs prescription rate in HFmrEF was intermediate compared to the other two groups. Furthermore, the average number of drugs taken by patients at the time of discharge was 11.8 with no differences across the groups.
Conclusion: In the absence of evidences from randomised clinical trials, patients with HFmrEF are treated similarly to those with HFrEF. Also, a high percentage of patients with HFpEF receive treatments that only have been demonstrated to improve prognosis in HFrEF patients. Evidences from randomised clinical trials are needed to appropriately treat HFmrEF patients.

P-395
Identifying and managing older people with "frailty" in the Acute Medical Unit in a busy district general hospital in an effective and safe manner

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Introduction: People aged 75+ are at high risk of hospital admission. The first 72 hours are key to accurately assess and manage them. There is growing evidence suggesting that "hospital at home" for selected patients offers advantages, lowering mortality and reducing functional decline. We created the multidisciplinary Acute Frail Elderly Team (AFET) to deliver the Comprehensive Geriatric Assessment within the AMU for the elderly. To identify suitable patients we used Improvement Methodology and developed a local WMUH-Clinical Frailty Score (CFS) based on Geriatric Giants and dependency. We used Rockwood-CFS concordance for comparison and scoring.
Methods: Identified patients are assessed/managed by AFET, with daily MDT meetings discussing each case, writing personalised care plans in our booklet for each patient and handing-over to AMU. AFET has strong links with community professionals and refers patients to these services facilitating safe, fast and effective discharges. To cover these, the Rapid Access Clinic for the Elderly (RACE) and outreach Richmond's Senior Health Clinic were developed. AFET outcomes are compared with other AMU patients and "usual care" patients transferred to wards using key metrics.
Results and conclusions: WMUH-CFS identifies a distinct and older cohort of patients with "Frailty"; – AFET majority of our patients are 85+, female preponderance and higher CFS with age; – AFET improves early discharge home of these patients minimising institutionalisation, falls, confusion and nosocomial infections, reduces readmissions and mortality in this cohort compared to usual care.
References:

[1] Rockwood et al. A Global Clinical Measure of fitness and frailty in elderly people. CMAJ 2005;173: 489–495/Canadian Study on Health & Aging. Reviewed 2008.

P-396
Impact of an In-reach programme & Emergency Care Bundle on delirium in patients with idiopathic Parkinson's disease

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Introduction: Previous analysis of unplanned admissions in patients with idiopathic Parkinson's disease (iPD) to our hospital in 2014, identified a high prevalence of delirium. The aim of this study was to determine whether the introduction of a reliable, structured assessment protocol would improve outcomes in iPD patients with delirium.
Methods: A daily, Geriatrician-led in-reach visit to the Emergency Assessment Unit of a University teaching hospital was commenced. This incorporated an Emergency Care Bundle to prevent and address a number of key elements of care, including delirium, in patient with iPD. The project was deployed from August 2015. After a 12-month period, data was collated retrospectively and analysed. This was compared with the 2014 cohort.
Results: 90 patients (male 58.9%, mean age 77.3 years) accounted for 134 admissions. Mean age was similar between the 2014 and intervention cohorts with delirium, although the incidence of known dementia higher in the intervention group (30% vs 42.9%). 86/134 (64.2%) admissions were seen by the in-reach team. There was a rise in detection of delirium (22.1% to 29.1%). The incidence of delirium developing after admission remained unchanged (8.1% vs 8.2%). The mortality rate in those patients with delirium at any point in their admission fell from 10/41 (24.4%) to 7/50 (14%), with no change in mortality in the non-delirious groups (1.1% vs 2.4%).
Conclusions: Introduction of this simple, cost-effective intervention improved delirium identification and management in patients with iPD, and could be adapted for use across a variety of other healthcare settings.

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Impact of anesthesia drugs on postoperative cardiovascular events after hip fracture surgery in elderly patients

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Introduction: Postoperative cardiovascular events (PCE) are frequent and strongly associated to hip fracture mortality. We aim to compare patient with or without PCE with regard to drugs they received during anesthesia in elderly patients with hip fracture.
Methods: Between 2009 and 2016, all patients (>70 years) admitted after hip fracture surgery into a dedicated unit of peri-operative geriatric (UPOG) care were included. The primary end point was drugs associated with PCE occurrence.
Results: 559 patients (age 86±6 years, CIRS 9 [6–12], 5 [3–6]) were included. In postoperative time, 145 patients (26%) presented ≥1 PCE. Patients with PCE were older (87±6 vs 86±6; p=0.02), with more comorbid conditions (CIRS 10 [7–13] vs 8 [6–11]; p=0.003) notably cardiovascular conditions (coronary artery disease 32% vs 14%; p<0.001, chronic cardiac failure 37% vs 11%; p<0.001). Remifentanyl, etomidate and transfusion were more frequently used during anesthesia in patients with PCE (10% vs 5% (p=0.01), 37% vs 25% (p=0.006) and 33% vs 23% (p=0.01) respectively), and remained associated with PCE in a multivariate logistic regression model (respectively OR=2.43 [1.13–5.17], p=0.02; OR=1.67 [1.06–2.61], p=0.02; OR=1.70 [1.12–2.61], p=0.01) whereas age and comorbid conditions were not.
Conclusion: Some anesthesia drugs are associated with the occurrence of PCE in elderly patients admitted in UPOG after hip fracture surgery. All drugs used during hospital care pathway should be considered to analyze potentially drug related-outcomes. Geriatricians and anesthesiologists will have to work together to determine optimized drug protocols, according to outcomes.

P-398
Intersectorial Clinical Unit (ICU) – A cooperative effort: Municipality and hospital

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Introduction: ICU is a joint hospital unit for fast track diagnosis and treatment of citizens above 64 years in the local municipality. It started 2013 and is staffed with nurses from Public Social Healthcare and hospital physician. The aim: to avoid many hospital admissions of elderly.

Methods: During the period June 2014–January 2016 patients in ICU were registered – inter alia – age, sex, blood samples, cultures, X-ray/CT-/MR-scan/ECG, endoscopy, diagnoses and outcome (hospitalization/ambulatory/home).
A follow up was made of readmissions to hospital or to ICU (with diagnosis) up to 6 months.
Results: Of 1001 patients visiting ICU 34% were admitted to hospital while 66% were discharged (51% were ended without further plans and 15% were sent to ambulatory follow up).
Within 30 days 18% of all the patients were readmitted to hospital or ICU. A considerable part of these required repeated transfusions due to cancer and other causes. Most frequent diagnoses were respiratory, cardiovascular, haematological and endocrine – mainly diabetics.
Conclusions: The combination of Public Municipal Health Care and hospital facilities appears to be a very efficient way to treat elderly patients. Rapid investigation and treatment is combined with optimizing the home situation or to place the patient temporary in a rehabilitation facility. These combined measures prevent deterioration of the patients' health condition.

P-399
Involvement of a geriatrician at a Dutch emergency department reduces length of stay for elderly

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Introduction: The amount of older patients attending the emergency department (ED) is increasing and contributing to crowding at the ED. Geriatrician involvement at the ED in relation to ED length of stay (LOS) in the 70+population was examined.
Methods: All patients ≥70 years who visited the ED of an university hospital in 2014 were included. A random selection of 2000 patients was made. Patient and visit related data were collected retrospectively by examining all 2000 medical files. Cases were divided for logistic regression analyses in groups divided by median and by quartiles of LOS.
Results: The 2000 patients (mean age 78.1years, SD6.1) represented 42% of the 70+ population that visited the ED in 2014. The median LOS was 216 minutes (mean 230, SD115.5). Independent protective factors for LOS were geriatrician involvement (OR 0.4, 95% CI: 0.2–0.6), surgical diagnosis (OR0.5, 95% CI: 0.3–0.9), multi-trauma patient (OR 0.2, 95% CI: 0.5–0.7) or resuscitation (OR0.01, 95% CI: 0.01–0.4). In contrast, we found that amount of diagnostics (OR1.6, 95% CI: 1.4–1.7), consultations (OR2.3, 95% CI: 1.9–2.7), lower urgency category (U3-U4;OR 7.6, 95% CI: 3.5–16.7), specialisms surgery (OR3.7, 95% CI: 2.4–5.7) and internal medicine (OR2.7, 95% CI: 1.0–3.8), hospital admission (OR1.4, 95% CI: 1.1–1.8) and afternoon arrival (OR1.4, 95% CI: 1.1–1.8) were independently associated with prolonged LOS.
Conclusions: Involvement of a geriatrician at the ED reduces LOS for elderly. The amount of diagnostics and consultations, lower urgency category, the specialisms surgery and internal medicine, hospital admission and arrival in the afternoon are independent predictors for prolonged LOS.

P-400
Is early geriatric follow-up within 24 hours after discharge able to reduce functional decline?

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Objectives: Functional decline is observed in almost two thirds of elderly on admission to an emergency department. After discharge there is elevated risk of further reduction in physical function. The aim is to examine whether early geriatric follow-up within 24 hours after discharge can reduce functional decline compared to those receiving standard geriatric care after discharge by home dwellers.
Methods: Community-dwelling 75+ years old adults were consecutively enrolled on admission to the Emergency Department where the patient's physical functional capacity was assessed. The patients were followed-up eight weeks after discharge with the same assessment. Outcome: Change in functional capacity as measured during hospitalization, based on a retrospective assessment of physical functioning 14 days before current illness evaluated by Functional Recovery Score (FRS) and again 8 weeks after discharge also by FRS.
Results: In total 153 patients were examined at the emergency department and followed-up eight weeks after discharge. Mean age was 86.2 years (±5.5) (range 75–101). Fifty nine percent were women. Using logistic regression analysis there was no significant difference in the two groups of having a functional decline measured eight weeks after discharge by FRS when adjusted for co-morbidity, dementia, previous injurious falls, and actual fall (Coefficient = −7.55 [95% CI: −16.3; 1.15]), p=0.09.
Conclusion: Early geriatric follow-up within 24 hours after discharge at home-dwelling elderly medicine patients can not reduce the risk of further functional decline compared to those receiving standard geriatric care after discharge.

P-401
Late-onset IgA vasculitis, clinical characteristics and outcomes

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Introduction: Henoch—Schönlein purpura (HSP) is an acute systemic micro vascularitis that is common in children while it is very rare in adults, often presenting with signs of an acute abdomen. This disease is difficult to diagnose in adults and seems to differ from that in children by the incidence and severity of clinical sign. The aim of this study was to determine the clinical features and outcomes of IgA vasculitis in elderly (>65 years).
Methods: All consecutive adult patients who were diagnosed with IgA vasculitis between Mai 2005 and January 2015, in the Internal Medicine department in Monastir university Hospital, were reviewed retrospectively.
Results: In total, 30 adult patients were diagnosed with IgA vasculitis, of whom 6 (20%) had late-onset disease. The mean age was 71.3 years (65–87). Clinically, the gastrointestinal symptoms were the most frequent (66,6%), type of acute pancreatitis and a leucocytoclastic digestive vasculitis. The articular and renal involvement was mentioned in 50% of patients, leading in two cases to a chronic renal insufficiency. The treatment was based on parenteral corticoids, prescribed in two cases. The evolution was good in 50% of patients. One patient was died by a nosocomial infectious pneumonia.
Conclusions: Patients with late-onset IgA vasculitis in elderly exhibit distinct clinical features characterized by greater renal involvement and worse renal outcomes. Thus, watchful follow-up might be needed for adult IgA vasculitis patients, in particular those with late-onset disease.

P-402
Long term evaluation of quality of life in elderly breast cancer

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Introduction: Cancer mainly concern elderly people, particularly frail population. Progresses in oncological management have re-

sulted in a decrease in overall mortality and an improvement in the survival rate of patients. But the benefits in terms of quality of life are discussed.
Objective: To analyze the impact of cancer and its treatments on the quality of life of elderly women with breast cancer and their experience at a distance from initial management.
Methods: Quantitative mono-centric, descriptive, retrospective cohort study and qualitative study in the oncology department of the Montceau-les-Mines hospital between 30 June and 09 August 2016. The inclusion criteria were women over 65 years of age with breast cancer who had been followed for at least 1 year. The EORTC quality of life questionnaire was submitted to patients, as well as a measure of the ADL Katz and Charlson scores. Various medical variables (date of diagnosis, tumor extension, type of treatment and side effects) and socio-demographic variables (age, home care, place and lifestyle) were also taken into account. A descriptive analysis was first performed, followed by univariate analysis in search of significant associations between the quality of life and the various variables measured, followed by a multivariate analysis. For the qualitative study, semi-directive interviews were carried out, recorded and completely transcribed. The verbatims were then analyzed by software of textual analysis, allowing to show the emergent ideas and to prioritize them.
Results: 30 women were included in the study (mean age 81.3±4.9 years). Overall self-assessed quality of life correlated negatively with comorbidities (r=−0.351; p=0.0571) and number of hours of home help (R=−0.614; p=0.0002). Quality of life score was better in patients with T1 (68.7±16.8) or T4 (75±8.3) than in patients with T2 (53.7±19.6) or T3 (55.6±9.6) states. Peripheral lymph node invasion appeared to be associated with a better quality of life (69.3±12.4 vs 57.0±21.0, p=0.0586). No correlation was found between age nor treatments with quality of life. Patients with neurological side effects reported poorer quality of life (50.0±18.0 vs 67.7±15.9, p=0.0185). Multivariate analysis revealed two major axes: a first "energy/autonomy" axis where the variables of quality of life, emotional functions, executive functions and social activities were opposed to fatigue; a second axis "physical integrity" where the variable of the body image is opposed to the mammary and brachial symptoms. In the qualitative study, the most commonly reported side effect was alopecia (n=12; 40%). Alopecia (n=4; 13.3%) followed by surgery (n=3; 10%) were the most significant features of the history of the disease. Relativism was the most commonly occurring component of the disease (n=12; 40%). Some patients reported a lack of psychological support (n=2; 6.7%), while others reported overly aggressive therapies (n=2; 6.7%). The most important elements of their quality of life were the ability to perform household tasks (n=13, 43.3%), ability to walk or go out (n=12, 40%) and the presence of the entourage (n=10; 33.3%). Walking (n=13; 43.3%) and household tasks (n=13; 43.3%) were the mostly impacts by cancer management. Qualitative study showed that quality of life is possible with a positive evaluation despite a greater locoregional tumor evolution in patients who survived a potentially fatal situation. The nature of treatments does not seem to have a significant long-term impact on quality of life, but the occurrence of chemo-induced neuropathies is significantly related to a lower quality of life. Patients emphasize alopecia and surgery in the experience of their illness, sometimes with insufficient psychological support.
Conclusions: These results lead us to reevaluate our practices in order to guarantee a better quality of life to our patients by being more attentive to their expectations and by strengthening our collaborations with the other medical, surgical and paramedical actors during the management. In particular, it is advisable to care the occurrence of chemo-induced neuropathies in order to maintain good autonomy to ensure a better quality of life

P-403
Long term prognosis of upper gastrointestinal bleeding in the elderly population

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Introduction: Although upper gastrointestinal bleeding (UGIB) represents a frequent medical situation with a high in-hospital mortality rate in aged patients, data concerning long-term prognosis are lacking. We aimed to described evolution and recovery of aged patients with UGIB to provide original data essential to improve medical care.
Material and methods: Prospective observational study. All patients with gastrointestinal bleeding and upper endoscopy were included between June 2015 and may 2016. Comorbidities (CIRS score), autonomy (ADL and IADL) and frailty (Rockwood) were prospectively collected. Primary objective was the 6-month mortality. Secondary objective was 6 month functional recovery.
Results: Sixty-six patients were included (age 83±4 years, 55% women, CIRS score 12 [8–15], ADL and IADL 5.5 [4–6] and 2 [1–4] respectively, Rockwood 5 [3–6]). Main clinical presentation and etiology were respectively represented by melena (n=48, 73%) and gastroduodenal ulcers (n=44, 67%). Sixty-two percent of patients (n=41) presented at least one complication during hospitalization, and 30 day mortality rate was 15% (n=10). The 6 month mortality was 42%, with 89% of home return in survivors. Considering 6-month functional recovery, there was no difference between pre-hospitalization and 6-months ADL, IADL and Rockwood scores (6 month values respectively 4.5 [3–6] (p=0.09), 1 [0–3] (p=0.08), 6 [4–6] (p=0.4)).
Conclusion: Aged patients with UGIB experienced a high 6-month mortality rate, but no functional decline was observed in survivors at 6 months

P-404
Malignant lymphoma more than 80 years old cases

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Introduction: Because of aging society, the number of non-Hodgkin's lymphoma (NHL) patients were increasing. So we investigated NHL of more than 80 years.
Methods: The subjects in this study were 80 cases who were histopathologically diagnosed as malignant lymphoma and more than 80 years old, from January 2003 to December 2014. Survival curves and the median survival times were estimated by the Kaplan-Meier method and any significant differences between the two groups were evaluated by the Log rank test. The authors and coauthors have no conflict of interest to disclose.
Result: All cases were 80 cases including male 38 cases, female 42 cases, median age was 82 years. Pathological findings, Hodgkin's lymphoma 3 cases, non-Hodgkin's lymphoma (NHL) 77 cases, in NHL, diffuse large B cell lymphoma (DLBCL) 48 cases, follicular

lymphoma 6 cases, intravascular large B cell lymphoma 3 cases, peripheral T cell type 3 cases. MALT 3 cases, others 17 cases. In DLBCL (48 cases) that was most popular pathological type of about therapy, R-CHOP therapy or CHOP based therapy 34 cases, radiation therapy alone 1 case, best supportive care 8 cases, other chemotherapy 3 cases, death before therapy 1 case. About clinical outcome, complete response rate was 45.8%, median survival time (MST) was 20M, 5-year overall survival rate (5y-OSR) was 40.8%, about gender, MST were male 10M, female 86M, 5y-OSR were 27.2%, female 55.2%. There were significant difference between male and female.
Conclusions: Even if elderly patients, especially 80 years old patients, necessary to aim to cure.

P-405
Management of arterial hypertension in patients over 80 years old hospitalized in a geriatric medical unit

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Introduction: There is little evidence available regarding the optimal management of arterial hypertension (AH) in older frail adults. Benefit/risk balance should be evaluated in each opportunity, including acute hospitalization.
Objective: To investigate changes in antihypertensive treatment of geriatric patients during an acute hospitalization.
Methods: A retrospective, medical record based, study was conducted in patients ≥80 years old, hospitalized in a two months' period, for various reasons, in a Geriatric Medical Unit.
Results: We studied 119 persons (100 women), mean age 87.8±4.8 years. In 37.8% of cases there was a reason of hospitalization potentially related to AH. During the hospitalization 103 antihypertensive molecules were stopped and 38 were introduced, leading to a 27.1% reduction of the overall 240 molecules taken at admission. Ninety patients (76.5%) underwent antihypertensive medication changes. Antihypertensive drugs were reduced from 2.0 (±1.1) at admission to 1.5 (±1.1) at discharge ($p<0.001$), reflecting mostly diuretics' and renin-angiotensin inhibitors' reductions. In 74.7% of cases the reasoning of medication changes was not referred in the discharge letter. Mean systolic blood pressure (SBP) was 137.2 (±29.3)mmHg at admission and 129.8 (±21.4)mmHg at discharge ($p=0.042$). The prevalence of SBP<130mmHg was 43.7% at admission and 55.5% at discharge ($p=0.05$). Among those patients, 75.0% at admission and 45.5% at discharge received >1 antihypertensive drugs. The percentage of patients with SBP>160mmHg was reduced (21.8 vs 10.1%, $p=0.016$).
Conclusion: Despite the tendency to reduce antihypertensive medication during hospitalization, SBP levels remain low at discharge. Many patients with low SBP receive combination antihypertensive therapy and could be considered as overtreated.

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Mobile Geriatric Unit: we will take care of you wherever you are

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Introduction: Emergency department and medical and surgical wards are always more confronted with the complexity of older patients.
Methods: Since September 2015 in the regional Hospital of Lugano a geriatric project is ongoing to improve the taking in charge of the elderly patients at their arrival in the emergency department and to take care of them throughout their stay in hospital by a transversal approach. At the arrival at the emergency room, the patient undergoes to modified ISAR score and if it is positive MGU (Mobile Geriatric Unit) is contacted to evaluate the patient. The geriatrics inpatient are referred to medicine and surgery department, and the geriatrician cooperate in a multidisciplinary assessment. The geriatrician also attend constantly to grand rounds in surgery for taking in charge of complex geriatric patientsThe clinical nurse specialist in geriatrics collaborates in educational training for nursing staff of various specialties to improve the total care of the elderly patients and to help the caregivers for an appropriate approach.
Results: Since September 2015, approximately 17% of patients in ED had more than 75 years, and 15% of these had a positive modified ISAR score. The 32% of these patients were hospitalized. The 30% had one of the great geriatric syndromes as reason of hospitalization. Patients with a positive ISAR in 25% had an hospital readmission, as described in medical literature, but we found a decrease in inappropriate hospitalizations.
Conclusions: A better taking charge of geriatrics inpatient and outpatient reduce inappropriate hospital re-admission

P-407
Multiple neoplasms including hematological malignancies of the more than 80 years elderly

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Introduction: Progress of therapy and supporting therapy improved a prognosis. Synchronous type patients were difficult to treat. We reviewed synchronous type of multiple neoplasms including the hematological malignancies of more than 80 years old.
Methods: In the case that hematologic malignancy was diagnosed in our hospital from 1988 to 2015, we intended for double cancer 340 cases including hematological malignancy. We reviewed 46 multiple neoplasms of synchronous type of the more than 80 years. The examination factors are kind of the hematological malignancy, treatment, gender, tactics of therapy.
Results: All cases were 46 cases, including male 31 cases, female 15 cases, number of malignancies, double 39 cases, triple 6 cases, quadple 1 case. Hematological malignancies to constitute were non-Hodgkin's lymphoma (NHL) 24 cases, multiple myeloma 3 case, myelodysplastic syndrome 8 cases, acute leukemia 4 case, chronic leukemia 2 cases, others 6 cases, about solid cancer, gastric cancer 14 cases, prostate carcinoma 7 cases, lung cancer 6 cases, colon cancer 11 cases, pancreatic cancer 3 cases, breast cancer 4 cases, others 8 cases. About therapy, chemotherapy (CTx) + Ope 29 cases, CTx only 6 case, CTx + palliative therapy 5 cases, Ope + transufusion (TF) only 5 cases, TF only 1 case. About cause of death, 19 death cases, hematological malignancy 14 cases, solid cancer 5 cases.
Conclusions: Even if more than 80 years old synchronous multiple neoplasms, they have chance to survive.

P-408
Neuroleptic malignant syndrome giving rise to malignant hypertension in a Lewy body dementia patient

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Introduction: A 91 year old obese lady with Lewy body dementia (LBD) was on quetiapine, which dose recently upped from 25 to 50mg. She was found to be obtunded (Glasgow coma scale 9/15), flushed, warm and generally rigid, with leadpipe hypertonicity of limbs. Pyrexia of 41°C was present with rapid, shallow tachypnoea

(35 breaths/minute) and hypoxaemia (89% saturation probe), with blood pressure (BP) of 300/160 mmHg.
Method: Fundoscopy revealed flame haemorrhages, urine was clear but a burgundy colour with dipstix showing full bilirubin and blood readings, examination not yielding additional findings. It was reasoned that microangiopathic haemolysis occurred from accelerated hypertension damaging arterial endothelia, which shear erythrocytes releasing free intravascular haemoglobin, original trigger being subacute neuroleptic malignant syndrome (NMS) from the quetiapine increment, which was stopped. Aggressive forced diuresis with running intravenous (IV) saline and 6mg bumetanide aliquots to flush the kidneys undertaken; BP controlled with IV labetalol. Left on paracetamol (for fever) with 8 hourly IV fluids and bumetanide to preserve good urine output. Haemoglobinuria cleared after 2 days.
Results: Creatinine kinase and renal function remained normal, indicating that rhabdomyolysis and renal damage was averted. Fragmented erythrocytes on blood film, unconjugated hyperbilirubinaemia, high lactate dehydrogenase and low haptoglobin confirmed haemolysis. She regained full conciousness and normal tone within a couple of hours.
Conclusions: LBD renders subjects sensitive to antipsychotic adverse reactions, not least NMS. Accelerated hypertension may complicate NMS, forced diuresis is imperative to avoid renal damage and wash out any myoglobin crystals in the event of rhabdomyolysis.

P-409
Optimizing the ISAR-HP to screen efficiently for functional decline in older patients

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Introduction: The Identification of Seniors At Risk-Hospitalized Patients (ISAR-HP) has recently been included in guidelines as a frailty indicator to identify patients for comprehensive geriatric assessment. Previous studies showed that the conventional cut-off score classifies a high percentage of patients as high risk incorrectly. We aimed to optimize the predictive value of ISAR-HP by using different cut-offs in older acutely hospitalized patients.
Methods: A prospective follow-up study was performed in two Dutch hospitals. Acutely hospitalized patients aged ≥70 years were included. Demographics, illness severity parameters, geriatric measurements and the ISAR-HP scores were obtained at baseline. The primary outcome was a combined end point of functional decline or mortality during ninety day follow-up.
Results: In total 861 acutely hospitalized older patients were included, with a median age of 79 years, of whom 276 (36.1%) experienced functional decline or mortality. The conventional ISAR-HP cut-off of ≥2 assigned 432/765 patients (56.5%) as high risk, with a positive predictive value (PPV) of 0.49 (95% CI: 0.45–0.54) and a negative predictive value of 0.81 (95% CI: 0.76–0.85). Thus, 51% of those whom the ISAR-HP denoted as high risk did not experience the outcome of interest. Raising the cut-off to ≥4 assigned 205/765 patients (26.8%) as high risk, with a marginally increased PPV to 0.55 (95% CI: 0.48–0.62).
Conclusion: The ISAR-HP with the conventional cut-off of ≥2 incorrectly identifies a large group of patients at high risk for functional decline or mortality and raising the cut-off to 4 only marginally improved performance. Caution is warranted to ensure efficient screening and follow-up interventions.

P-410
Peculiarities of pneumonia in patients treated in the department of geriatrics

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Introduction: Pneumonia in the elderly often present with atypical symptoms and radiographic or laboratory tests can be uninformative.
Methods: Using an questionnaire, 83 patients were interviewed. Main factors inducing the occurrence of pneumonia and physical, laboratory, radiological data and their incidence were assessed.
Results: Patients had underlying diseases: cardiovascular 91.6%, cerebrovascular 54.2%, pulmonary 43.4%, neurological 26.5%, kidney 25.3%, chronic infections18.1%, diabetes 14.5%, oncological 12%. Within 1 month, 30.1% of patients had intravenous therapy, 10.8% - wounds treatment. Within 3 month >2days, 37.5% were hospitalized and 10.8% were nursing home residents. Prostheses were worn by 62.3%, 16.9% of them did not have teeth, caries was observed in 13%. 51.9% of subjects did not have fever, 37.8% had no leukocytosis, content of neutrophils in 10.8% was within the normal range. No inflammatory infiltration was observed in 24.4%. The right lung was penetrated with infiltration in 39%, the left one in 20.8% left, and both in 20.8%. Hydrothorax evolved in 23.4% of patients.
Conclusions: Main factors inducing the occurrence of pneumonia in older age are severe comorbidities, interventional procedures, previous hospitalization, life in nursing home, poor oral hygiene. Interpretation of clinical pneumonia data in older age can be difficult: more than half of the subjects did not have fever, a third of them – leukocytosis. A quarter of subjects did not have any infiltration lesions, which complicates the diagnosis

P-411
Peripheral venous catheter replacement – implementation of new findings (research protocol)

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Introduction: New evidence suggest routine replacement of peripheral venous catheters (PVC) should no longer be criteria. Instead, new studies have proven that clinical criteria versus routine criteria reduce the incidence of phlebitis. As such, and since implementation of previous guidelines that indicated the need of routine replacement lead to a yearly reduction of 3.5% in a neurology ward in a central hospital in Portugal, a new study answering these new findings will be developed in the same setting.
Methods: A two phase study of quantitative nature will be developed during a year period. Phase I will target understanding of potential gains of this change in criteria, through application of a checklist based on clinical data for PVC replacement and compared related with the time since placement. Phase II will target nursing team expertise through workshops in order to improve knowledge, and the introduction of the clinically-indication as routine for PVC replacement.
Results: It is expected that change in routine will improve phlebitis rates by increasing knowledge and expertise in the nursing team.
Conclusions: Guideline implementation are a challenge in macro and micro organisations. With globalisation and access to new information and findings, it is important to keep constant update to improve the standard of care with impact in the patients' quality of life.

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Persistence of direct oral anticoagulants (DOAC) treatments and determinants of their discontinuation in a geriatric population

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Introduction: European guidelines underline the necessity of introducing an anticoagulant for elderly people with atrial fibrillation (AF). However, older age of the patients remains one of the main brakes preventing the prescription of anticoagulants and the continuation of the treatment appears to be low under vitamin K antagonist (VKA). The arrival of direct oral anticoagulants (DOAC) offered a new possibility of treatment of the AF but the continuation of the treatment is poorly known. The objective of the study is to evaluate the persistence of treatment by DOAC and to analyze the determinants of their discontinuation in a population of very old patients, hospitalized in geriatric care unit, presenting a non-valvular atrial fibrillation.
Methods: Prospective study, conducted between January 2013 and January 2015. One hundred and thirty two patients benefited from the initiation of a treatment by DOAC (dabigatran or rivaroxaban). The persistence of DOAC use and the determinants of their discontinuation during 6 months of follow up were analyzed by descriptive statistics and a model of logistic regression with adjustment on the age, the sex and confusing factors.
Results: The mean age of the population was of 85.2 (SD=4.8), 70% (n=91) were women 12% (n=16) had a history of bleeding, 38% (n=51) had a history of cerebrovascular event. The mean clearance according to Cockcroft formula was 57.4 ml/min (SD=19.86) and the mean score of thromboembolic risk CHA2DS2-VASC scores was 4.17 (SD=1.32). The rate of DOAC's persistence after a 6 month-period was 66% (n=89). The main causes of DOACs discontinuation were the onset of a bleeding event in 33% (n=14), a degradation of the renal function in 19% (n=8), a galenic problem in 9% (n=4), palliative care in 7% (n=3), a stroke in 5% (n=2), fall and fracture in 5% (n=2) and an unknown cause in 19% (n=8) The main determinants of DOAC discontinuation were younger age [OR (95% CI) =0.86 (0.77–0.95), p=0.004], a history of bleeding [OR (95% CI) = 4.04 (1.09–16.3), p=0.02], a clearance of creatinine lower than 50 ml/min [OR (95% CI) = 3.57 (1.4–9.6), p=0.008] and low albumin (<30g/l) [OR (95% CI) = 2.89 (1.15–7.51), p=0.02].
Conclusion: In this population of very old patients, the continuation of the DOAC appears to be relatively low (66%). In 50% of the cases, discontinuation of treatment resulted from a bleeding event or impairment of renal function. In a third of the cases, no justified reason of treatment discontinuation was found. Specific studies in geriatrics are necessary to better estimate the benefit-risk of the DOAC in very old patients with multiple disorders.

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Prevalence in patients older than 75 years with gastrostomy placement

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Introduction: Placement of gastrostomies in patients older than 75 years is increasing. We propose a retrospective study of 5 years (2011–2016) of patients who underwent gastrostomy in the Complejo Hospitalario de Toledo, to establish the most frequent geriatric profile to which a gastrostomy is placed and its outcome.
Methods: Using the collection book of the interventional radiology service we recorded the name and petitioner's service retrospectively with sex, age, institutionalization, functional scales (Katz), cause of request for gastrostomy placement, type of nutrition, current situation (deceased or alive) and comorbidity.
Results: n=197, 43.7% are men. 50.3% live in the house, 48.7% in residence. 29.9% of the gastrostomies were placed for stroke, 1.5% for mild dementia, 14.2% for moderate dementia, 44.7% for severe dementia. 74.6% of patients were hospitalized in geriatrics, 69.5% were hypertensive, 32% were diabetic, 34% were dyslipemic, 11.17% had chronic ischemic heart disease, and 15.74% pressure ulcers. 51.8% of the patients had a KATZ G, 11.2% KATZ F and the classification was not collected in 20% of the patients. 54.8% of the patients died, of which the cause of death was not collected in 71.6%, 15.2% died from pneumonia, 3.6% from digestive causes.
Conclusions: We can conclude that the most frequent is to place gastrostomy in a woman, who lives at home, has dysphagia secondary to moderate-severe dementia, is admitted to the geriatrics department, has hypertension and KATZ G index. She is given normocaloric/normoprotein nutrition and dies, ignoring the cause of death.

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Proactive geriatric consultation for elderly orthopedic patients reduces mortality and length of stay

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Background: Traumatic injuries and osteoarthritis are leading causes for functional deterioration, morbidity and mortality in the older population. Following orthopedic interventions, older patients are susceptible to various medical complications - wound and systemic infections, VTE, delirium, pressure sores, and exacerbation of chronic medical conditions. Delayed identification and treatment of these complications may increase length of stay, morbidity and mortality and increases the risk for functional deterioration and unwanted institutionalization. Geriatricians are trained to perform early identification and treatment of these complications as well as to direct a multidimensional discharge plans. In the current study we made an adjustment to the standard care of older patients by employing a proactive geriatric consultation. Geriatricians served as an integral part of a multidisciplinary team providing care for older patients in the orthopedic division. The geriatricians conducted early post-operative evaluation and continued follow-up in selected patients.
Design: Retrospective single center cohort study.
Setting: Orthopedic division of a large tertiary academic hospital.
Methods: Retrospective data was collected for the years 2011–2015. (The intervention took place between 01.2015 and 31.12.2015). Time from operation to geriatric consultation, post-operative length of stay in the orthopedic division and perioperative mortality were compared for patients during the intervention period (n=736) and previous years (n=5786).
Results: Time from operation to geriatric consultation decreased (93 hours to 67 hours median time, P<0.01). Post-operative length of stay decreased (6.8 days to 5.9 days, P value <0.01). During intervention year mortality rate was reduced significantly (38 to 34 yearly death rate, P<0.001).
Conclusions: Integrating geriatricians into the multidisciplinary orthopedic team and applying a proactive geriatric approach led to reduced length of stay and mortality.

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Risk factors for falls in hip fracture older patients admitted to an Orthogeriatric Unit during the first 7 months

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Introduction: Hip fracture (HF) in elderly usually occurs as a complication of a fall. To prevent future falls it is important to understand the risk factors for falls (RFF) and to correct them. Our goal is to identify the most prevalent RFF in elderly assisted during the first 7 months of a new Orthogeriatric Unit.
Methods: Retrospective study of elderly admitted due to HF between June and December 2016 through hospital record analysis.
Results: 134 patients included (123 underwent comprehensive geriatric assessment, 124 underwent pharmacological assessment). Average age 83.87 years, 78.4% females. Average baseline Barthel score 80.3, average Cumulative Illness Rating Scale Geriatrics 7.45. 6.9 RFF per patient in average and the most prevalent were: fall-related drugs (FRD) use (81%, 2 FRD/patient), being female (78%), polypharmacy (5 or more drugs) (69%, 6.5 drugs/patient), limitation in activities of daily living (69%), older age (≥85 years) (53%), cognitive impairment (48%), use of mobility aids (48%), malnutrition (26%), inactivity (24%), falls history (21%), cerebrovascular disease (21%), diabetes (19%), obesity (18%), gait impairment (17%), anaemia (15%), living alone (15%) and sphincters incontinence (15%), visual impairment (14%), osteoarthrosis (14%), hyponatremia (13%), depression (12%) and osteoporosis (10%). 59% were consuming psychotropic drugs: benzodiazepines (32%), antipsychotics (19%), selective serotonin reuptake inhibitors (19%). Other FRD prescribed were: proton pump inhibitors (43%), antihypertensive drugs (33%) and diuretics (28%).
Conclusions: Prescription of FRD is a very prevalent RFF in patients admitted for HP and must be systematically assessed during the admission to prevent future falls.

P-416
Risk factors for negative outcome in elderly emergency department patients

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Introduction: The amount of older patients attending the emergency department (ED) is increasing. Execute interventions to reduce negative outcome in elderly are important. Therefore, risk factors for negative outcome were identified.
Methods: From all patients ≥70 years who visited the ED of an university hospital in 2016, 2000 patients were randomly selected. Patients and visit related information were collected retrospectively. Negative outcome was defined as: in-hospital mortality and/or ICU admission, and unplanned ED revisit within 30 days. Risk factors for negative outcome were determined by logistic regression analysis.
Results: Of the 2000 patients (mean age 78.3years, SD6.5), 222 (11.2%) had a negative outcome; 65 patients (3,3%) in-hospital mortality, 111 (5.6%) patients ICU admission and 46 (2,3%) patient who died in the hospital during or after ICU care combined. The total revisit rate within 30 days was 12.1% (n=228). The rates for discharges (12.9%;n=94) and admitted (11.6%; n=134) patients did not differ significant (p=0.39). A diagnosis in neurology (OR 4.2, 95% CI: 1.5–11.6), surgery (OR2.3, 95% CI: 1.0–5.1), pulmonology and cardiology (OR 2.9, 95% CI: 1.1–7.6) or multi-trauma (OR12.3, 95% CI: 1.2–127.1), ambulance transportation (OR3.5, 95% CI: 2.2–5.3) or trauma helicopter transportation (OR 30.8, 95% CI: 8.1–116.5) are independent factors predicting negative outcome.
Conclusions: Independent risk factors for negative outcome are diagnosis in neurology, surgery, pulmonology and cardiology or multi-trauma, next to transportation by ambulance or trauma helicopter.

P-417
Sleeping quality and sleep disturbing factors assessed by geriatric patients in single-bed or multiple-bed hospital

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Introduction: Lack of sleep during acute hospitalization has single effects such as increase in infection rate. Also, it increases blood pressure, and the risk of behavioral and psychological changes. Thereby recovery after illness extends. Our aim was to explore sleeping quality and sleep disturbing factors in older patients in single-bed compared to multiple-bed rooms.
Methods: In a cross-sectional study, we consecutively included cognitive well-functioning older patients admitted to a geriatric ward before and after the ward was moved from a multiple-bed hospital to a newly built single-bed hospital. They were acutely admitted primarily due to infection, hip fracture, or stroke. By a short-form questionnaire each patient was asked once in the morning ≥2 days of hospitalization: “Did you sleep well during the night?”, and “Did anything disturb your sleep?” If the patient had been disturbed, the causes of disturbances were registered.
Results: In total, 226 (111/115) patients were included. Mean age was 83.6 years (±8.0), and 63% were women. Overall, 69% of the patients slept well, and 46% were disturbed during night. More patients in single-bed rooms assessed their sleep as good compared to the patients in multiple-bed rooms (p=0.01). Quality of sleep and disturbances were associated (p<0.001). External disturbances e.g. noise from staff or fellow patient were fewer in single-bed (4% versus 14%) (p=0.01). Internal disturbances e.g. pain and urge to urinate were equal (15% versus 18%).
Conclusion: Older inpatients assess their sleeping quality better in single-bed than in multiple-bed rooms, and experience fewer disturbances during the night.

P-418
ST Segment Elevation Myocardial Infarction (STEMI) in the elderly over 75 years: retrospective study in a general hospital

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Introduction: Data on ST elevation myocardial infarction in patients aged over 75 years remains sporadic.
Methods: We completed a retrospective study at the Centre Hospitalier de Troyes, including all patients aged over 75 years treated by emergency physicians in pre-admissions or in emergency wards presenting with acute ST elevation myocardial infarction between January 2015 and February 2016 inclusive. We also identified a second group of subjects, aged below 75 years, with the same number of members, in order to be able to perform a cross-analysis.
Results: We retrieved details of 32 patients aged over 75 years, with a mean age of 84.56 years (75–100 years), of which 22 were women. The mean Charlson comorbidity score is estimated at 3.44 (1–8) and the mean Grace score is estimated at 216 (168–345). Reperfusion was performed by way of an angiogram in 46.75% of cases; no patient in this group was subject to thrombolysis. The mean time before performance of the initial angiogram is estimated at 5,149 minutes (or over 85 hours); approximately 21.9% of patients were treated by way of insertion of a stent. One half of angiograms were not accompanied by the insertion of stents. Mortality during hospitalization occurred in ten cases and, in total, 12 patients passed away within six months. Thirty-one patients aged below 74 years, with a mean age of 55.06 years (25–74 years) were included in a study over a shorter period, namely three months, with the majority being men (27 subjects). Angiograms were performed in 96.77% cases, whereas thrombolysis was performed in the cases of

only two patients. We did not record any mortality during hospitalization, nor at an interval of one month or three months. There are more female subjects among patients aged over 75 years and more male subjects among patients aged below 75 years ($p<0.0001$). Subjects aged over 75 years were more likely to have consulted their treating physician prior to attending the emergency ward ($p=0.002$). The Charlson score is more significant in subjects aged over 75 years ($p<0.0001$); the same applies for the Grace score ($p<0.0001$). Subjects aged over 75 years were provided with less access to angiograms than subjects aged below 75 years, and were less likely to benefit from a stent insertion ($p<0.0001$). Age$\geq$75 years increases the risk of mortality during hospitalization ($p=0.001$), at one month ($p=0.001$) and at six months ($p<0.0001$). The prognosis for ST Segment Elevation Myocardial Infarction ("STEMI") patients is bleak. Mortality at one year in patients aged over 80 years is seven times higher than for patients aged below 70 years in the ASC II register. In the GRACE register, age was highlighted as an independent factor correlated with the absence of reperfusion treatment during the acute phase, along with a history of surgical revascularization, diabetes, heart failure, and the absence of chest pain. In the PLATO ELDERLY study, angiograms were deployed in 56.6% of cases, with angioplasty a featuring in 73.2%. A recent study on sudden cardiac arrest in elderly patients based on the ACOS register shows that mortality during hospitalization was recorded at a rate of 12.5% among the medical treatment group, compared to 6% among the group that benefited from an invasive treatment strategy. In the FAST-MI register, 85.3% of patients aged below 65 years were treated via angioplasty or fibrinolysis in cases of STEMI, compared to only 53.6% of subjects aged over 85. According to Kuch, angioplasty is the single predictive factor for survival at 18 months. Coronary angioplasty in subjects aged over 85 years is thus technically feasible with a satisfactory success rate and acceptable rates of morbidity and mortality, given the severity of the coronary condition and the associated comorbidity. Mortality is the criterion used in studies to judge the effectiveness of coronary angioplasty in octogenarian patients, but it is also important to assess quality of life as suggested by Shah et al, demonstrating that angioplasty performed in subjects aged over 75 suffering from STEMI is an independent predictive factor for an improvement in long-term survival, and also demonstrating that their quality of life is comparable with that of a similarly aged, non-institutionalized control population.

Conclusion: STEMI in elderly subjects remains a current topic, both in terms of therapy and prognosis.

P-419
Stroke as first manifestation of essential thrombocythemia in a nonagenarian

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Introduction: Essential thrombocythemia is a myeloproliferative disease characterized by an elevation of platelet count. On rare occasions it can cause ischemic disorders such as strokes. They can account for 0.54 to 1% of ischemic strokes. They are exceptional in the oldest-old population, in which the two major causes of ischemic strokes are embolism and atherosclerosis.

Case description: A 92-year-old woman with history of hypertension was admitted with broca's aphasia. We diagnosed her with left sylvian ischemic stroke. There was no evidence of atrial fibrillation, carotid stenosis, endocarditis, dyslipidemia or diabetes. Her platelet count had been measured over 6G/L several times in 3 years, and was each time attributed to an infectious or inflammatory event. There was no iron deficiency or chronic inflammation. She had no history of thrombosis or bleeding manifestations. The V617F mutation of JAK2 was positive. We diagnosed her with essential thrombocythemia. She was treated with a daily dose of 160 milligrams of aspirin.

Conclusion: Stroke revealing Essential thrombocythemia is rare. Even though the age of diagnosis is rarely over 70, clinicians must suspect a hematological neoplasm included in a geriatric population. Esssential thrombocythemia can easily be suspected with a simple blood count. Persisting high platelet count should alert the physician and lead to a non-invasive detection of the V617F mutation of JAK-2, especially if ischemic manifestations are reported. Indeed, the preventive treatment by combined antiplatelet and cytoreductive therapy could be proposed to allow the maintenance of functional ability and quality of life in the elderly.

P-420
Symptom recognition in acute heart failure patients

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Introduction: Heart Failure is a chronic disease that requires patients to develop appropriate self-care behaviours, and to be able to detect early symptoms and signs of disease as well. Difficulty in early detection of heart failure signs and symptoms can delay contact with healthcare providers, possibly leading to severe physiological changes and hospital admission. The aim of this study was to identify if Heart Failure patients were able to recognize symptoms of the disease, after an educational program about symptom recognition.

Methods: Through an exploratory study we analysed if Heart Failure patients, admitted to an Intensive Heart Failure Unit Care, receiving education about signs and symptoms at time of discharge, could mention them one week and one month after discharge.

Results: 28 patients were enrolled. One week after discharge patients were contacted by telephone and asked if they could mention Heart Failure symptoms. 74.1% could recognize dyspnoea, 44.4% tiredness, 29.6% weight gain, and only 14.8% mentioned ankle oedema. One month after discharge, in a clinic follow-up, 61.5% mentioned dyspnoea, 34.6% tiredness, 11.5% weight gain, and only 3.8% (one patient) referred ankle oedema.

Conclusions: These findings suggest that heart failure patients may benefit from a disease management program that facilitates earlier reconnaissance of signs and symptoms of this disease.

P-421
The consumption of benzodiazepine substances in the elderly

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Objectives: To evaluate the consumption of psychoactive substances (PAS) in elderly patients followed in outpatient psychiatry and geriatic and identify factors correlated with the dependence on benzodiazepine (BZDs) or tobacco.

Methods: We conducted a transversal study, over a period of six months, that involved 100 patients aged over 65 years. The patients answered the scale of "Fagerstrom" for the evaluation of the nicotine dependence and the cognitive scale of attachment to BZDs (ECAB).

Results: The mean age of patients was 69 years (65–82). The sex-ratio was 0,96; 82% of patients had not exceeded the level of secondary education and 72% of them were married. Thirty-five percent had a somatic co morbidity. The depressive disorder was the most common on (41%). Antipsychotics were prescribed in 56% of case, anxiolytics (BZDs) in 40% of patients. 73% of the our patients consumed regularly at least one PAS (the BZDs in 40% with a dependency ratio of 90%). 92,5% of patients consumed the BZDs for at least 2 years with an average dose 3,87 mg per day. Regarding

smoking, 34% of patients smoked regularly with an average amount of cigarettes 42,3 per day. The half of smokers had a strong or very strong nicotine addiction. No patients reported an alcohol consumption or use of illicit products.
Conclusion: In the elderly, dependence on psychoactive substances can affect daily life and be responsible of somatic, cognitive and psychiatric complications. The BZDs are the most often involved. It is therefore essential to respect their indications, contraindications and educate patients.

P-422
The course of geriatric syndromes from admission to three months post-discharge and their effect on adverse outcomes: results from the Hospital-ADL cohort study

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Introduction: Studies have addressed the prevalence of geriatric syndromes during hospitalization and showed their association with adverse outcomes. However, data on their course post-discharge and association with recovery are scarce. This study assessed the course of geriatric syndromes from admission until discharge and then monthly until three months post-discharge and their impact on functional decline, readmission, and mortality.
Methods: A multi-center cohort study, the Hospital-Associated Disability and Impact on Daily Life (Hopital-ADL) study, was conducted, including 400 acutely hospitalized patients aged ≥70 years admitted to an internal, cardiology or geriatric ward from six Dutch hospitals. Geriatric syndromes assessed included: fatigue; malnutrition; fall risk; fear of falling; shortness of breath; incontinence; pain; dizziness; depressive symptoms; cognitive impairment.
Results: 80% of patients experienced fatigue at admission, which remained present among 50% up to three months post-discharge. 40% were malnourished at admission, and still 20–30% in the first three months post-discharge. Almost 40% experienced a fall six months prior-hospitalization, and 11–12% had a fall in the first, second and third month respectively. 40% were afraid to fall at admission, 30% in the first months post-discharge. 15–35% experienced shortness of breath, incontinence, pain and dizziness during and post-hospitalization. 22% experienced depressive symptoms at admission, 11% post-discharge. 20% was cognitive impaired at admission, which decreased to 11% post-discharge. At admission and post-discharge, depressive symptoms, malnutrition, fear of falling, shortness of breath and pain were associated with functional decline, readmissions and mortality.
Conclusion: Our study underpins the importance of addressing geriatric syndromes in transitional care interventions.

P-423
The frequency of short and long term readmissions in the geriatrics ward

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Introduction: Patient readmissions increase the mortality and morbidity and also cause a heavy financial burden. The purpose of this study is to determine the frequency of readmissions in the geriatric ward and related factors.
Methods: 129 patients who have been admitted to the Geriatrics Ward of Ege University between April 2016–2017 were reviewed retrospectively. The demographical data, medical histories and the reasons of admission of the patients were obtained from the electronic files.
Results: 39 (30.2%) of the admitted patients were male whereas 90 (69.8%) of them were female. The average of age was 79.6+7.5 (65–100). The average admission period was 13.5+8.5 (2–51)(SS:0.7). 60.5% of those patients had 3 or more chronic disease. 17 patients have been readmitted within a year (13.1%). Despite no significant relation has been found between the frequency of readmission and the age or gender, it was seen that it is related to the coronary artery disease (fisher's p:0.029). Even if there is not any significant relation between the number of diseases and the frequency of readmission, while performing Cox regression analysis, it was seen that when the number of diseases increase, the possibility of readmission increases 5.9 times and the reason of obtaining a confidence interval of 1–34.4 was correlated with having limited number of patients.
Conclusions: There is a significant relation between the coronary artery disease and the frequency of readmission. It is necessary to carry out studies covering higher number of patients in this respect.

P-424
The hidden abscess

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Case report: A 91 year old lady was admitted with a fall and confusion. Past medical history included TIA, hypertension, cognitive impairment and diverticular disease. Examination revealed decreased power in the right upper and lower limb, right upper motor neuron facial nerve palsy and right sided sensory loss. She had sustained a laceration to the right leg. CT brain revealed intraparenchymal haemorrhage within the left frontal lobe. She underwent rehabilitation with significant improvement. 3 weeks into the admission she developed fever and elevated CRP. Examination did not reveal localised infection. Investigations including a leg wound swab, urine culture, blood cultures, chest radiograph and trans-thoracic echocardiogram were all normal. No confirmed source of infection could be identified, and the fever and inflammatory response continued. She appeared otherwise well and was haemodynamically stable. A dental team visited the ward to review all our patients' oral hygiene. They noted this lady's bottom teeth were loose though not painful, and recommended imaging with an orthopantomogram. This revealed a dental abscess, which explained her recurrent fever. She was treated with intravenous co-amoxiclav, responded well and the CRP normalised. The infection resolved fully and she made a good recovery.
Conclusion: Our case reinforces the need to take a broad and thorough approach when investigating occult infections, as well as highlighting the value of ready access to dental care for patients during long inpatient admissions. Dental abscess is not commonly thought of and can be easily missed.

P-425
The importance of a quick treatment

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A woman (78 years-old) goes to Emergency, referring in the last two weeks to intense headache and double vision with an intermitent look to the left. The day of admission wakes up with worsening pain and drooping eyelid. FFCC: conscious and oriented. No alterations of the language. PPCC: anisocoric pupils with right mydriasis not reactive to light. Paralysis of the upper right, lower right, and right internal binocular diplopia in all positions of the eye except for the right lateral view. Right parietal ptosis contacting upper pupil border. V, VII, VIII and normal low pairs. F.of eye not papiledema (Valued by normal AV ophthalmology in both eyes). Tone and force conserved in the four extremities 5/5. ROT ++/++++. Bilateral flexor RCP. Superficial and painful tactile sensitivity conserved in the 4 extremities. No dysmetria or dysdiadochokinesias. Analytical: Normochromic normocytic anemia. Rest as normal. VSG 57. Biochemistry: without alterations.
Differential diagnosis: Tumor metastasis, ophthalmoplegic migraine, cerebral aneurysms, temporal arteritis (Comparative table is included where the final diagnosis is indicated). TREATMENT: Methylprednisolone 1g i.v. 3days. Subsequently prednisone 60mg/day when the visual loss stabilized.
Discussion: Giant cell arteritis is the most common form of systemic vasculitis affecting the elderly with potentially severe systemic and ophthalmologic complications. It's a diagnostic challenge because of its clinical presentation, which has a wide and variable spectrum of signs and symptoms. In the case of the patient, treatment with corticosteroids was started, improving rapidly from the clinic so it was not possible to perform a biopsy of the temporal. It evolved favorably and in the month-to-month review was asymptomatic

P-426
Trajectories of depressive symptoms and apathy from hospitalization to three months post-discharge; The Hospital-ADL study

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Depressive symptoms and apathy are both causes for and a consequences of hospitalization among older persons. Depressive symptoms and apathy are highly heterogeneous in its course, and psychological or physical recovery may be related to distinct trajectories. These trajectories are unknown in the context of acute hospitalization and possibly important for post-hospital recovery. Therefore, the aim of this study was to identify distinct trajectories of depressive symptoms and apathy from acute hospitalization until three months post-discharge and to study the incidence of functional decline and mortality three months post-discharge in these trajectories. We conducted a multicenter prospective cohort study, the Hospital-Associated Disability and impact on daily Life (Hospital-ADL) study, including 400 acutely hospitalized patients of 70 years and above. Data were collected in six Dutch hospitals. We identified three depressive symptoms consistently trajectories among acutely hospitalized patients: 1]high level of depressive symptoms (10%), 2]moderate level of symptoms (28%), and 3]minimal symptoms (62%). Percentages of functional decline in the first, second and third group were 32%, 31%, and 12%, respectively. Mortality rates per group were 25%, 17%, and 5%, respectively. We identified three apathy trajectories: 1]consistently high level of symptoms (19%), 2]), 2]consistently moderate level (23%), and 3]moderate level of symptoms and decreasing post-discharge (15%). Percentages of functional decline were 23%, 7%, and 15% respectively. Mortality rates per group were 14%, 3%, and 0% respectively. These distinct trajectory groups of depressive symptoms and apathy provide information about the possible prognosis of these symptoms and functional recovery after an acute hospitalization.

P-427
Two men with unexplained weight loss

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Case report: We present two cases of 70 year old men: both British, Caucasian, heterosexual, and working in professional roles. The first presented with unexplained diarrhoea and colonoscopy showed lymphocytic colitis. Over next 6 months he developed ophthalmic shingles and lost 12kg in weight. He then presented with left sided weakness. MRI showed acute and multiple old right cerebellar infarcts. He was diagnosed with post-zoster stroke syndrome and treated with intravenous aciclovir and antiplatelets. Further testing revealed him to be HIV and syphilis positive, with CD4 count of 80 and viral load of 28474 and commenced on ART. The second had a 4-week history of deteriorating cognition on a background of 4 years of chronic ill health, including muscle wasting and weakness, 16kg weight loss, recurrent oral candida, and Bell's Palsy. MRI brain revealed cerebral volume loss. He then presented with thrombocytopenia and worsening confusion. Testing revealed him to be HIV positive, with CD4 count of 28 and viral load >1 million. Diagnoses of HIV-associated dementia and immune mediated thrombocytopenia were made. IVIg and HAART were commenced and his confusion improved.
Discussion: The age distribution of newly diagnosed HIV is changing, with diagnoses in older adults increasing. Late diagnosis is associated with HIV-related morbidity and mortality in UK, and older adults, particularly white, heterosexual men, are at increased risk of late diagnosis. Both gentlemen had been investigated for conditions which, in hindsight, were HIV-related and according to British HIV Association guidelines should have triggered an HIV test.

P-428
Understanding the phenomenology of unplanned admissions in patients with Parkinson's disease, to drive service development and quality

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Introduction: Patients with idiopathic Parkinson's disease (iPD) may be admitted to hospital with unanticipated acute illness. An understanding of the factors associated with hospital admission could be used to design a bespoke service to enhance patient care and safety, and promote discharge home.
Methods: All unplanned iPD admissions to the Emergency Assessment Unit (EAU) of a University teaching hospital between 1st January and 31st December 2014 were identified by electronic search for coded cases. Retrospective electronic case note review of each admission was undertaken.
Results: 80 patients (male 52.5%, mean age 77.2 years) accounted for 136 admissions. 26/80 (32.5%) were known to have dementia. The principle diagnoses on admission were falls (24.3%), delirium (9.6%) and immobility (7.4%). The overall delirium rate was high (30.2%) and strongly associated with mortality. Medication errors in the first 24 hours of admission were also common (76.9%), with 137/563 (24.3%) doses missed. Mean length of stay was noted to be

longer on non-Geriatric specialty wards (23.1 days versus 16 days). 65.4% never saw a member of the iPD team during their stay.
Conclusions: Having determined patterns of admission and targets for quality improvement, an in-reach programme was developed in 2015. This involved a timetabled, Geriatrician-led presence by a member of the iPD team on the EAU, and incorporated an Emergency Care Bundle to address medication management, delirium screening/intervention and other strategies. This framework has further evolved to include an email alert system for admissions and enhanced follow-up for the duration of that patient's stay.

P-429
Why can I see two doctors?

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A 76-year-old woman who has been admitted for dizziness, fever and general malaise for two days. In Urgencias, ITU is targeted. And enter with ceftriaxone 2g/24h. At the first day she had, partially yielding with antipyretics. It also refers to frontally predominant headache and vomiting. Decreased consciousness level. Her family finds her more oblivious than previous days. In the face of suspected encephalitis, a large study is urgently conducted and empiric treatment with acyclovir is initiated. No allergies, Diabetes, ex-moderate drinker, colonic diverticulosis. Medication: Metformin 850mg/12h. Exploration: Conscious, bradypsychic. Well moisturized, perfused and colored. AC: rhythmic without blows. AP: normal. EEII: without edema. NEURO: normal. Analytics: CT CRANEAL and RM CRANEAL: normal. EEG: Irritative activity with pseudoperiodic complexes ofBilateral temporal topography predominating to the right. PCR for HSV1: positive. Diagnosis: Herpetic encephalitis. Treatment: Acyclovir 800mg/8h – 14 days. Evolution: It presented a favorable evolution. After 2 weeks of treatment, the patient was discharged with severe amnestic sequelae. Herpetic encephalitis is a serious disease, with a high mortality rate and neurological sequelae in relation to others. It is mainly caused by HSV 1 by 90%. The clinical presentation together with EEG, MRI and CSF analysis are key in its diagnosis. The treatment is intravenous acyclovir at a dose of 10 mg/kg/8 h for 10–21 days. A high diagnostic suspicion and a fast onset of treatment dramatically change the prognosis, improving survival. It's recommended to initiate antiviral therapy in the first four days to avoid mortality and short-term complications.

Area: Geriatric rehabilitation

P-430
ACCRA Project: Agile Co-Creation for Robots and Aging

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Introduction: European population is getting older. This is the result of a simultaneous drop in fertility rates, longer life expectancies and a shift of the post-war baby boom generations to the top of the age pyramid. This demographic shift implies the understanding of healthy aging and age-related diseases as one of our future challenges. The aim of ACCRA (Agile Co-Creation for Robots and Aging) is to enable the development of advanced ICT Robotics based solutions for extending active and healthy ageing in daily life by defining, developing and demonstrating an agile co-creation development process.
Methods: ACCRA robotics solutions will be designed and developed to be tested in three different domains: walking support, housework, conversation in four countries (i.e. Italy, France, Netherlands and Japan). ACCRA project consists of three robotic applications which aims to promote the independent living by means of personal mobility application, to support the daily life management thanks to housework application and to promote conversation rehabilitation tailored on personal attitude by means of dedicated software programme. Additionally, ACCRA project will be designed and developed on open source framework (i.e. ROS, FIWARE, universAAL and Rospex) to promote the interoperability among scientific community.
Conclusions: The availability of new solution to increase independence and increase quality of life in a sustainable manner appear to be mandatory considering the actual socio-economic situation over the industrial countries.

P-431
An intervention project for the community-dwelling elderly living in a rural area of Izmir to prevent falls

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Introduction: Balance disorders (BD) are one of the most important risk factors leading to falls. The purpose of the present study was to determine the elderly people with BD and history of falls, the etiologies, and to identify the elderly who need aids and to supply support for them in a rural area.
Materials and methods: A total of 639 elderly living in a rural area over 65 years of age who were selected by stratified random sampling were enrolled. The study was performed as face to face survey study at homes of the elderly. BD was determined by "Berg Balance Scale" (BBS).
Results: The frequency of BD and falls in the previous year were 34.6% and 39.1%, respectively. The mean of BBS score was 43.49. Older age (mean: 73.99±6.6) ($p<0.001$), female sex ($p<0.001$), presence of defective vision ($p=0.001$) and impaired walking ($p<0.001$), increase in the number of chronic disease ($p<0.001$) and drugs used ($p<0.001$), presence of incontinence and nocturia ($p<0.001$), no regular physical activity ($p<0.001$), loneliness ($p<0.001$), absence of free time activity ($p<0.001$), a history of falls ($p<0.001$) were associated with BD. The support supplied will be discussed.
Conclusion: BD and falls are common in the elderly, and it is crucial to prioritize preventive health services in the elderly population.

P-433
Assessment of burden and its associated factors among the caregivers who provide home care to their family members over the age of 65

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Aim: Care needs of the elderly are an important issue affecting the well-being of caregivers and the elderly in Turkey due to the burden placed on family members. This study aimed to the burden and find out the factors associated with burden among caregivers who involve in the home care for their family members, who are at least 65 years old in Manisa, Turkey.
Method: This cross-sectional study comprised 156 individuals above the age of 65, who applied to home care service and their 156 family members, who provide them home care. Data were collected with the Personal Information Form, Katz Index of Activities of Daily Living and Zarit Caregiver Burden Scale. In order to carry out this

research, legal permissions have been taken both from the Clinical Research Ethical Committee of the Medical Faculty of Celal Bayar University. All data was evaluated using descriptive analysis and t-test, Mann- Whitney U Test, ANOVA, Kruskal-Wallis test, Pearson correlation analysis.
Results: The average burden of caregivers have been shown to be 29,7 with a standard deviation of 14,08. Most of the caregivers have been identified as individuals, who are woman, married, with children, with low educational degree, with social security, and housewives. Having the caregiver in the lower social class, having the patient's daughter-in-law, extended family structure and patient's bad health perception are the reasons that increase the caregiver's burden.
Conclusion: The study determined that primary caregivers bore a heavy burden of care. Therefore, caregivers' burden of care levels and difficulties should be determined, and they should be given professional support including counseling services.

P-434
Audit of accident and emergency reattendance following discharge from Discharge-to-Assess Unit Wellington House

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Introduction: Wellington House (WH) is a novel unit operating a discharge-to-assess model in South Manchester, UK. The unit accepts frail patients from the acute hospital who require further assessment of cognitive impairment or time to correct deconditioning. The goal is to facilitate safe discharge to a patient's own home, thereby reducing 24hr care admission through promotion of patient independence. Accident and Emergency (A&E) reattendance following a stay at WH was examined, alongside independence indices, to determine the effect of WH on future acute presentation.
Method: The audit period was defined as December 2014 to January 2016, all patients who were treated at WH during this time were identified. Data was collected regarding the number of A&E attendances by the cohort in the 6 months before their stay and in the 6 months after their stay. Further data was collected concerning the cohort's Bartel independence index score on admission and on discharge.
Results: There were 444 A&E attendances by the WH cohort in the 6 months before their stay, and 202 attendances in the 6 months after their stay. This represents a reduction of 55%. Average Bartel independence on admission was 9, which raised to 14 on discharge.
Conclusions: WH cares for a frail elderly population and achieves an increase in their independence status. The model results in a marked reduction in A&E attendance among the cohort.

P-435
Audit of readmissions following admission to Discharge-to-Assess Unit Wellington House

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Introduction: Wellington House (WH) is a novel discharge-to-assess unit operating in Manchester, UK. It accepts patients from the acute hospital who are deconditioned or require further assessment of their cognitive impairment. WH focusses on enabling safe discharge to a patient's own home and reducing 24hr care admission by promoting patient independence and early mobilisation. Avoidable and non-avoidable readmissions to the acute hospital following discharge from WH were reviewed, with a view to determining the effect of WH on future hospital admission.
Methods: All readmissions between December 2014 and January 2016 were examined. Data was collected pertaining to presenting complaint and length of stay (LOS) using a standardised proforma. Avoidability of the readmissions was assessed both objectively and subjectively.
Results: Of the 220 patients treated at WH during the audit period 33 were readmitted, giving a readmission rate of 15%. The LOS on readmission was 3 days shorter than during the original admission. Most patients were readmitted with different problems to their original admission. The number of patients readmitted with falls fell by 70%. 14% of the readmissions were felt to be potentially avoidable by staff or processes at WH, the principle culprit being communication errors.
Conclusions: The WH model produces a low readmissions rate with a reduced length of stay compared to original admission. The service is effective at treating the reason for admission, particularly with regards to falls. There is scope for improvement in staff communication.

P-436
Characteristics and rehabilitation outcomes of older parkinsonian patients attending a day hospital

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Introduction: Day hospitals provide older people with ambuatory access to multidisciplinary team (MDT) assessment, though there is limited evidence on their effectiveness. The Irish National Clinical Programme for Older People recommends developing Day Hospitals as hubs, coordinating care needs of patients with complex conditions and co-morbidities such as Parkinson's disease (PD). This study aims to examine characteristics and rehabilitation outcomes of older patients attending a day hospital, including those with PD.
Methods: Data was collected for patients attending a Day Hospital incorporating a PD review clinic in a tertiary referral university teaching hospital from January-March 2012 and January-March 2016. Information on demographics, duration of rehabilitation and pre/post functional scores were collected. Electronic data was reviewed for PD patients, examining subtype, medications and rehabilitation outcomes.
Results: In 2012, a total of 150 patients attended day hospital for an average of 6.9 weeks. Mean age was 79.5. 24.7% (37/150) attended PD review clinic for an average of 5.4 weeks. In 2016, 123 patients attended, for 7.3 weeks on average. Mean age was 79.3. 30.9% (38/123) attended for PD review, for an average of 6.5 weeks. Though not electronically recorded for all, mean UPDRS motor scores increased from 13.4 in 2012 to 35.5 in 2016 and timed up and go from 12 to 17.5seconds.
Conclusions: Day hospitals are a valuable resource for older patients and review of rehabilitation outcomes is ongoing. Though fewer attended in 2016 than 2012, the increasing proportion of Parkinson's patients and higher average scores recorded suggest those attending may be increasingly complex.

P-437
Chronic dysfunctional foot in older persons

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Introduction: Older people frequently develop impaired balance and functional ability. One main cause of this affections is represented by the the foot and ankle problems. This conditions affect the quality of the life in elderly. One important role in the disability of this patients is played by the painful foot.
Material and method: In this study we want to demonstrate the relationship between the painful foot, the disability and the quality of life in older people. We selected 30 patients (17 women and 13

men), aged between 65- 80 years old, who suffered from severe foot pain associated with disability for the last 3 months or more. We observed the walking speed, the endurance and we correlated this with the analog visual scale. We modulated this with gender, race, age, IMC, comorbidities, smoking status and the number of other pain locations.
Results: We could observe that the incidence of foot pain is really high, and also is increasing in the last years. This symptom is directly proportional with the disability prevalence and also with the limitation of the activities of the daily living. Hallux deformities, calluses or corns, edema, hammer toes and pes planus are the main affections that cause this symptom.
Conclusions: The two components of pain, the sensory and the emotional, influence each other and correlated with the reduced functional ability, the increased risks of falls and the reduced physical and mental (depression) aspects influence the quality of life for older persons. This aspects are very important ones especially when the treatment solutions is in discus.

P-438
Effect of a novel elongation training (ELT) on frail old adults' physical abilities

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Purpose: We developed an original ELT which is able to execute easily by a frail old adult. The purpose of this study was to examine effect of our ELT on frail old adults' physical ability.
Methods: 34 frail old adults (age: 83.1±6.7 yrs) who join to an ambulatory rehabilitation program participated in the study. They were randomly assigned to the ELT (ELT group, n=23) and to the standard physical therapy groups (control group, n=11). The training program consisted of 24 sessions administered over 12 weeks. Contents of single session for ELT group were 10 minutes ELT and 10 minutes physical therapy. Contents of single session for control group were 20 minutes physical therapy. We measured participants' physical abilities (muscle strength and lower leg muscle functions) in baseline, after 4, 8, and 12 weeks. The key analysis was 2-way mixed-design ANOVA, and a Bonferroni's contrast was used for post hoc test. Statistical significance was set for all analysis at $p<0.05$.
Results: There was no significant time by group interaction in all measured score. The time main effect was found in 30-second chair stand test, knee extensor strength, and 2 step test.
Conclusion: Results of this study suggested that our ELT produces effects to increase old adults' physical abilities in similar level with the standard physical therapy. The main merits of our ELT do not need other's help and old adults can execute our ELT easily in sitting and/or lying positions.

P-439
Effects of high-intensity interval training on the cardiac rehabilitation in the elderly patients

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Objectives: To investigate the effect of high-intensity interval training (HIIT) on the outcomes of cardiac rehabilitation (CR) in elderly patients and young patients after myocardial infarction (MI).
Methods: From January 2015 to December 2016, we retrospectively reviewed the medical records of the patients who received HIIT through the outpatient clinic. A total of 15 patients were enrolled, 6 of whom were elderly (≥55 year) and 9 were younger (<55 year). The HIIT program was composed of 10 minutes of warm-up, 30 minutes of interval aerobic exercise, and 10 minutes of cool down. The interval aerobic exercise consisted of 3-minute usual intensity work phase (60–70% of heart rate/VO2 reserve) and 4-minute of high-intensity work phase (70–90% of heart rate/VO2 reserve) (Fig. 1). Exercise capacity was measured by symptom-limited exercise tests before and after hospital-based CR.
Results: A ll 15 patients were male and the mean age of the overall patients was 53.4±9.2 years. The mean age of the younger (<55 year) group was 47.2±4.2 years, and that of elderly group (≥55 year) was 62.7±6.3 years. Between before and after HIIT, resting heart rate and submaximal rate pressure product at stage 3 were significantly decreased and metabolic equivalent tasks, peak oxygen consumption and maximal oxygen pulse were significantly increased in the elderly group, but there was no significant difference in the younger group. In comparison of the percent changes in the exercise capacity before and after HIIT, there was no significant difference between the two groups.
Conclusions: There was significant improvement on exercise capacity in the elderly group compared to the younger group after HIIT. The degree of improvement in cardiopulmonary exercise capacity after HIIT between elderly group and younger group was similar. For improving cardiac function, active interventions in possible elderly groups are necessary.

P-440
Evaluation of physical training upon endocrine, physiological and sexuality status in elderly men

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Introduction: With rapidly growning geriatric population and with the improvement in quality of life, sexuality is becaming an increasingly aspect of aging.
Objective: Investigation of the role of physical training program of moderate intensity on endocrine modulation, amelioration of depression and sexual function in elderly men. Our study was done on 42 patients aged 60–82:21 active (groupA) and 21 sedentary (group B) admited in Rehabilitation Clinique for different osteoarticular and postraumatic pathologies. Standard physical exercise program (F.Revnic et al. GERIATRIA, vol.XIV, nr.1 2002] was applied for 16 weeks.hTSH,T3, T4, HGH, Testosteron and Cortisol were evaluated before and after training with1234 DELFIA Research Spectrofluorimeter using Eu+ labbeled kits purchased from Pharmacia. The results were processed with a Multicalc program. Evaluation of muscle efficieny was done before and after training with Schwartzer Picker 2000 EMG
Results: 70% patients from group A were euthyroid, HGH, Testosteron and Cortisol were in normal range, with a positive atitude towards sexual life. 56% sedentary patients of group B presented hTSH values >6I.U/ml corresponding to hypothyroidism with elevated levels of Cortisol and low levels of HGH and Testosteron. They exhibited anxiety with the following symptoms: irritability, exagerated fear for the future, tiredness, difficulty in communication, sleep disorders and a negative atitude towards sex. After training,a decrease in Cortisol and an increase in Testosteron and HGH in group B was recorded with a positive consequence upon affectivity (interest in sex).
Conclusion: Physical training with its multiple aspects (cognitive, mental and socio-afective)had a great impact upon reorganisation of hypothalamo-pituitary-thyroid-adrenal-gonadal axis in elderly men connected with changes in many effector hormones secretion with a positive impact upon emotional well being, mental health and an increase in desire for sexual life

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Everyday life in older men living alone – a complex view needs a holistic perspective

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Introduction: To be an older man living alone might mean a decreased health, and good health is a strong predictor for increased abilities in everyday activities. The life situation of this group is not well studied and need to be explored in a greater extend. The aim was to explore how older men living alone describe their everyday activities as well as their ability, and what could facilitate their ability, in performing everyday activities.
Methods: Qualitative semi-structured interviews were analysed with inductive content analysis. Eight men aged over 65 years, living alone with home help services, being able to walk and with sufficient cognitive ability were included.
Results: The analysis resulted in one theme "A will to make it on their own, but are dependent of a helping hand" and twelve categories. The men described a daily routine and it was important to be able to get out of their homes, to be physically active and to be part of a social context. Though, medical, psychological and environmental factors constrain these activities. Support from people in the participants' environment, improved medical conditions, and own strategies may facilitate everyday activities. The wish of performing everyday activities by themselves are strong, but also an acceptance of not being able to do this anymore.
Conclusions: The results reflect a complex view of these older men's everyday life. It is important for their independence that health care and rehabilitation staff have a holistic view and works from a biopsychosocial perspective.

P-442

Factors associated to activities of daily living and gait recovery at 1-year follow-up in hip fracture patients admitted to an acute orthogeriatric unit

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Introduction: Hip fracture (HF) affects 50,000 people annually in Spain. Potential complications include long-term functional decline. The aim of this study was to assess the factors associated to functional recovery (FR) one year after HF.
Methods: A cohort of HP patients admitted to an Orthogeriatric Unit at a University Hospital was followed during 1-year. Sociodemographic, clinical, nutritional, functional, cognitive and analytic variables were analyzed. Functional status was assessed by Barthel Index (BI) and ability to walk by Functional Ambulation Classification scale (FACs). Patients were considered to have FR if the score of BI or FACs at 1-year was equal to or greater than baseline. A multivariate logistic regression analysis was ruled out with the variables associated to FR in the bivariate analysis.
Results: A sample of 103 patients was studied. At baseline all the patients were independent or slightly dependent (BI >65). One-year after HF, 54.4% and 75.7% of the patients had recovered or improved the BI and the ability to walk, respectively. In multivariate analysis, patients with FR of BI were younger (OR: 3.16) and had normal values of vitamin D at admission (≥30 ng/ml) (OR: 1.24). Patients with FR of FACs were younger (OR: 3.8) and had better cognitive status at admission – Pfeifer Questionnaire score <5 – (OR: 7.31) (All with $p<0.05$).
Conclusions: Age, levels of vitamin D and cognitive status at admission play a role in long-term FR in patients with HF.(Supported in part by a grant from Nestlé Health Science to the IdiPAZ).

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Fatigue post-stroke – a 7 year follow-up study

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Introduction: Post-stroke fatigue (PSF) is a common and distressing problem after stroke [1] but there is a lack of knowledge on long-term prognosis. This study explores fatigue in an elderly population with mean age of 72 years when suffering the initial stroke. The cohort is followed for 7 years. The subjects included were participants in the project "Cognitive impairment after stroke and TIA" [2].
Methods: A longitudinal study of participants with first-ever stroke or TIA explored fatigue for 123 of 210 participants at the one-year follow-up. The Fatigue Severity Scale (FSS) measured fatigue at 1 and 7 years after the initial stroke. Sociodemographic characteristics reported was gender, age, education (more or less than nine years), vascular risk factors, weight and height. Body Mass Index (BMI) was calculated. The exclusion criteria were pre-stroke cognitive impairment and dementia.
Results: A total of 65 participants (49% women), mean age 80.7 years were included in the analyses, with registered score on FSS at 1 and 7 years post-stroke. Mean total fatigue score were 31.2 (SD=13.4) at one-year follow up and 30.53 (SD=13.6) at the seven-year follow up. In the multiple regression analyses FSS showed association with Trail making Test A (TMT-A) ($p=0.001$) and Trail making Test B (TMT-B) ($p=0.001$), Hospital Anxiety and Depression Scale (HADS); depression ($p=0.03$) and anxiety ($p=0.01$) at the one-year follow-up. Age, gender, education or neurologic impairments measured by NIHSS showed no significant associations to FSS ($p>0.05$).
Conclusions: The included participants reports fatigue at the seven-year follow at the same level as at the one-year follow-up. The results indicate that cognitive flexibility, attention and executive functioning, as well as depression and anxiety at one-year may predict PSF 7 years after stroke.
References:

[1] Wu S, Kutlubaev MA, Chun H-YY, Cowey E, Pollock A, Macleod MR, Dennis M, Keane E, Sharpe M, Mead GE: Interventions for post-stroke fatigue. Cochrane Database of Systematic Reviews 2015
[2] Ihle-Hansen H, Thommessen B, Fagerland MW, Oksengard AR, Wyller TB, Engedal K, Fure B: Multifactorial vascular risk factor intervention to prevent cognitive impairment after stroke and tia: A 12-month randomized controlled trial. Int J Stroke 2012

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FIT4FRAIL: Fitness training for frail elderly during orthopaedic geriatric rehabilitation

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Introduction: Physical Fitness Training (PFT) is a core element of orthopaedic Geriatric Rehabilitation (GR), aimed at improving

physical functioning and independent living, but there are large differences with respect to its implementation in current GR programs. Lack of clear recommendations underlie this variation among elderly care centres and it is likely that current programs are sub-optimal. In addition, it is unclear which patient related factors as well as environmental determinants are most important in orthopaedic GR. Hence, it is unknown whether and how existing knowledge on PFT can be translated to frail patients admitted to orthopaedic GR.FIT4FRAIL aims to 1) develop recommendations for PFT in orthopaedic GR programs and 2) study the feasibility and effects of implementing these recommendations for PFT in orthopaedic GR.

Methods: Three separate work packages are planned: 1. A systematic review and a Delphi study to obtain evidence based recommendations on the characteristics of PFT. 2. Identifying the specific characteristics, barriers and facilitators of current orthopaedic GR programs of geriatric care centres within the University Network (UNO-VUmc). 3. Designing and piloting a new PFT program in a sample of GR patients.

Results: Results will include 1) scientific evidence and expert opinions on preferred PFT in 2017, 2) characteristics and factors involved during current orthopaedic GR in 2019, and 3) knowledge on the feasibility and effects of a new PFT program in 2021.

Conclusions: Specific recommendations will be given for tailored Physical Fitness Training in orthopaedic Geriatric Rehabilitation.

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Functional independence and related factors in older people with osteoarthritis referring to hospitals in Mashhad, Iran in 2016

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Introduction: Osteoarthritis is one of the leading causes of disability and loss of functional independence in older people. This study was conducted to describe functional independence and related factors in older people with osteoarthritis in Mashhad, Iran.

Methods: This descriptive-correlational study was conducted on 300 older people with osteoarthritis above 60 years old attending clinics of rheumatology and rehabilitation in hospitals of Mashhad University of Medical Sciences in 2016. Self-report demographic and disease status and activities of daily living (ADL) questionnaires were used for data collection. Data were analyzed with SPSS software.

Results: The mean age of participants was 70.75 (±7.27) years. 61% of older people were female. 65% had body mass index (BMI) between 25% and 30%. 68.32% had osteoarthritis lower than 10 years and the knee was the most involved joint (40.66%). Taking a bath and a shower (54%), getting to the bathroom (69%), and walking (78%) were the most troublesome ADLs of older people. Younger participants who were male, married and lived with partner and children, of higher education and income, lower BMI, and shorter duration of osteoarthritis had more independence in activities of daily living.

Conclusions: Osteoarthritis impact on ADLs in older people. Tailored and targeted strategies are necessary to promote functional independence of older people in activities.

P-446
Functional recover after hip fracture in elderely patients

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Hip fracture prevalence increased with advanced age. Sarcopenia, age, comorbidities, cognitive status and environmental origin has an impact in rehabilitation department. We studied functional outcome after rehabilitation hip fracture in old elderly (75 years and older) compared with young elderly (65–75 years) inpatients admitted in 3rd Rehabilitation Clinic during July–December 2016. On admission to rehabilitation treatment, old elderly have more depressed mood in MMSE scale, were more cognitive impaired, and more suffer from pain. Improvement in Functional Independence Measurement (FIM) scale was found in both groups but significantly better in young elderly than in old elderly. The change in FIM during the rehabilitation period was in FIM total and in those parts of FIM concerning locomotion. The mean duration of rehabilitation stay was significantly longer in old elderly patients. On discharge old elderly patients more suffer from pain and difference between the groups according to the FIM, VAS and to the cognitive data increased. Statistical data was analyzed using Windows version 10.0 and Epi Info7. Data was analyzed was given in mean ± standard deviation, minimum and maximum. The correlation test and student-t were used for the comparison of parametric and non-parametric results. P values of less than 0.01 were considered statistically significant. Short-term results for most patients showed improvement of pain, function and cognitive status followed by better tolerance of physical therapy program. The limits of the study are given by the small number of patients included, a lack of a medium and long term assessment.

Conclusions: Age per se is indicator of frailty and determinate functional recovery after hip fracture.

P-447
Gender differences in functional mobility and physical activity in older adults

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Objectives: Functional mobility and physical activity (PA) are the basis of active aging and are closely associated with health status and quality of life. Gender is often described as a personal trait that can change the effects of social and environmental influences on behaviors such as functional mobility and PA. Since few attempts have been made to determine the gender effect, the aim was to investigate the gender differences in functional mobility and PA in older adults.

Methods: This cross-sectional study included age-matched female and male adults aged older than 65 years. Functional mobility measures included the 6-Minute Walk Test (6MWT), 10-Meter Walk Test (10MWT), Four Step Square Test (FSST), Berg Balance Scale (BBS), Timed Up and Go (TUG) Test, and 30-Second Chair Stand Test (30CST), and Barthel Index (BI). PA was assessed with the International Physical Activity Questionnaire (IPAQ)–Short Form.

Results: There were 50 participants (25 female). The 6MWT and 30CST scores were significantly better in male participants ($p<0.05$), however there was no significant difference in 10MWT, FSST, BBS, TUG, and BI ($p>0.05$). PA level was significantly higher in male participants ($p<0.05$). IPAQ was significantly correlated with 6MWT and 30CST in males ($p<0.05$), however not in females ($p>0.05$).

Conclusions: Gender differences were observed in walking endurance, functional lower extremity strength, and PA. Because, PA was not associated with walking endurance or functional lower extremity strength in females, particular attention should be paid to investigate the other possible causes of gender differences such social or environmental in PA behavior.

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Impact of cognitive function on functional recovery after stroke and hip fracture: the FRAIL-BCN study

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Introduction: Stroke and hip fracture (HF) are frequent in older adults and associated with poor health outcomes. We studied the impact of cognitive function on functional recovery after stroke and HF in older adults.
Methods: Cohort study of patients ≥65 years old admitted to geriatric rehabilitation after stroke or HF (January 2015-January 2016). We assessed functional status at admission and after 30 days [Barthel Index (BI), Lawton Index (LI), Gait Speed (GS)], nutritional assessment, Charlson comorbidity index and polypharmacy at admission. Cognitive assessment included: Mini-Mental State Exam (MMSE), Symbol Digit Modalities Test (attention+psychomotor speed), Yesavage Geriatric Depression Scale and Confusion Assessment Method (for delirium). We selected improvement in BI (≥20 points), in BI's gait item (≥5 points) and in GS (≥0.1m/s) (day 30–admission) as outcomes.
Results: We enrolled 202 patients (mean age+SD=83.34±6.71; 69% women), 100 (49.5%) admitted after stroke and 102 (50.5%) after HF. Main baseline characteristics were (mean+SD): in stroke patients, BI=38.6±17.9; GS=0.11±0.15; LI=3.9±2.1; MMSE=21.8±6.0; National Institute of Health Stroke Score (NIHSS)=5.4±3.2. In HF: BI=46.6±17.7; GS=0.07±0.07; LI=4.1±2.2; MMSE=23.2±5.4. In logistic regression models, adjusted for sex, age and BI, in HF, MMSE was associated with GS improvement (OR=3.04, 95% CI: 1.21–7.61) and BI improvement (OR=4.01, 95% CI: 1.44–11.20). In stroke patients, cognitive measures were not independently associated with the outcomes.
Conclusions: In our sample, global cognition was associated with functional recovery after HF, but not after stroke. Our results reinforce the importance of cognitive assessment in geriatric rehabilitation, but MMSE may not be the better tool to assess cognition in subacute stroke patients.

P-449

Indoor geriatric early rehabilitation; a randomised outcome study of 2,579 patients

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Introduction and aims of the study: Indoor geriatric early rehabilitation is very well implemented and sufficiently standardized in many countries. But is indoor geriatric early rehabilitation sufficiently in functional outcome for patients from all assigning specialist departments?
Purpose: Is it possible to reach for all indoor geriatric early rehabilitation patients no matter from which department they come from a sufficient therapeutic progress in functional outcome?
Methods: The retrospective study includes all the patients from 2008 to 2015 which our department of Geriatrics and Remobilisation took over from the neurologic, traumotologic, orthopaedic and internal/cardiological departments. The development was measured with the FIM (functional independence measure). The take over FIM was taken inside 72 hours after arriving and the discharge FIM was taken inside the last 48 hours before leaving.
Results: The study contains 2,579 patients, 848 orthopaedic patients with an average age of 77.67 years, a residence time from 17.79 days and a FIM development from 98 to 113 points; 736 traumatological patients with an average age of 81.75 years, a residence time from 19.02 days and a FIM development from 84 to 103 points; 695 neurological patients with an average age of 77.20 years, a residence time from 20,66 days and a FIM development from 74 to 90 points as well as 300 cardiological/internal patients with an average age of 80.78 years a residence time from 18.18 days and a FIM development from 76 to 96 points. The IM development of all patient groups is 1.20 (±0.15 points) per therapeutic day. The recommended aim value of the American Rehabilitation Counselling Association (ARCA) amounts to1 FIM point per therapeutic day.
Conclusions: It is possible to obtain a sufficient functional progress for all patients in indoor early geriatric rehabilitation independently from which specialist department they were overtaken from.

P-450

Interrupted geriatric rehabilitation requiring transfer to acute hospital setting: Incidence and outcome

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Introduction: Elderly patients after acute hospitalization are at risk of functional decline. A period of rehabilitation to optimize a safe home discharge is often required. These patients may have their rehabilitation interrupted when they become unwell thereby requiring transfer to acute hospital setting. Our objective was to determine the incidence and outcome of interrupted geriatric rehabilitation.
Methods: A retrospective analysis of patients admitted into a 23-bed skilled geriatric rehabilitation ward in St Mary's Hospital, Phoenix Park from March 2012 to February 2016.
Results: 539 patients were admitted for rehabilitation over the study period. 50/539 (9.3%) patients had their rehabilitation interrupted and were transferred to acute hospital setting. 33/50 (66%) were females; Mean age 82.1±8.7 years (range 51–95 years). Final diagnosis after acute hospital transfer was acute severe infections (44%), traumatic fracture secondary to fall (10%), intraabdominal complications (10%), cardiac complications (8%), acute neurological event (6%) and others (22%). Of these patients, 42% had a fatal outcome, 32% returned for rehabilitation, 10% were discharged home and 8% were discharged to long term care. Patients who required acute hospital transfer and subsequently had a fatal outcome seemed more likely to be older and had higher Charlson Comorbidity Index compared to those who did not.
Conclusions: Interrupted geriatric rehabilitation requiring acute hospital transfer occurred in 9.3% of patients; acute severe infection was the commonest cause. These transfers are associated with significant mortality. Rehabilitation programs should focus improvement efforts on identifying suitable subjects for rehabilitation, optimizing care transitions and minimizing rates of transfers.

P-451

Muscle ultrasound in the assessment of older community-dwelling patients with chronic obstructive pulmonary disease. Relationships between cross-sectional area of the muscle rectus femoris, handgrip strength, and fat-free mass

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Introduction: The objective was to determine the relationship between rectus femoris muscle size, quadriceps strength, and body fat composition in older men with chronic obstructive pulmonary disease (COPD) and healthy controls.
Methods: This cross-sectional study included 18 community-dwelling robust men aged 65–80 years with stable, severe, or very severe COPD, and 17 healthy controls. Outcome variables were cross-sectional area and antero-posterior diameter on ultrasound of the nondominant rectus femoris muscle, maximum quadriceps strength measured by isometric dynamometry, and fat-free mass index (FFMI) assessed by electric bioimpedance.
Results: Compared with controls, COPD patients had lower quadriceps strength (mean difference 10.4 Kg, 95% CI: 5.2–15.5), area and anteroposterior diameter (mean differences 1.3 mm^2, 95% CI: −2.1 to 0.5 and 1.8 cm, 95% CI: −0.03 to 3.7, respectively), FFMI (mean difference 1.5 kg/m^2, 95% CI: −4.3 to −1.2) and 6-minute walking test (mean difference 148 m, 95% CI: −216 to 80). Cross-sectional area was 4.3 (SD 1.05) cm^2 in patients in front of 5.6 (SD 1.25) cm^2 in controls. A moderate correlation was observed between rectus femoris area and strength of the nondominant quadriceps (R=0.497, p=0.036), fat-free mass (R=0.584, $p<0.001$), dry lean mass (R=0.572, $p<0.013$), and FFMI (R=0.549, $p<0.018$).
Conclusion: Isometric dynamometry, electric bioimpedance, and muscle ultrasound provide complementary and relevant information that is useful in the assessment and monitoring of older patients during COPD rehabilitation.

P-452
Participation in medical rehabilitation among older Poles – Results of PolSenior study

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Introduction: The rehabilitation process' aim is restoring lost functions which contribute to improving the quality of life and maintaining independence. In this study, we evaluated the participation in medical rehabilitation among older Poles and its socio-economic and health-related determinants.
Methods: Data regarding medical rehabilitation were obtained from the nationwide, multidisciplinary PolSenior project (2007–2012) for 4,813 respondents (48.3% women) aged 65+. Socio-economic status, physical functioning, chronic pain occurrence, medication and formal disability occurrence were accounted for.
Results: One in six respondents (18.9% women vs 15.8% men, $p<0.005$) took part in medical rehabilitation in the past 12 months prior to the survey. Rehabilitation users underwent most commonly: electrotherapy or light radiation therapy (61.3%), massage (52.0%) and passive exercises (51.4%). Logistic regression analysis revealed that women aged 75+ had a lower chance of taking part in rehabilitation than the youngest ones (65–69 y.o.) and participation decreased with age. In men, this pattern was less regular. Village dwellers were less likely to use rehabilitation services than city dwellers. Higher education, functional independence, and multiple medication use promoted participation in rehabilitation the most in both genders. Disability certificate holders and those who reported chronic pain were more likely to take part in analyzed services. Functional independence in women and men, as well as partial dependence only in men, were positively associated with utilization of rehabilitation.
Conclusions: Participation in medical rehabilitation was related to age, place of residence, the level of education, functional status, disability, chronic pain occurrence and medication, both in women and men.

P-453
Post-fall syndrome risk factors, a case-control study of 70 patients

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Introduction: The objective of the study was to identify risk factors for post-fall syndrome.
Methods: We performed a case-control study in wich we included every patients older than 70 years old admitted to the hospital after a fall. Patients who couldn't perform transfer, or couldn't walk indoors, patients with an acute neurologic or orthopedic condition directly responsible for the functional decline were not included. The post-fall syndrome was only held in cases of functional decline observed after a fall.
Results: The study was performed from March 29, 2016 through June 7, 2016. We included 70 patients. Twenty-nine patients exhibited a post-fall syndrome (41,4%). Risk factors for post-fall syndrome included age (p=0,002), walking disorder prior to the fall (OR=9,63 IC 95 p.100: 2,49; 37,30 $p<0,001$), the use of a walking aid prior to the fall (OR=9,10 IC 95 p.100: 2,38; 34,85 $p<0,001$), no unaccompanied outdoor walk in the week before the fall (OR=4,95 IC 95 p.100: 1,24; 19,79 p=0,017), visual impairment making close reading impossible (OR=3,48 IC 95 p.100: 1,18; 10,31 p=0,021), stiffness in ankle dorsiflexion (p=0,003), grip strength (p=0,002) and the fear of falling (OR=4,45 IC 95 p.100: 1,29; 15,42 p=0,014).
Conclusions: The study showed the existence of body funtions and structure impairments and activity limitations prior to the fall among patients exhibiting a post-fall syndrome. Identifying fallers presenting these risk factors as early as possible could ensure the best possible outcome in handling of psychomotor disadaptation.

P-454
Prevalence and consequences of unrecognized benign paroxysmal positional vertigo in nursing homes

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Introduction: Benign Paroxysmal Positional Vertigo (BPPV) is the most common cause of balance disorders and dizziness among elderly, affecting 11% of a group of 75-year old community dwelling individuals [1]. Even though fall incidents and balance problems are higher in institutionalized older adults, the prevalence of BPPV in residential care centers is unknown.
Methods: Forty-one institutionalized older adults (29 female, 11 male; average age, 86.6±5.96 years) were evaluated for the presence of BPPV by vestibular bedside testing (i.e. Dix-Hallpike-, side lying- and roll-test). Romberg test with eyes closed and Timed-up and go (TUG) were registered using APDM 3-axes wearable accelerometer sensors.
Results: Eleven residents had unrecognized BPPV (6 posterior canal, 3 horizontal canal, 2 combination horizontal and posterior canal). Group with and without BPPV was comparable for age, cognition (MMSE) and dizziness handicap inventory (DHI). Residents with BPPV had a significant higher sway area (0.55 m^2/s^{ltext4} versus 0.40

m^2/s^4; p=0.05) and sway velocity (0.44m/s versus 0.29m/s; p=0.01) during the Romberg test and a tendency towards less elevation at midswing during gait (0.78 cm versus 1.11 cm; p=0.06).
Conclusions: Prevalence of BPPV among residents in nursing homes is higher than in healthy community dwelling elderly. BPPV is in this population not related to vertigo or dizziness but to an increased fall risk.
References:
[1] Von Brevern M, Radtke A, Lezius F, et al. Epidemiology of benign paroxysmal positional vertigo: a population based study. J Neurol Neurosurg Psychiatry 2007; 78: 710–715.

P-455
Prevalence of sarcopenia and frailty in older adults in geriatric rehabilitation and its association with malnutrition

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Introduction: Malnutrition is a common in geriatric rehabilitation patients and interacts strongly with sarcopenia and frailty. However prevalence data for sarcopenia and frailty based on standard definitions is still scarce in the field of geriatric rehabilitation.
Methods: Older adults ≥70 years consecutively admitted for a geriatric inpatient rehabilitation at the Division of Geriatric Medicine at the Rehabilitation Centre Oldenburg were included at admission (+ 3 days) in the present study. Sarcopenia was diagnosed based on the definition of the European Working Group. Frailty was diagnosed according to the Fried criteria and malnutrition was identified using the Mini Nutritional Assessment-Short Form (MNA-SF). Statistical analysis was done with Wilcoxon-Mann-Whitney U Test and Kruskal-Wallis Test (α=0.05) for MNA-Sf scores of patients with and without sarcopenia or frailty.
Results: 122 patients (69.7% female, 81.5±5.6 years) were enrolled. The prevalence of sarcopenia was 38.4%. 63.9% of the patients were frail, 33.6% pre-frail and 2.5% were robust. Malnutrition was prevalent at 31.1%, 59.8% were at risk of malnutrition and 9.0% had a normal nutritional status. Mean MNA-SF score tend to be lower in patients with sarcopenia compared to those without sarcopenia (8.2±2.5 versus 9.2±2.3 points). According to the Fried criteria mean MNA-SF scores were the lowest in frail patients (7.9±2.2 points), followed by pre-frail patients (9.7±2.0 points) and robust patients (12.3±1.5 points). Results were not significant.
Conclusions: Sarcopenia and frailty were widespread among older adults in geriatric rehabilitation. MNA-SF scores were lowest in patients with sarcopenia and frailty without being significant.

P-456
Quality of life and its predictors of patients undergoing geriatric rehabilitation – A pilot study

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Introduction: Given demographic change geriatric rehabilitation and the Quality of Life (QoL) of geriatric patients become more vital each day. Whereas the assessment of QoL is often limited to internal clinical criteria of success such as ADL or autonomy there seem to be other rather soft concepts such as Subjective Well-Being (SWB) which should be taken into account when looking at geriatric patients' QoL.
Methods: A pilot study is recently conducted with inpatients of a geriatric rehabilitation ward in Germany. At hospital admission QoL and potential predictors are assessed in a face-to-face interview. The instruments used in this study for functional criteria of QoL assess (I)ADL-abilities, mobility and autonomy. SWB as the other QoL facet is on the one hand represented by hedonic measures such as life satisfaction or affect and on the other hand by eudaimonic measures such as self-acceptance or meaning in life. Furthermore a wide range of medical and psychosocial parameters are included as antecedents (e.g. pain, control beliefs or social network).
Results: Due to this broad approach to QoL in geriatric inpatients the aim of this pilot study and following research is to derive a bio-psycho-social model for QoL in patients undergoing geriatric rehabilitation to get a comprehensive view on what constitutes und contributes to QoL in geriatric patients.
Conclusions: For future research such a model can be of great value as it may create a better understanding of important factors for reaching the geriatric aim of "Restitutio ad Optimum" for each geriatric patient.

P-457
Relationship between physical activity, risk and fear of falling in elderly people

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Objective: To investigate the associations between physical activity, risk and fear of falling in elderly people.
Methods: The study involved community-dwelling Vilnius residents aged 65 years and over, without diseases or conditions which could dramatically decrease their mobility. A specially prepared questionnaire for demographic and falls data, the Tinneti test for assessment of fall risk, and physical activity questionnaire Physical Activity Scale for the Elderly (PASE).
Results: The study sample consisted of 94 elderly people aged from 65 to 88 years. Of all study subjects, 54.2% had experienced falls. Of those who fell, 61 percent had injuries, while 39 percent did not suffer any injuries. In those persons who experienced falls, fear of falling and risk of falling were higher than in those who did not fall (reported fear of falling in 90.2% versus 60.5%, p=0.015; Tinnetti test score 24.8 versus 21.3, p=0.015). Those who have experienced falls, more often stated they feel pain, depression or anxiety than those who did not experience fall. The moderate negative correlation between risk of falling and physical activity (r=-0,472; p<0,001) was found. No statistically significantly relationship was found between fear of falling and physical activity.
Conclusions: In persons who fell during the previous 12 months, the fear of falling and fall risk was higher than in those who did not fall. In community-dwelling people older than 65 years, the fall risk negatively correlated with physical activity.

P-458
The association between the walking endurance, walking speed, balance, and fear of falling in older adults

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Objectives: Walking is an important physiological process that requires coordination of motor, sensory and central nervous systems.

Although evidence suggests that walking speed is associated with balance and fear of falling in older adults, their relationship with walking endurance is not yet known. Therefore, the aim was to investigate the relationship between walking endurance, walking speed, balance, and fear of falling in older adults.
Methods: Adults aged older than 50 years were included in this cross-sectional study. Walking endurance and speed were assessed with the 6-Minute Walk Test (6MWT) and 10-Meter Walk Test (10MWT), respectively. Balance was assessed with the Four Step Square Test (FSST), Berg Balance Scale (BBS), Timed Up and Go (TUG) Test, and 30-Second Chair Stand Test (30CST). Fear of falling was assessed with the Falls Efficacy Scale-International (FES-I).
Results: Ninety-four adults (51 female) with mean age of 71.1 (SD=10.6) years were included. The 6MWT had moderately correlated with the 10MWT, FSST, BBS, TUG, and 30CST ($p<0.01$). The 10MWT had week to strong correlations with the 6MWT, FSST, BBS, TUG, and 30CST ($p<0.01$). The 30CST, FES-I, and TUG were the significant predictors of the 6MWT with explaining 57.1% of the variance. The TUG was the predictor with explaining 90% of the variance in the 10MWT.
Conclusions: The study has indicated that better walking endurance and speed were associated with better balance and less fear of falling in adults older than 50 years. Additionally, the fear of falling is a strong predictor of the walking endurance.

P-459
The effects of complex decongestive physiotherapy in elderly women with breast cancer related lymphedema

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Objective: Older women have a higher incidence and worse survival rate from breast cancer than younger women. Lymphedema is a common complication of breast cancer treatment and breast cancer-related lymphedema (BCRL) continues to affect at least 20% of women undergoing breast cancer treatment with axillary clearance.Complex decongestive physio therapy (CDP) is the most common and effective treatment of BCRL among the others. The aim of this study was to analyze the effects of CDP in elderly women with BCRL.
Methods: Eighteen women with BCRL were included in the study. The mean age of subjects was 68,32±4,32 (min: 62, max: 78). The subjects received CDP for 5 times/week for 4 weeks. The extremity circumference, the range of motion (ROM) and muscle strength of subjects were also assessed before and after CDP. A goniometer was used for the measurement of ROM and the muscle strength was measured by a handgrip dynamometer. For the evaluation of volume reduction, circumferential measurements were used to calculate the volume of the arms with Frustum Formula.
Results: At the end of CDP, there was a significant reduction in the extremity volume of subjects ($p<0,05$). There was only significant increase in shoulder abduction in ROM assessments ($p<0,05$) but any significant difference was not found in muscle strength after the CDP ($p>0,05$).
Discussion: The CDP can be an effective treatment for volume reduction in elderly women with BCRL but some other conservative physiotherapy methods are needed to improve ROM and muscle strength.

P-460
The effects of osteopathic manipulative therapy on chronic low back pain: middle age versus older adults

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Introduction: Osteopathic manipulative treatment appear to provide some benefits when used in addition to usual care for the treatment of chronic nonspecific low back pain. The aim of this study is to determine the effects of Osteopathic Manipulative Therapy (OMT) comparing middle aged and older adults with chronic low back pain.
Methods: One hundred four participants with chronic low back pain were included in the study. They were divided into two groups by age: middle-aged adults (45–64 yr; n=71), and older adults (65–84 yr; n=33). All groups received OMT (soft tissue mobilization and vertebral mobilization) three times in a week for 4 weeks. Pain intensity (Visual Analog Scale; VAS), disability level (Roland Morris Disability Questionnaire and depressive symptoms (Beck Depression Scale) were evaluated before and after treatment program.
Results: The results indicate that there were significant improvements in pain intensity, disability level, and depressive symptoms in the two groups ($p<0.0001$). There were no any significant differences between the groups ($p>0.05$).
Conclusions: Osteopathic manipulative therapy can be used to recovery low back pain symptoms in both middle aged and older adults. This means OMT is a safe method which can also be in older adults.

P-461
The evaluation of the balance in geriatric hypertensive individuals

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This study is designed to evaluate the relationship between the balance performance of the geriatric hypertensive and normotensive individuals and find out the effect of hypertension in the balance behavior of the elderly people. 61 geriatric people were included in our study. All the patients were 65 years old and older and were participating to our study with their own approval. Demographic information of the participants has been recorded. Basic activities of daily living are measured by the KATZ Index of ADLs, cognitive status is measured by Standardized Mini-Mental State Examination, depression status is measured by Geriatric Depression scale, Quadriceps muscle strength is measured by hand held dynamometer, ankle dorsiflexion range of motion is measured by goniometer, gait is measured by Timed Up and Go Test and balance performance is measured by Nintendo Wii. The systolic and diastolic blood pressure is measured before the balance test. Hypertensive group had higher performance time in Timed Up and Go test than normotensive. ($p=0.030$). Parameters of "Completed seconds in Wii Single Leg Balance Test", "Performance score in Wii Single Leg Balance Test" and "Wii fit age" between both hypertensive and normotensive groups were determined significant in the statistical analysis ($p<0.05$). Hypertension seems to affect different parameters of balance among elderly people. For controlling their balance, elderly people should consider their high blood pressure beside their falling history.

P-462
The impact of physical training upon bone and skeletal muscle remodeling in elderly female with osteoporosis

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Our study was done on 48 elderly female patients aged between 65–78 years old with osteoporosis divided into three groups of 16 patients each: Group A without specific antiosteoporotic medication (only Ca++ and Vitamin D and Kineto program), Group B with antiosteoporotic medication, Ca++Vitamin D and Kineto program, Group C without physical effort, Kineto program with antioseo-

porotic medication, Ca++ and Vitamin D. Kineto program has been performed for the first two weeks in kinetotherapy laboratory, three times/week for 50 minutes. At home the patients have been instructed to follow up the training with daily walks in alert rhythm for 30 minutes and to perform heel drops 50/day. HGH and Cortisol serum levels were evaluated before and after training with 1234 DELFIA Research Spectrofluorimeter using Eu+ labelled HGH and Cortisol kits purchased from Pharmacia LKB. Motor neuron training was achieved with a Schwartzer-Picker EMG of biceps and triceps muscle using 4 kg weight training.
Results: Our data pointed out that kineto program can prevent or reduce the % of bone loss in elderly postmenopausal female. Supplementation with calcium and vitamin D improves the efficiency of physical exercise upon BMD by stimulation of hGH secretion with anabolic effects upon all type of cells from the body and by decreasing the levels of Cortisol known as stress hormone with a negative impact upon bone metabolism.
Conclusion: The decline with aging in hGH secretion is not irreversible and physical training is one of the ways which can stimulate hypothalamus and anterior pituitary lobe to produce hGH in elderly female patients with osteoporosis

P-463
The impact of physiotherapy program on pain intensity and fear avoidance behavior in patients with chronic non-specific low back pain: Age differences

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Introduction: Fear avoidance behavior associated with low back pain is a condition that has adverse effects on physical activity, quality of life and mental state in the elderly. The aim of this study is to compare the effect of the Conventional Physiotherapy Program (CPP) on pain intensity and fear avoidance behavior in elderly and young adult patients with Chronic Non-specific Low Back Pain (CNLBP).
Methods: Twenty-three elderly patients with CNLBP (65–85 yrs; mean age: 68.67±4.70 yrs) and 19 young adults with CNLBP (18–39 yrs; mean age: 30.53±6.64 yrs) were included in this study. Both groups were treated with CPP consisting of Hotpack, Ultrasound, TENS and exercise (total 14 sessions). Pain intensity was assessed with Visual Analogue Scale and fear avoidance behavior was assessed with Tampa Kinesiophobia Scale before and after treatment.
Results: In both groups, there was a decrease in pain intensity and fear avoidance behavior after treatment compared to before treatment ($p=0.001$). There was no difference between the groups in terms of improvement in pain intensity ($p>0.05$), while improvement of fear avoidance behavior in young adult patients was found to be higher than in elderly patients ($p=0.031$).
Conclusions: The results of our study showed that the applied treatment program provided more improvement in fear avoidance behavior in young adult patients with CNLBP compared to elderly patients with CNLBP. We believe that the application of the necessary patient education and treatment strategies for eliminate the factors that cause this behavior in the elderly will provide more healing.

P-464
The results of a rehabilitation program in elderly with low back pain

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Our clinic has a day care unit specialized in rehabilitation programs adapted for different types of pathologies, low back pain being one of the most frequent diagnosis. In geriatrics we often have different comorbidities intricating the basic ethiology so the response varies. We have worked on a prospective study including 21 out patients aged between 71 and 86 with chronic sharpened low back pain lasting from one to three months with history of NSAID treatment. Their comorbidities included cardiovascular changes, chronic obstructive pulmonary disease and chronic kidney disease. They have been included in a rehabilitation program consisting of physical and occupational therapy, low frequency electrotherapy and TENS, Laser therapy and manual therapy. Their pain using VAS scale and their capacity of walking using the six minutes walking test were assessed in the beginning and in the end of ten rehabilitation sessions. The results show the positive effect of the rehabilitation program with an improvement of the pain level but with no significant changes regarding the capacity of walking. In order to improve both pain and functionality a rehabilitation program created for the elderely should include more sessions spread on a longer period of time. A further assessment step should be included as a medium term evaluation.

P-465
The role of low power laser therapy, kinetotherapy and physiotherapy in the management of degenerative osteoarticular pathologies in elderly patients

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Aim of study: To see to what extent Low power Laser therapy (LPLT) combined with kinetotherapy (KT), physiotherapy (PT) and antiinflamatory medication (AIM) contributes to amelioration of osteoarticular pathology in elderly population and the impact upon daily living activity (DLA) and quality of life (QOL). 200 patients aged between 55–75 years old were admited in Rehabilitation Clinique, with degenerative pathology of locomotor system: 95 with Scapulohumeral periarthritis (SHP), 81 women and 14 men, simple painful shoulder (SPS)and 105 cases with bilateral gonarthrosis (BG) 85 women and 20 men. Patients were included into 2 groups: A (LPLT) + (AIM) + (PT) and (KT) and B: (AIM) and (PT). After (LPLT) treatment combined with (KT), (PT) + (AIM) in group A there was an amelioration of local algic phenomena – the score on Pain Scale being under 3; For 74 (SHP) patients with pain scale between 3 and 4, pain has decreased from 2 to 1; i.e. 78,2%. For 19 patients with 2 and 3, pain scale has decreased from 1 to 0, i.e. 19,5%. For 2 patients with the initial value 5, Pain intensity has decreased from 3 to 2, i.e. 3%. 3.
Conclusions: Aplication of (LPLT) in degenerative pathology of locomotor apparatus in elderly patients associated with (KT) had net benefic antialgic and antiinflamatory effects than in group B. DLA amelioration for (SHP) was approx. 80% and for knee articulation ~86%, resulting in: an increase in well being state, in professional and social reinsertion, and in family reintegration. In this context (LPLT) is strongly recomended in treatment of degenerative and post traumatic pathologies and their complications in elderly patients either in hospital or in Ambulatory

P-466
The role of physiokinetotherapy in the management of Parkinson's disease

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Objective: Evaluation of physiokinetotherapy (PKT) program associated with medical treatment for Parkinson's disease (P.D) in different evolutionary stages.
Material and method: 42 patients aged between 40–79 years

old with P.D. evaluated by clinical neurological examination have been taken in our study. A three weeks (PKT) program has been performed including: thermotherapy designed for amelioration of musclular pain and rigidity, sedative massage applied before and after kinetotherapy for P.D. stage II and III patients and also for patients imobilised in bed, along with electrotherapy and continuos magnetodiaflux.
Results and discusion: Out of 14 patients in stage IV on Hoehn & Yahr scale, 6 have achieved amelioration of walking, without a substantial amelioration of posture. 5 out of 10 patients in stage III improved posture during walking, but walking has been performed with small steps.P.D. patients stage IV improved daily living activities (ADL) (12 out of 14 patients at the end of 3 weeks therapy) did not required any assistance for ADL but, the remaining two patients required partially assistance. For P.D. patients stage III at the end of three weeks treatment, 9 out of 10 have recovered, only one need assistance for dressing. For patients in stage II the effort for getting dressed was less than before treatment. No significant amelioration for patients in stage V was recorded.
Conclusions: PKT program improved control over gross motor movements such as walking, improved posture and greater confidence in performing daily activities in P.D. patients. The progresivity of PKT program is very important and must be continued at home and in advanced P.D.stages there is necessary cooperation of family members

P-467
The use of trained volunteers to encourage increased ambulatory activity among hospitalised older people: a feasibility study

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Introduction: Sedentary behaviour among older inpatients is associated with functional decline, social isolation, prolonged hospitalisation and nursing home admission. The objective of this study was to explore the use of trained volunteers to promote increased ambulatory activity among older inpatients.
Methods: This pre-post feasibility study was conducted on acute Geriatric Medicine wards at one hospital. Inclusion criteria were patients aged ≥70 years, who were able to walk prior to admission and provide consent. Participants received twice daily volunteer-led bedside exercises or walking sessions on weekdays. Participants who were not independently mobile performed exercises only. The StepWatch Activity Monitor measured mean daily step count before and during the intervention as the primary outcome.
Results: 42 patients (mean age 87.2 years, SD 4.6) had their activity measured (median daily step count 636 steps, IQR 298–1468) pre-intervention. 17 volunteers received half-day training including competency assessment. 50 patients (mean age 86.2 years, SD 5.1) were recruited to the intervention group and 310 activity sessions were offered. The median daily step count of the intervention group was 912 steps (IQR 337–1824), an increase of 43.4%. Adherence to the activity sessions was 74.2% (230 sessions). Common reasons for declined participation were patients feeling unwell or tired, and the need for clinical care. No falls or adverse incidents were reported.
Conclusion: Volunteers can be recruited and trained to safely encourage older inpatients to increase ambulatory activity, with an average increase of 276 steps/day. Research into the acceptability and impact of this intervention is on-going.

P-468
Use of new technologies in the treatment of post-stroke hemiplegia

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Objective: To find alternative techniques to Bobath treatment in post-stroke hemiplegia, through literature search in different databases, its impact on research and clinical practice and the current lines of development.
Method: Systematic review. The search was conducted in the databases Medline, Pubmed, Web of Science and Dialnet, using the following descriptors: hemiplegia, virtual reality, rehabilitation, stroke, new treatment, telerehabilitation and Wii, in the last 10 years. Exclusion criteria were non hemiplegic patients after cerebrovascular disease, or non alternative technique to conventional physiotherapy treatment. Jadad scale was used for articles assessment.
Results: 14 articles were selected, in which different treatments for post-stroke hemiplegia based on new technologies were applied. All results supported the advantages of using new technologies in the treatment. Twelve of them focused on virtual reality (as Tetrax Biofeedback, Wii Balance Board), one was related to robotics, and one addressed the issue of telerehabilitation. The variables under study were: main motor function (gait and balance) and ability to perform activities of daily living. The scales used for the assessment were Timed Up and Go Test, Berg scale, Step test, Time up and Down Stair test, 10 metre walk test, Gait Speed test, Two minutes walk distance test, Caregiver burden scale, Activities-Specific Balance scale and Barthel index.
Conclusion: The use of new technologies in addition to conventional physical therapy can constitute a great combination for the treatment of post-stroke hemiplegia, being adaptable to each case, increasing patient's adherence to treatment and allowing assistance regardless the patient's location.

P-469
Utility of inpatient rehabilitation in elderly acute stroke patients bound for placement in nursing homes

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Background: Singapore is facing rapid societal ageing and the numbers of elderly nursing homes are projected to increase [1]. Currently elderly patients bound for placement at nursing homes receive lower prioritisation for rehabilitation. The increase in volume of elderly nursing home residents highlights the need for more active rehabilitation of acutely debilitated elderly to optimise function and decrease burden of care during institutionalisation.
Objective: To evaluate the utility of active inpatient rehabilitation under specialised inpatient rehabilitation team for elderly acute stroke patients heading for nursing home versus those planned for home.
Methods and results: A retrospective review of 81 geriatric stroke patients in 2015–2016 receiving inpatient rehabilitation was conducted. FIM (Functional Independence Measure) scores (total, motor and cognitive components) and FIM efficiency was compared [2]. 11 patients were discharged to nursing homes, while the rest went home. The mean FIM gain of total, motor and cognitive scores among patients going to nursing home were 19.5 (SD = 7.6), 15.3 (SD = 5.8) and 4.3 (SD = 3.7) respectively. Comparatively, the mean FIM gain among patients going home were 18.6 (SD = 10.7), 14.9 (SD = 8.3) and 3.6 (SD = 5.4).
Conclusion: There were no statistically significant difference in the length of stay, improvement and efficiency of scores between

patients placed in nursing homes and those who went home. This suggests a role for active inpatient rehabilitation of elderly stroke patients planned for nursing home placement optimising function which translates into reduced burden of care [3]. Further prospective studies needs to be done.

References:

[1] Yap Mui Teng, Kang Soon Hock and Chua Chun Ser, Scenarios of future population growth and change in Singapore, IPS update, March 2011.
[2] Linacre, John Michael, et al. The structure and stability of the Functional Independence Measure. Archives of physical medicine and rehabilitation 75.2 (1994): 127–132.
[3] Hamilton, B.B., et al. Cost of disability as measured by the Functional Independence Measure (FIM™) instrument: spinal cord injury. NIDRR Project H133G90157 (3rd ed.) Center for Functional Assessment Research, Buffalo (NY) (1997).

P-470
Validation of post-stroke rehabilitation profiles in older adults

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Introduction: Despite the high prevalence of stroke in older adults, evidence on post-stroke rehabilitation is scarce. We previously developed (Pérez LM, et al, PlosOne 2016) a classification of post-stroke rehabilitation complexity in older adults, and aim at assessing external validity in a different cohort.

Methods: Cohort study enrolling stroke survivors ≥65 years old admitted to an intermediate care hospital during 2016. According to baseline characteristics (stroke severity, cognitive status, current and previous functional status, available caregiver), patients were assigned to 3 rehabilitation profiles, through a decision tree. We analyzed between-profiles differences on functional improvement (FI, Barthel Index), relative functional gain (Montebello/Heineman index), length of hospital stay (LOS), rehabilitation efficiency (FI/LOS), home discharge and costs using multivariable regression models.

Results: We enrolled 170 post-stroke survivors (mean age 79.0±9.3, female 48.8%, 83.5% ischemic stroke), classified in: a) Lower Complexity with Caregiver (LCC, N=68), b) Moderate Complexity without Caregiver (MCN, N=52), and c) Higher Complexity with Caregiver (HCC, N=50). In logistic regression models, both LCC and MCN, compared to HCC, showed higher chances of functional improvement (OR=4.9, 95% CI: 2.1–11.1 and OR=3.8, 95% CI: 1.7–8.8, respectively), higher relative functional gain (OR=4.4, 95% CI: 1.6–10.8 and OR=4.5, 95% CI: 1.7–11.9, respectively, top Vs lower tertiles), and higher chance of home discharge (OR=12.2, 95% CI: 4.9–30.5 and OR=4.0, 95% CI: 1.7–9.3). Compared to MCN, LCC had a higher likelihood of home discharge (OR=2.1, 95% CI: 1.2–7.1). Other outcomes showed no differences between profiles.

Conclusion: In our sample, we confirmed differences in functional outcomes among post-stroke profiles. This classification could help to design tailored interventions to optimize recovery.

P-471
ViTA (Virtual Trainer for Aging): Developing of an experimental system to improve the life of people with dementia

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Introduction: By the year 2050 more than 130 million people over the world will suffer of dementia. A number of areas are under investigation to slow the pathology progression that can complement the pharmacological treatments such as nutrition, physical and cognitive training and social support. In this context we starting to develop the project VITA (Virtual Training for Aging) with the aim to collect and improve the memory of people with dementia.

Methods: ViTA is an experimental system based on the cognitive platform IBM Bluemix integrating a number of cognitive services already available on that platform as well as integrates additional research components developed for the project. The system will be available through a Tablet. Caregivers will interact with it to collect fragments of memory and organizes them into a knowledge map in which each fragment is linked to the other through emotional-awarestories. Patients could access to the system to review their memories and stories leveraging a conversational interface based on speech and textual interaction modalities in addition to traditional interactive interface. ViTA will be tested in the next few months on a small cohort of elderly people with mild cognitive impairment in the Geriatrics Department of the IRCCS Casa Sollievo della Sofferenza. Every patients will be evaluated with a multidimensional assessment and complete neuro-psychological battery including also quality of life and caregiver burden.

Conclusions: This innovative system based on cognitive and emotion-oriented care approach will try to improve cognitive, emotional and social functioning by supporting patients with dementia.

P-472
Volunteer-led mobilisation of older inpatients: qualitative study of stakeholders' views

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Introduction: Mobilisation of older inpatients can reduce medical complications and loss of function. Time-pressured nurses and therapists report that this activity is frequently compromised. The aim was to explore a wide range of views on trained volunteers supporting mobilisation in hospital.

Methods: Semi-structured interviews and focus groups were conducted with 20 inpatients, 7 relatives, 28 staff members and 3 mealtime volunteers at one UK hospital. Interviews were audiotaped, transcribed verbatim, coded and analysed thematically by two researchers to identify commonalities and differences among the participants.

Results: Interviewees were generally positive. However staff thought recognition of unwell patients was important and patients awaiting social input would be most suitable. Volunteer related issues included: their roles and personal characteristics emphasised by therapists, legal responsibilities highlighted by doctors and nurses, training and supervision discussed by nurses and therapists. Environmental issues around timing, space, hospital routines and other patients' health status were noted by nurses and doctors. Concerns including potential staff miscommunication, additional

work for nurses and education regarding volunteers' role were explored by therapists. Many patients were very positive about this idea; others anticipated difficulties motivating participants and limited space in hospital. Relatives agreed that promotion of mobility and mental stimulation would be the main benefits of this programme. Only one relative believed it would be inappropriate to hand this task over to a non-member of staff.
Conclusions: In this qualitative study interviewees expressed positive attitudes to volunteer-led mobilisation of older people provided that specific issues are considered prior to implementation.

P-473
War on constipation: Quality improvement project involving a multidisciplinary constipation prevention and management algorithm

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Introduction: Constipation is common in older adults and often leads to increased incidence of adverse events and prolonged hospitalization. The aim of this project was to improve the quality of care of older adults undergoing rehabilitation in relation to prevention and management of constipation.
Methods: Quality improvement (QI) Plan-Do-Study-Act (PDSA) cycles were used. PDSA 1 was an initial audit of the incidence of constipation in our rehabilitation wards. PDSA 2 included meeting with key stakeholders and the multidisciplinary team (MDT) involved in the care of the patients and development of an algorithm for the prevention, early detection and effective treatment of constipation. PDSA 3 was a re-audit of the service after the introduction of the algorithm. PDSA 4 was the institutionalization of the developed algorithm.
Results: In the audit 2, 19% of patients were noted to be constipated compared to 33% in audit 1. 100% of patients in audit 2 who were constipated were on regular laxatives compared to only 30% of those in audit 1. 72% of all patients in audit 2 were on laxatives on as needed basis compared to 40% of patients in audit 1. The project also resulted in improved communication between patients and the MDT around their bowel habits.
Conclusions: Using a QI methodology, this project resulted in earlier detection, earlier intervention and overall reduction in incidence of constipation in older adults undergoing rehabilitation. The new algorithm was subsequently introduced to all the wards of our hospital

Area: Geriatrics in organ disease

P-474
A clinical case of pulmonary vasculitis in the elderly

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Background: Systemic vasculitis is a group of diseases characterized by inflammation of blood vessels with fibrinoid necrosis and resulting ischemic changes. In the geriatric population it has been frequently described with patient age playing an important role in both the diagnosis and treatment of these diseases. Vasculitis may mimic many common clinical situations of the elderly.
Case report: Female 84 years admitted to hospital for anorexia, asthenia, paleness with 15 days of evolution, associated with symmetric and additive polyarthritis, shoulderes, hips, and knees. She reported morning stiffness greater than 30 minutes. Conscious, hemodynamically stable, fever 38.7°C, without other changes. No relevant personnal background. Blood tests: ESR 120 mm/h, RCP 12.6 mg/dL, Hb 10.5 g/dL, MCV 79 fL, WBC 14.9×10^9/L. No analytical alterations of renal and hepatic functions. Chest x-ray, abdominal ultrasound, and urinalysis without changes. Initially the authors interpreted this clinical case as paraneoplastic syndrome or polymyalgia rheumatica. The patient did upper digestive endoscopy, colonoscopy, and bone scintigraphy without alterations. ANA: 160. At the end of one week of hospitalization, the patient has several episodes of hemoptysis, with severe acute respiratory failure. A thoracic CT scan: bilateral and symmetrical parenchymal densification without active hemorrhage. Subsequently, pANCA and MPO antibodies were positive. It made megadoses of methylprednisolone 1g for 3 days and later 80 mg of prednisolone daily. With the improvement of respiratory insufficiency, the patient perform biopsies, and the diagnose was pulmonary vasculitis.
Conclusion: Although lung vasculites are not frequent at this age, they may arise and adequate treatment should not be delayed.

P-475
A systematic analysis on amino acid transporters of the aging blood-brain barrier

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Introduction: The blood-brain barrier (BBB) prevents toxic molecules to penetrate from the bloodstream to the brain. The BBB assures adequate delivery of nutrients such as amino acids, fatty acids, glucose. We investigated whether aging changes the ability of the brain capillaries to transport amino acids from blood to brain through the BBB.
Methods: Systematic literature review combined with database search for amino acid transport through the BBB and search for expression of amino acid transporters by the endothelium of the aging human brain. Our literature search revealed few human studies, we also performed our search in experimental animals such as rats and mice.
Results The systematic review of the literature revealed that research on nutrient transport at the BBB has been sparsely studied. We identified less than ten human studies. They did however demonstrate effects on transport of certain amino acids in the aging brain. This was also the case in aging experimental animals.
Conclusion: Examination of amino acid transport and their carriers at the BBB in the aging brain revealed that the availability of human studies is sparse. Studies in experimental animals were also few but support a hypothesis that the brain's uptake and transport of amino acids through the BBB correlates negatively with increasing age.

P-476
Acute heart failure in elderly patients with mid-range ejection fraction: realworld evidence from ATHENA Registry

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Introduction: Our purpose was to better characterize the new category of patients with heart failure mid-range ejection fraction (HFmrEF) and to compare them to those with HFpEF and HFrEF in a real world setting of elderly patients hospitalised for acute heart failure (AHF).

Methods: Data derived from the ATHENA retrospective observational study which included elderly patients (≥65 years) admitted with diagnosis of AHF (worsening or de novo) to the emergency department (ED) of a tertiary University teaching-hospital and transferred to cardiology, internal medicine and geriatric wards in the period 01.12.2014–01.12.2015.
Results: 246 patients were enlisted (patients with HFmrEF were 19.5%, 30.5% had HFrEF and 50.0% had HFpEF). Mean age was 83.8, 84.5 and 79.9 years for HFmrEF, HFpEF and HFrEF respectively, $p<0.001$; the prevalence of females was 41.7%, 67.5% and 32.0% for HFmrEF, HFpEF and HFrEF respectively, $p<0.001$. There were no significant difference regarding cardiovascular risk factors and main comorbidities between the three groups. A history of coronary artery disease, instead, was more frequently reported in patients with HFmrEF (41.7%) and in those with HFrEF (36.0%) compared to patients with HFpEF (19.5%), p=0.004. There was not significantly different in in-hospital mortality; the hospital length of stay was: 11.7 days, 9.4 days and 10.1 days for HFmrEF, HFpEF and HFrEF respectively (p=0.18).
Conclusions: Our study shows that patients with HFmrEF appear to be very similar to patients with HFpEF, except for the ischemic feature that seems to bring them closer to those with HFrEF.

P-477
An unusual cause of heart failure in octogenarian patients

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79-year-old patient presented dyspnea on moderate exertion, associated in the last 15 days with increased edema in the lower limbs, testes and subjective increase of the abdominal perimeter with decreased diuresis rhythm. Physical examination: abolition of vesicular murmur in the left pulmonary base and generalized crackles, edema of abdominal wall and edema with foveas to root of limbs. In the tests, cardiomegaly, bilateral pleural effusion with interstitial edema and NT-proBNP 7174 pg/mL were evidenced. On the echocardiogram: left ventricle with increased thickness, suggestive refringence of infiltrate, moderately depressed LVEF. Cardiac MRI: Myocardial diffuse uptake compatible with amyloidosis pattern. Moderate biventricular systolic dysfunction. The patient presented alterations of ventricular contraction for 7 years, is admitted for medical treatment and study with 99mTc-DPD scintigraphy because of poor clinical status. It requires high doses of diuretics in infusion, obtaining a good negative diuresis balance and improvement of heart failure, however, it presents febrile peaks evidencing methicillin-resistant S. aureus in blood cultures. In view of the presence of a pacemaker, it is treated as bacterial endocarditis, scheduling removal of the device and delaying the scintigraphy. The patient presented poor evolution, passing away at 15 days. The senile amyloidosis reaches a prevalence of 36% in patients over 80 years, affects mainly men producing cardiac manifestation, the management is easier to control, with an average survival of 75 months, being the main cause of death arrhythmias and progression of HF. Our patient presented an evolution of 7 years, greater than the average of survival.

P-478
Characteristic aspects of widespread pain in older adults

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Introduction: Chronic pain is a major condition often encountered in elderly and has significant consequences on quality of life. Study objective was to identify specific patterns of widespread pain in elderly.
Material and methods: A transversal study was carried out on 584 subjects, age-range 50–92 years. They were divided into two groups, both presenting widespread pain: 292 adults (50–64 years), 292 elderly (75–92 years).
Results: Most patients were from urban area. Marital status: married adults significantly more prevalent ($p<0.01$), most elderly women were widows ($p<0.01$), elderly men were divorced ($p<0.05$). Obesity was more prevalent in elderly women. Alcohol consumption was declared only in men, slightly higher prevalence in younger group. Most adults had chronic pain for 5 years, while elderly had chronic pain for more than 10 years. For most subjects, irrespective of age, pain was cvasi-continuous. Exercise less involved in amplifying pain, while cold weather was more important in adult women ($p<0.001$) and elderly men ($p<0.01$). Most often localization of pain was vertebral regions, mainly lower back, and girdles. Morning fatigue, more intense in elderly ($p<0.01$). Other associated somatic symptoms; nocturia more prevalent in elderly men, muscle weakness more prevalent in elderly irrespective of gender, insomnia more prevalent in elderly slightly more often in women. Paresthesia, vertigo and headache were more frequent in elderly. Loss of short-term memory and attention deficit occurred in elderly.
Conclusions: Chronic widespread pain has an important impact on older people, is often associated with mood and cognitive disorders and requires a global management.

P-479
Clinical presentation of giant cell arteritis: a study of 94 patients

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Introduction: Giant cell arteritis (GCA) is a granulomatous arteritis involving especially the extra cranial branch of the carotid arteries, usually occurring after 50 year-old. The aim of this study is to illustrate the epidemiological and clinical features of GCA in a group of Tunisian patients.
Methods: A retrospective, descriptive study interesting patients presenting GCA diagnosed between 2000 and 2015. ACR 1990 criteria were used.
Result: A total of 94 patients were included. Sex-ratio was 1.08. Mean age at diagnosis was 72 years (52–88 years) with a mean diagnosis time of 3 months. Hypertension was noted in 35% of patients while diabetes was observed in 13%. Headache was the revealing symptom in 63% of patients. Jaw claudication and scalp hyperesthesia were noted respectively in 56 and 47% of patients. cranial ischemic events occured in 13% of patients with only one case happening after diagnosis of GCA. Arthralgia, cervicalgia and fever were observed respectively in 22, 51 and 35% while polymyalgia rheumatic was present in 47% of cases. Anterior ischemic optic neuropathy was found in 31% of patients. Temporal pulse was absent or weak in 72% of patients. Laboratory evidences of inflammation were noted in 87% of patients. GCA was biopsy-proven in 55% of cases. Corticosteroids were prescribed in all cases, methotrexate in 20% of patients. Mean follow-up was 37 months. Recurrence was noted in 25% of patients.
Conclusion: No female predominance was found in our study. Headache is still the main feature of the disease and polymyalgia rheumatic was present in nearly half our patient.

P-480

Determinants of oral anticoagulants treatment in elderly patients with atrial fibrillation: Descriptive study and 1 year survival in 100 patients hospitalized in geriatric medicine

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Introduction: Atrial fibrillation (AF) is the most frequent arrhythmia in the elderly providing thromboembolic events in the lack of oral anticoagulants (ACO). Our study aims to evaluate the determinants of prescribing ACO through an analysis of the professional practices of geriatric and general practitioners and the outcome at one year.
Methodology: Firstly, retrospective descriptive study of 100 consecutive AF patients 75 years and over hospitalized in geriatric medicine in University Hospital of Dijon (Burgundy – France). Secondarily, prospective study of one year follow-up of patients by a survey of their general practitioners.
Results: Of the 100 patients included, 85% had a known history of AF. Of these, 74.1% were under ACO at entry. Treatment with ACO at discharge was significantly correlated with anticoagulant treatment at entry ($p<0.0001$). The significant determinants of non-prescription of ACO are hemorrhagic risk (Hasbled 2.9±0.9 vs 2.3±0.9; $p<0.01$) and comorbidities (Charlson 8.3±2.1 vs 7.2±2.2; $p<0.05$). Of the 93 patients discharged alive from the hospital, 81 were evaluated at 1 year. The mortality rate was 40.7% (33/81). Adverse events under ACO at one year were stroke (7%) and hemorrhage (15%). ACO treatment was significantly associated were lower mortality (23.3 vs 71.9%; $p<0.05$).
Conclusion: This study showed a high percentage of anticoagulation in patients throughout follow-up according to scientific recommendations. The choice of ACO treatment appears correlated with hemorrhage risk factors and frailty determinants. Despite a lower mortality rate under ACO treatment, the presence of significant adverse events could lead to first-line prescription of direct oral anticoagulants that seem to have a better ratio of efficacy/tolerance/ease of use, even in elderly polypathologic patients.

P-481

Diseases of older people referring to elderly centers of Tehran in 2016

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Introduction: Aging is a natural experience that is usually accompanied by a variety of diseases. This study was conducted to describe older people's disease rate and the number of times they refer to Elderly Centers in Tehran.
Methods: This descriptive study was conducted on older people above 60 years old attending 20 Elderly Centers that were located in five regions of Tehran in 2016. 740 older people were selected from Elderly Centers based on convenience sampling. Self-report socio-demographic and disease rate questionnaires were used for data collection. Data were analyzed with SPSS software.
Results: 471 (63.6%) of older people were male and 269 (36.4%) female with a mean age of 69.76 (±7.5). 586 (83%) reported at least a chronic disease. Besides, 293 (39.4%) people had heart diseases, 165 (22.2%) musculoskeletal diseases, 149 (20.1%) endocrine diseases, and 88 (11.8%) urological and gynecological diseases. Moreover, 657 (88.5%) participants had referred to doctors and therapeutic centers at least once during the last year. 265 (35.7%) visited five or more. Furthermore, 266 subjects (35.9%) were hospitalized at least once last year.
Conclusions: The prevalence of diseases in older people is more than expected. Most older people refer to doctors and therapeutic centers, which is indicative of the fact that they suffer from diseases and need varied health services in a developing country. Tailored and targeted strategies to improve the health status of older people are necessary.

P-482

Frailty in older patients receiving transcatheter vs surgical aortic valve replacement

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Introduction: To compare the prevalence of baseline frailty (using Fried's criteria) in older patients with severe symptomatic aortic stenosis treated having a TAVI with those receiving valvular surgery.
Methods: Single center, observational, descriptive study. Inclusion criteria: all patients admitted consecutively to receive an aortic valve replacement in a 16 month period. Sociodemographic, functional and clinical (EuroSCORE 1 and NYHA) variables were gathered. Frailty was diagnosed using Fried's criteria in three levels: robust, pre-frail and frail. Length of stay and hospital mortality were also noted.
Results: 107 patients were included (58.9% received a TAVI, 41.1% either an aortic valve replacement, 15.9% with simultaneous coronary surgery.TAVI patients were older (mean 82.0±8.3, vs. 78.0±4.7 years, p=0.01). There were no differences in gender or social status.Patients treated with TAVI were more dependent (mean BADL 5.3±0.9 vs. 5.8±0.4, p=0.06, mean IADL 5.3±2.2 vs. 5.8±1.5, p=0.27). Their mean EuroSCORE was higher (12.3±7.4 VS. 8.2±5.0, P=0.03) and they were in, worse cardiac functional class (73% vs. 24.4% in NYHA III-IV, p=0.01). Prevalence of frailty was similar on both groups: 30.2% frail in TAVI vs. 27.3% in surgery, pre-frail 28.6% vs 43.2%. There were no differences in walking speed or muscle strength. Length of stay was shorter in the TAVI group (9.3±11.7 vs. 10.9±16.2 days, p=0.04), with no differences in hospital mortality (1.6% vs. 2.7%, p=0.7).
Conclusions: Patients receiving a TAVI to treat aortic valve disease are older and more dependent than those surgically treated. They have higher EuroSCOREs and worse NYHA class. The prevalence of frailty is similar in both groups.

P-483

Gender influence in clinical, biological and histological features of giant cell arteritis

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Introduction: Giant cell arteritis (GCA) is the most common systemic vasculitis in elderly patients. The aim of this study is to compare GCA epidemiological, clinical, biological and histological characteristics according to gender.
Methods: A retrospective study including patient diagnosed with GCA between 2000 and 2015. GCA Diagnosis was based on 1990 ACR criteria. Patients were divided in two groups: group1 (men) and 2 (women) and were compared.
Results: Ninety-four patients were studied; sex-ratio (M/W) was 1.08. Mean age at diagnosis was significantly high in men (74.12±6.73 years vs 69.56±6.83 years; p=0.002). Mean delay to diagnosis was similar in the two groups. Headache was the most frequent revealing sign in both groups (respectively in 59% and 68% of patients). Regarding clinical features, there were no differences in the two groups; headache (93.9 vs 100%), jaw claudication (63 vs 50%), arthralgia (18.4 vs 26.7%), fever (43 vs 26%), polymyalgia rheumatica (51 vs 42%) and ocular manifestations (40.4 vs 40.9%). Elevated C-reactive protein (94.4 vs 77%, p=0.04) and hypergam-

maglobulinemia (51.3 vs 21.6%; p=0.007) were significantly more frequent in men. Histological features were similar in the two groups. Recurrence was observed in 45.7% of men and 23% of women (p=0.053).
Conclusion: Our study showed no significant difference between men and women concerning GCA clinical presentation, but biological data were more frequent in men. Outcome was similar in the two groups.

P-484
General practitioner and oncogeriatric supportive care in Lyon

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Introduction: Age-related increase in cancer incidence and the development of outpatient treatments lead general practitioners (GPs) to play a pivotal role. To favor ambulatory care, there is a need to identify their treatment perceptions and difficulties.
Methods: A web survey was developed to evaluate GPs' clinical practices and perceptions on supportive care at home. It was validated within a testing cohort and sent by email to 697 GPs from Lyon area.
Results: The response rate was low (6,88%). A majority of GPs (87,50%) declared taking care of less than 5 patients per year. Considering practices, a majority reported regular assessments of pain (100%), depression (97,50%), undernutrition (96,87%) and quality of life (97,50%). They declared to frequently request unplanned hospital admissions (42.50%), since palliative complex situations are difficult to manage at home. Reimbursed paramedical aids (nurses, home care services, supportive care mobile team, physiotherapists) were more frequently known and used than non-reimbursed cares (dieticians and psychologists). Considering perceptions, main causes of GPs' difficulties were family exhaustion (84,61%) and caregivers' distress (74,35%). The lack of time (87,17%) and pay (66,66%) were two more important constraints than lack of training (33,33%).
Conclusions: Supportive care in cancer is complex and concern several areas. It seems to represent a weak proportion of GPs' practice and educational priorities. However, GPs claimed to perform a regular assessment of the most frequent symptoms associated with cancer and to prescribe reimbursed paramedical aids.

P-485
Geriatric assessment and frailty score predicts clinical outcome of transcatheter aortic valve implantation

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Introduction: Established risk scores prior to cardiac intervention have limitations in the elderly. Some patients may be too frail for endovascular intervention and will benefit more from a palliative approach. Our aim was, based on comprehensive geriatric assessment, to create a frailty score for risk prediction prior to Transcatheter Aortic Valve Implantation (TAVI).
Methods: We performed a prospective observational study in elderly patients (>70 years) accepted for TAVI at a university hospital during 2011–2015. All patients were evaluated by the Heart Team and declined for open heart surgery. Prior to the procedure MMSE, SOF, NEADL, HADS and Charlson Comorbidity Index were performed. Based on expert opinions we developed a frailty score. Primary outcome was 1- and 2-year mortality. Secondary outcome was disabling stroke.
Results: 147 patients, mean age 84 (SD 4) years, whereof 80 (54%) women with severe and symptomatic aortic stenosis were included. All patients completed the MMSE and SOF. NEADL questionnaire was completed in 83% and the HADS questionnaire in 95%. Mean MMSE was 26 (SD 3) points, Charlson co-morbidity score 3 (SD 1), logistic EuroSCORE 17 (SD 9) %. All-cause mortality at 1- and 2-year was 8% and 11%, respectively. Within the first 6 months 3% suffered a disabling stroke. Calculation of a frailty score is in progress and will be presented.
Conclusion: Mortality and morbidity after TAVI in the present study is unexpectedly low. We will explore and present a frailty score to identify patients that may not benefit from TAVI.

P-486
Hip fractures in Lithuanian residents aged 80 years and over

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Objective: The aim of this study was to analyze epidemiological data of hip fractures in persons aged 80 years and over.
Methods: A retrospective study was performed on Lithuanian residents aged 80 and over, who sustained primary hip fracture. Data were collected from patient charts at 47 orthopaedic-traumatology inpatient departments. Treatment was categorised into 3 types: osteosynthesis (screws, plates, and intramedullary nails), arthroplasty (subtotal or total), and conservative treatment. The outcomes were rehabilitation, long-term care hospital, discharge home, transfer to another department, or death.
Results: In 2001–2010, a total of 10 093 hip fractures occurred in Lithuanian residents aged 80 years or more, 83.5% of them were females. Overall male:female ratio was 1:5, the highest ratio was found in 90–100 years age group (1:5.6). Age-standardised fracture rate was 729.2/100.000 (95% CI: 694.2–764.1) in men and 1246.3/100.000 (95% CI: 1219.7–1273.0) in women. Low energy traumas caused 93% of fractures. Mean duration of hospitalization was 12.2 days. Of all patients, 68.3% were treated using osteosynthesis, 19.5% – arthroplasty, and 12.2% were treated conservatively. Main outcomes were: discharge home (36.1%) and rehabilitation (34.4%). Death occurred in 2.8% of all cases (73% in women), and increased from 2.3% in 80–85 to 8.2% in 100+ years age group.
Conclusions: In 2001–2010, in Lithuanian residents aged over 80 years, the age-standardised hip fracture incidence was 729.2/100.000 in men and 1246.3/100.000 in women. Hip fractures were mostly caused by low energy trauma. Deadly outcome grew along with patient age.

P-487
Histopathology and prognostic outcome of endovascular thrombectomy for the elderly stroke patients

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Introduction: Endovascular thrombectomy (EVT) for intracranial

thrombotic occlusion is performed for stroke patients regardless of ages. Histology of retrieved thrombi from cerebral arteries by catheter can provide useful information.
Methods: We histopathologically analyzed obtained thrombi by EVT from the consecutive 74 acute stroke patients (women 48.6%, 70 to 96 years) from January 2011 to March 2017. The average age was 80.4 years and the median age was 81.5 years. We divided the patients into 2 age groups, 37 seventies (70 to 80 years) as S group and 37 eighties and over (81 to 96 years) as E group, to compare the obtained thrombi and outcome between the 2 groups. Among the enrolled patients, 27 (73.0%) showed atrial fibrillation in both S group and E group.
Results: Successful reperfusion resulted in excellent prognosis revealed 51.4% in S group and 24.3% in E group ($p<0.01$). The fatal cases were recognized in 2 patients in each group respectively (5.4%). The remaining cases showed fair prognosis requiring continuous therapy. Obtained platelets and fibrin thrombi suspected to be cardiogenic emboli were found in 86.5% of S group and in 79.5% of E group. Atheromatous gruel which was suggested as athero-thrombi by the plaque rupture of local cerebral arteries was observed in 5 cases (13.5%) in S group and 3 (8.1%) in E group.
Conclusion: EVT can be effective for good outcome of stroke events. Successful EVT is sufficient procedure for even in the very elderly acute stroke patients to prevent poor prognosis.

P-488
Hyperuricemia and its determinants in elderly patients with persistent atrial fibrillation

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Introduction: Recent evidence suggests that hyperuricemia could be associated to atrial fibrillation (AF) development and to its relapses after specific interventions. Aim of this study was to evaluate the predictors of hyperuricemia in a population of elderly patients undergoing external cardioversion (ECV) of a persistent form of the arrhythmia.
Methods: In all consecutive subjects we studied neurocognitive, mood and functional profile. Arterial stiffness (AS) was measured using the Cardio-Ankle Vascular Index (CAVI). Hyperuricemic (HU) patients were identified by concentrations of uric acid (UA) $\geq$6.5 mg/dL or by present therapy with allopurinol, Controls (C) had normal UA levels.
Results: We evaluated 57 subjects (age: 77±7 years; women: 33.9%; September 2015 - December 2016). Hypertension and chronic heart failure (CHF) were the main causes of the arrhythmia (33.3% and 54.4% of patients, respectively). HU subjects represented 40.4% of the whole population (UA – HU: 6.8±1.5 vs. C: 4.9±0.9 mg/dL, $p<0.001$). ECV effectiveness did not differ by HU status (HU: 100 vs. C: 88.2%, p=0.140). Logistic regression analysis showed that the presence of CHF (p=0.022) and creatinine concentrations (p=0.001) were directly associated to the HU condition. Conversely, a greater arterial stiffness characterized C subjects (p=0.009).
Conclusions: In elderly patients with persistent AF, hyperuricemia is common and it seems associated to CHF and renal function. Further studies are needed to clarify the inverse relation between the condition and AS, and to evaluate the existence of a link between UA and AF relapses.

P-489
Hypothermic patients admitted to a tertiary center in a five year period

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Introduction: Hypothermia can be caused by various factors including cold exposure, infection or endocrine abnormalities. Although hypothermia may be associated with an increased risk of mortality, its influence on the severity and outcome of critically ill patients is not well understood.
Methods: Patients aged 65 or more years admitted with hypothermia from 2012 to 2016 to a tertiary center in Portugal were included in the study. Patient characteristics, physiological data and mortality were assessed.
Results: In this period 151 patients were admitted with hypothermia: mostly women (64%), mean age 85 years. Comorbidities were common: 85% hypertension, 56% congestive heart failure, 31% chronic kidney disease and 26% diabetes. According to Katz Index of Independence in Activities of Daily Living, 52% were evaluated as very dependent. At admission mean temperature was 31.8°C, mean serum lactate was 1.9 mmol/L and mean pH was 7.33. Most patients had central nervous system dysfunction (85%) and cardiovascular dysfunction (60%). Regarding the cause of hypothermia, 67% had infection, 26% had endocrine abnormalities and 3% had cold exposure. Mean hospital length of stay was 10 days and hospital mortality was 30%. Lower temperatures were associated with lower pH ($<$28°C: 7.20 vs $\geq$32°C: 7.39) and a higher incidence of cardiovascular dysfunction (31.2 vs 32.8°C) and hematologic dysfunction (29.5 vs 32.0), $p<0.05$.
Conclusions: The elderly are at increased risk of developing hypothermia and its complications due to decreased physiologic reserve and chronic diseases that impair compensatory responses. Therefore, they should be urgently assessed if found to be hypothermic.

P-490
Impact of geriatric assessment for the therapeutic decision-making of breast cancer: results of a French survey. AFSOS* and SOFOG collaborative work**

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Background: Cancer management in the elderly is often considered as suboptimal and heterogeneous. Data are needed to understand decision making processes in this population.
Methods: A survey was performed in France to describe decision making in gynaecologic patients over 70. It followed a three steps method: (1) 101 representative physicians questioned about treatment-decision criteria; (2) simplified individual data were collected as well as (3) detailed data patients receiving chemotherapy. This analysis refers to breast cancer subgroup of patients.
Results: Main decision criteria were performance status, comorbidities and renal function. In adjuvant setting, the main concern was life expectancy, whereas it was quality of life in metastatic setting. Of the 631 patients entered in the simplified analysis, 41% had been evaluated by a geriatrician, 67% received chemotherapy. In the detailed analysis, patients older than 75 were more likely to receive a monochemotherapy and to be treated with weekly/divided dose. In adjuvant setting, respectively 19%, 55% and 26% of the patients were treated with regimen validated in the elderly, validated in a younger population and not validated. A G-CSF was prescribed in

48% of the patients, as primary prophylaxis in 78% and in 41% of patients with a risk of febrile neutropenia <10%.
Conclusion: Geriatric covariates become an increasing concern in the decision-making process. This survey also suggests an insufficient use of validated chemotherapy regimens. To date, age remains a risk factor for heterogeneity in oncologic practice justifying a persistent effort for elaborating and disclosing specific recommendations.

P-491
Interdisciplinary assessment in elderly patients with severe aortic stenosis: Decision making process for transcatheter aortic valve implantation

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Aim: To evaluate transcatheter aortic valve implantation (TAVI) indication by an interdisciplinary team.
Methods: Thirty patients (50% women) with severe aortic stenosis were prospectively evaluated by an interdisciplinary team (clinical cardiologist, image specialist, invasive cardiologist, anesthesiologist, nurse and geriatrician). A geriatric assessment was performed: previous living situation, functional status [Barthel (BI) and Lawton index (LI)], walking speed (m/s), cognitive status [Mini-Mental Examination of Folstein (MMSE)], emotional status (GDS Yesavage), nutritional status [Mini-Nutritional Assessment abbreviated (MNA)], comorbidity (Charlson index) and number of geriatric syndromes.
Results: Mean age: 82.2±6.8. Twenty-two (73.3%) lived with family. TAVI was indicated in 17 patients (56.6%) and refused in 13 (3 asymptomatic, 2 lung cancer, 1 not attending controls, 1 high comorbidity, 3 no benefits for other cardiologic causes and 3 frailty). Mean values of geriatric assessment parameters in the 17 patients who received TAVI treatment were: age: 81.6±7.1; LI: 5.0±1.8; BI: 97.0±6.4; walking speed: 0.6±0.2; MMSE: 27.1±2.9; GDS Yesavage: 1.4±1.4; MNA abbreviated: 12.3±1.8; Charslon: 2.6±1.2; number of geriatric syndromes: 2.2±1.2 and in the 3 patients who in which TAVI was refused because of frailty: 82±8.8 (p=0.939); 2.0±1 (p=0.013); 74.6±19.2 (p<0.001); 0.4±0.1 (p=0.149); 20.6±2.3 (p<0.001); 2.3±2.0 (p=0.341); 11.6±2.3 (p=0.563); 1.6±1.1 (p=0.229) and 5.6±0.5 (p<0.001), respectively.
Conclusion: 1. Half of the patients evaluated by interdisciplinary team were considered appropriate for TAVI. 2. There were several causes for the exclusion of this therapeutic option. 3. Patients who were excluded due to frailty had significantly worse functional and cognitive status, and a higher frequency of geriatric syndromes.

P-492
Masked hypertension in geriatric age: an underdiagnosed problem associated with end organ damage

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Introduction: Masked hypertension (MH) describes the state that blood pressure values are within normal ranges when recorded by office measurements but the average daytime blood pressure, mean blood pressure at night or the 24-hours average blood pressure values are above the normal range when recorded by ambulatory measurements. The prevalence of masked hypertension in geriatric age is not known. It is also a question whether masked hypertension leads to end organ damage in the early stages. The aim of this study is to investigate the possible associations between masked hypertension and end organ damage in geriatric population.
Methods: One hundred-two patients who were admitted to the Geriatric Medicine outpatient clinic of Hacettepe University, Faculty of Medicine, Department of Internal Medicine consecutively were included in the study. Patients who have been diagnosed with hypertension or dementia previously or using any antihypertensive medication were excluded. All patients underwent ambulatory blood pressure measurement procedures and values were recorded as three separate parameters, which were average daytime blood pressure, mean blood pressure at night and the 24-hours average blood pressure. Comprehensive geriatric assessment tests and neuropsychological tests were administered to all patients. The diagnosis of masked hypertension was based on the definitions in the 2013 guideline of the European Society of Cardiology (ESC).
Results: As a result of the analysis, 44 of 102 patients (43%) were diagnosed with masked hypertension. Median MMSE scores were 28 (18–30) in patients with masked hypertension and 29 (18–30) in normotensive group. Patients with masked hypertension had significantly lower scores on Mini-Mental State Examination (MMSE) test (p=0.011). The albumin/creatinine ratio in the masked hypertensive group was 9.61 mg/gr and in the group with normal blood pressure values, it was 7.12 mg/gr (p=0,021). In addition, left ventricular mass index (LVMI), which is one of the parameters showing the end organ damage and reflects the negative effect of hypertension on the heart, was found to be higher in the masked hypertension group than in the normal group. Mean LVMI scores were 107,76±16,37 in patients with masked hypertension and 100,39±19,32 in normotensive group. These differences in the ratio of spot urinary albumin/creatinine ratio and left ventricular mass index, which are the end organ damage parameter, were also statistically significant (p=0.021; p=0.046; respectively).
Conclusion: This study shows that geriatric patients with masked hypertension, compared to normotensive patients have decreased cognitive functions. In addition, urinary albumin excretion and left ventricular hypertrophy which are the parameters of end-organ damage caused by hypertension, were significantly higher in masked hypertension patients. These results show that masked hypertension may cause end organ damage and should not be overlooked in geriatric patients.

P-493
Monoclonal gammapathies in elderly patients

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Introduction: Monoclonal gammopathies (MG) are common in the general population. The objective of this work is to describe clinical, biological characteristics and etiologies of MG in elderly patients.
Materials and methods: A retrospective study was performed in an internal medicine department over a period of ten years. All files patients with MG were studied (114). Clinical, biological and etiological features of patients aged over 65 years were analyzed and compared with younger patients.

Results: Forty-nine elderly patients with MG were studied; 27 men and 22 women. Their median age was 73.4±5.55 years. Mean level of monoclonal component was 33.7 g/l. GM isotypes were IgG (n=24), IgA (n=16) and IgM (n=4). Light chains were lambda or kappa, each one in 50% of patients. GM was frequently revealed with bone pain (16 cases). Poor general state was noted in 27 patients. Renal insufficiency and hypercalcemia were respectively observed in 27 and 23 patients. Anemia and thrombopenia was respectively found in 39 and 10 patients. There were no differences in clinical and biological data when compared to young patients. GM was related to multiple myeloma (n=33), lymphoma (n=2), cryoglobulinemia (n=2) and amyloidosis (n=2). Gammapathy of unknown significance was diagnosed in 6 patients. There were no differences regarding GM etiologies when compared to patients under 65 years old.
Conclusion: MG are common in clinical practice and specially in elderdy. Etiological study is a real challenge for physicians. in our study, their spectrum wasn't different in elderly patients.

P-494
Mortality and quality of life in elderly patients on dialysis in New Zealand: Results from the Dialysis Outcomes in the >65s Study (DOS65+)

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Background: New Zealand (NZ), and indeed the world, has a growing population of elderly patients with end-stage renal failure (ESRF) requiring dialysis. Physicians and patients making decisions around dialysis require information on the prognosis and quality of life (QoL) associated with all available options. However, there is limited evidence available on dialysis outcomes in the elderly, particularly QoL.
Methods: The Dialysis Outcomes in the >65s Study (DOS65+) is a prospective longitudinal cohort study of patients >65 with ESRF. This is a cross-sectional analysis of mortality and QoL outcomes at baseline and 2 years.
Results: We found that mortality nor QoL vary with dialysis vintage, modality or location of treatment, whereas high burdens of co-morbidities and ESRF-related symptoms were associated with reduced QoL. Increasing age was found to be associated with mortality, however there was no correlation between age and QoL on dialysis. Contrary to previous studies on other diseases, we have shown no significant differences in mortality or QoL in ESRF between the various ethnicities in NZ. Interestingly, socioeconomic factors including living with others, family involvement and sense of community contribute significantly to QoL in our patients, and lack of family involvement was also significantly related to mortality.
Conclusions: Our findings are consistent with the growing body of evidence around dialysis outcomes in the elderly, highlighting several key variables contributing to survival and QoL on dialysis which should be considered by doctors and patients when making decisions about the management of ESRF.

P-495
Multiple osteolytic lesions due to Primary Bone Lymphoma (PBL)

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Background: PBL is a rare entity. Usually is of Non-Hodgkin Lymphoma (NHL) type and of diffuse Large B-cell Lymphoma (DLBCL) subtype. It represents <1% of all NHLs'. Even rarer is the presence of multiple osteolytic lesions in the context of PBL.
Objective: To describe a 74 years-old female patient with PBL and multiple osteolytic lesions.
Case presentation: Patient was admitted for evaluation of an osteolytic lesion found in a plain radiography of the right ankle. She experienced difficulty in walking for one month. Her medical history was unremarkable. Her blood test, basal metabolic panel and tumor markers were normal. Magnetic resonance imaging (MRI) of the right ankle demonstrated a lytic lesion in the right fibula, with permeative extension in the surrounding tissues and multiple small osteolytic lesions in the fibula and the leg. Bone scintigraphy with technetium-99 showed high accumulation in multiple sites especially at the lower limbs and the pelvis. Bone marrow aspiration and biopsy were normal and Computed Tomography (CT) scans of the chest and the abdomen revealed no evidence of distal nodal or extranodal tissue involvement. She underwent a fine-needle aspiration biopsy of the lesion. The histopathological examination and immunohistochemistry revealed NHL, of DLBCL subtype and the patient was referred to the Hematology Department for specific treatment.
Conclusion: PBL should be considered in the differential diagnosis of multifocal osteolytic lesions. Timely diagnosis and treatment is mandatory as multifocal bone DLBCL patients exhibit a better prognosis compared to patients with other extranodal DLBCLs'.

P-496
Myelodysplastic syndromes and giant cell arteritis in the elderly: A non-fortuitous association that geriatricians need to know

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Introduction: The association between myelodysplastic syndrome (MDS) and autoimmune disease is well recognized in the literature, but large vessel vasculitis associated to MDS are really uncommon. Giant Cell Arteritis (GCA) occurring in the setting of MDS is important to recognize from the geriatricians in regard to prognosis and treatment options.
Methods and results: We present a rare case of a 79-year-old woman hospitalized for asthenia, weight loss, headache and two previous episodes of transient diplopia. Laboratory data revealed a major inflammatory syndrome (C-reactive protein (CRP): 204 mg/L) and an isolated lymphopenia at 780/mm^3; the temporal artery biopsy confirmed GCA. Urgent corticosteroid therapy has been started (5 methylprednisolone bolus followed by 1 mg/kg/day of prednisone) and medical condition improved with a decrease of CRP (25 mg/L). Three-months later, the patient remained steroid-dependent (20 mg per day of prednisone) with the reappearance of asthenia and a CRP level at 93 mg/L. Laboratory data revealed pancytopenia and the emergence of circulating blasts justifying an urgent bone marrow aspiration leading to the diagnosis of MDS. Unfortunately, one month later, a new bone marrow aspira-

tion revealed an acute myeloid leukemia and chemotherapy was initiated.
Conclusion: In elderly patients with GCA, a poor response to steroids or steroid dependence should suggest the presence of associated MDS, particularly in presence of cytopenia. The association of MDS with vasculitis appears to predict adverse outcome, and may in particular precede transformation to overt AML. It seems judicious to treat MDS quickly, considering vasculitis as a paraneoplastic syndrome.

P-497
New assessment of clinical signs of subclinical hypothyroidism associated with aging

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Background: Subclinical hypothyroidism (SCH) is defined as the association of normal T4 and a high TSH. Two phenomena may have an impact on this syndrome outlines: the improvement of TSH dosing and the age-related variations of TSH bioactivity.
Methods: Eleven classical hypothyroidism clinical signs (hCS) were prospectively collected in a multicentric trial. We tested in a "young" vs "older" population (<60 vs ≥ 60 years old) SCH prevalence with a recent dosing test of TSH, T3/T4 ratios and the presence of hCS in patients with SCH vs euthyroidism.
Results: From 2012 to 2014, 807 "young" and 531 "older" individuals were included. The rate of TSH was higher in the "older" population (2.36mUI/L vs 2.14mUI/L, $p<0.05$). The T3/T4 ratio was a little lower (0.26 vs 0.27, $p<0.01$), illustrating a probable loss of TSH bioactivity. Considering the presence of hCS in the "older" compared to the "young" group, a paradoxical higher prevalence was shown in the euthyroid population (1.9 vs 1.6, $p<0.01$) but not in the SCH population (2.3 vs 2.6, p=0.41). The percentage of subjects with 3 or more signs increased when TSH becomes >4.05mIU/L (42.6% vs 25.0%) for young people but not in the elderly population (34.4% vs 33.9%). Only 3 hCS were related to SCH in "older" subjects.
Conclusion: While mean TSH and SCH prevalence are higher in the older population, the lower T3/T4 ratio and fewer hCS lead to consider a probable loss of bioactivity and perhaps the need to reevaluate the TSH reference range in that population.

P-498
Observational prospective cohort of elderly with hypervitaminosis B12: An important cancer prevalence

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Few studies were performed but suggest a link between cancers andhypervitaminosis B12. The aim of this study was to analyze the cancer prevalence of elderly with hypervitaminosis B12. An observational cohort study was conducted from November 2015 to May 2016 including all the patients >70 years with vitaminosis B12 >700 pg/ml in a referent geriatric center. The presence or malignancies discovered during the hospitalization was reported. Characteristics of cancer and socio-demographic data were also collected. The realization of complementary exams during the hospitalization was mentioned. A total of 131 patients were included with 63% (n=82) women and mean age was 86 years (SD 5.7 years). The average vitamin B12 was 1267 pg/ml. Among the 131 patients, 25% (n=33) had a cancer identified by histology, 16% (n=21) highly suspicious images of neoplasms and 17% (n=22) had lesions suspected to be due to metastatic disease. About 5% (n=6) of all hypervitaminosis B12 result from hematological malignancies. Among the solid cancers, digestive (33.3%) and lung (16.7%) cancers were most frequent. The vitamin B12 levels was not significantly different between patients with neoplasia and the rest of the study population (1269 vs. 1264 pg/ml, p=0.965). Among 25% patients died, 43% are with known or suspected malignancies.With a quarter of patients dying during hospitalization, it also appears as a possible prognostic factor of mortality. Future research is warranted to complete these result establish the value of systematized clinical and paraclinical assessments in case of hypervitaminosis B12.

P-499
Overall survival in elderly patients with colorectal cancer: a population-based study in the Caribbean

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Background: Population-based Cancer registries (PBCR) play an important role in cancer surveillance and research. The aim of this study was to examine overall survival in elderly patients with colorectal cancer (CRC) by analysing data from the Martinique PBCR between 1993 and 2012.
Methods: The log-rank test was used to assess the statistical differences of the survival curves by each categorical variable: age at diagnosis, sex, histology, zone of residence, subsite, stage at diagnosis, and chemotherapy in incident. A multivariable Cox model was performed to identify independent prognostic factors for overall survival in elderly patients with colorectal cancer.
Results: Among 2230 patients included in the study, 60.8% were aged ≥ 65 years; mean age at diagnosis of these patients was 75.7±7.2 years. For the period 2008–2012, 532 elderly patients were analysed; mean age of those receiving chemotherapy was 73.0±0.4 versus 77.9±0.4 years for those not receiving chemotherapy ($p<0.0001$). Stage at diagnosis was evaluated in 87.8% (467/532) of patients; 63.0% (294/467) had stage III-IV and 49.3% of these patients (145/294) received chemotherapy. Chemotherapy was less frequently prescribed in patients aged 75–84 and ≥ 85 years as compared to those aged 65–74 years (41.1% and 15.0% versus 64.6% respectively; $p<0.0001$). Stage III-IV at diagnosis (HR=5.25; 3.70–7.45; $p<0.0001$), and not receiving chemotherapy (HR=3.05; 2.23–4.16; $p<0.0001$), were independent prognostic factors for overall survival.
Conclusion: Our study highlights the role of PBCR in evaluating cancer survival and patterns of care in elderly people of the French West-Indies. Chemotherapy was less frequently prescribed among the elderly.

P-500
Pharyngeal dilator muscle recruitment during increasing respiratory efforts in awake young and older healthy subjects

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Background: Pharyngeal patency depends on interaction between peri-pharyngeal muscles. Older subjects are known to be prone

to obstructive sleep apnea compared to younger subjects. We hypothesized that recruitment of dilator muscles during increasing respiratory efforts differs between young and older healthy subjects.
Methods: Esophageal pressure (Pes), airflow and EMG of the genioglossus (GG) and other per-pharyngeal muscles (non-GG: styloglossus, geniohyoid, sternocleidomastoid and sternohyoid, 3 EMGs/subject) were recorded in 5 young (21.2±0.4yrs) and 7 older healthy subjects (68.6±8.7yrs), all validated as non-apneic by full night polysomnography. Data recorded during wakefulness, when subjects produced a range of negative Pes levels while breathing through a partially obstructed inspiratory port, was used to plot individual peak EMG/Pes slopes.
Results: Peak inspiratory EMG of all muscles increased with increasing respiratory efforts (larger negative Pes). The increase in GG and non-GG EMGs with increasing negative Pes were significantly steeper in the young as compared to the older subjects: −0.95±0.37 vs. −0.47±0.29 ($p<0.05$) and −0.87±0.31 vs. −0.40±0.24 ($p<0.01$) EMG%max/cmH2O for the GG and non-GG muscles, respectively.
Conclusions: With increasing respiratory efforts, older healthy men recruit dilator muscles significantly less than young men, suggesting age-related remodeling of neuromuscular drive. In addition to age-related anatomic-structural changes, alterations in control of breathing may contribute to the higher prevalence of sleep apnea in older subjects.

P-501
Primary cutaneous small vessel vasculitis. A case report

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Objective: We present the case of a 77-year-old woman admitted for blistered necrohemorrhagic cutaneous lesions in lower limbs.
Methods: The patient referred edema on her legs, with blistered purpuronecrohemorrhagic lesions. Initially up to her knees, they extended to the back side of both thighs and right hemithorax. In the emergency room she was diagnosed with cellulites and prescribed amoxicillin-clavulanic, but returned again for high temperature, dysuria and intense throbbing leg pain. Background: hypertension, lumbar canal stenosis, secondary hypothyroidism, cataract surgery, and appendectomy. Baseline status: Barthel 80/100, without cognitive impairment and lived alone.
Results: Physical examination revealed both heart failure data consisting on thigh edema that required intravenous deplective treatment and urinary retention. Attending to the lower limbs, she presentend confluent papules and plaques as well as vesicles and blisters up to 5cm diameter from feet to buttocks, and also along her back and right hemithorax. Steroid treatment with prednisone 50 mg and local cures with silver sulfadiazine were recommended by dermatology a on suspicion of vasculitis, and antibiotic treatment with meropenem was also associated due to necrotic ulcer related febrile syndrome. Cutaneous biopsia was informed as leukocytoclastic vasculitis of superficial vessels, without deposits of IgA, IgM and IgG.
Conclusion: This small vessel cutaneous disorder is mostly a self-limited condition in terms of duration and clinical involvement. A cutaneous biopsy and thorough initial diferential diagnosis are necessary, as its clinical features can resemble multiple disorders.

P-502
Relationship between the severity of cerebral white matter hyperintensities and sympathetic nervous activity in the elderly

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Introduction: Cerebral white matter hyperintensities (WMH), visualized on brain magnetic resonance imaging, represent an abnormality related to the development of geriatric syndrome and vascular events. Studies have suggested that low sympathetic nervous activity (SNA) might be associated with physical and cognitive dysfunction, leading to increased mortality in the elderly. In this study, we investigated the relationship between the severity of WMH and the SNA, measured by the heart rate variability (HRV).
Methods: We performed a cross-sectional study of 39 elderly patients (79.4±7.0 years old, 14 males and 25 females). Holter electrocardiogram (30 minutes) was recorded, thereafter, low frequency/high frequency (LF/HF), index of SNA, and other indices of the HRV were measured. In regard to the severity of the WMH, periventricular hyperintensities (PVH) and deep white matter hyperintensities (DWMH) were semi-quantitatively rated according to the previous method.
Results: The LF/HF was significantly lower in patients with apparent DWMH than those without DWMH. From the univariate regression analysis, the LF/HF showed significant negative correlations with the total and regional PVH, as well as DWMH. Multiple regression analysis showed that the negative associations remained significant between the LF/HF and DWMH (total, temporal, occipital area). Furthermore, fall risk index, one of the important geriatric syndrome, showed significant correlations with the LF/HF, total and the occipital DWMH.
Conclusions: The severity of DWMH was associated with the LF/HF and the fall risk, one of the important geriatric syndrome, suggesting that WMH, sympathetic nervous dysfunction, and the geriatric syndrome are interrelated.

P-503
Sinus rhythm restoration determines an improvement of physical performance in elderly patients with persistent atrial fibrillation

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Introduction: Atrial fibrillation (AF) is the most frequent arrhythmia of the elderly. Some evidence suggests that AF is associated with a faster physical functional decline. Aim of this study was to evaluate the impact of sinus rhythm (SR) restoration on physical performance of aged patients with persistent AF.
Methods: We studied all consecutive subjects undergoing external cardioversion (ECV) of the arrhythmia between March 2015 and August 2016. At baseline (BL) and at the follow-up (FU), patients were assessed using the Short Physical Performance Battery (SPPB).
Results: We evaluated 46 patients (age: 77±7 years; men: 65.2%; MMSE: 27.6±3.0; GDS: 4.0±2.5). Hypertension was the most frequent cause of AF (41.3%). At BL, median value of SPPB was 10/12 (33th-66th percentile: 8–11) and it was inversely associated with the CHA2DS2-VASc (p=0.003) and the GDS (p=0.001) scores. ECV was effective in 91.3% of patients. At FU (median: 141 days), SR was observed in 24/46 patients (52.2%), and it was associated with a significant improvement of SPPB (BL: 9.6±2.3 vs. FU: 10.9±1.6; p=0.002), whilst no changes were observed in patients with AF (BL: 8.6±2.2 vs. FU: 9.2±2.4; p=0.130). At multivariate analysis, the presence of SR, when compared to AF, was associated with an improvement of SPPB at FU (+1.1±0.4 points; p=0.018).
Conclusions: In elderly patients with persistent AF, SR restoration seems to be associated with an improvement of physical functioning. If these results will be confirmed, a rhythm-control strategy could be preferred in aged patients at risk of disability development.

P-504
Submandibular mass in the elderly – an unusual diagnosis

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Introduction: The differential diagnosis of a submandibular mass is challenging in all ages, especially in the frail elder that does not complain, and always includes neoplasia and infections. Pertinence of invasive exams is doubtful and concerning treatment expectations, palliative care must be considered.
Case report: An 88-year-old female patient, bedridden, with dementia and hypertension, was admitted with a 3-month history of prostration and on examination a right submandibular mass. Exhaustive studies showed no elevated inflammatory parameters (ERS 27 mm/h), negative viral serologies (HIV, HCV, CMV, EBV) and hemocultures. Complete ear nose and throat with nasoendoscopic examination was performed. Contrast enhanced CT-scan showed necrotic lymph nodes, fine-needle aspiration biopsy showed pyocites, panniculitis with neutrophilic and histiocitary infiltration, the gram was negative. There was no response to 2 courses of antibiotherapy, with persistence of the mass. The differential diagnosis of the subacute asymptomatic neck mass, was between metastatic neoplasia and tuberculosis.Further exams showed focal lesion on right mammary gland and biopsy triple positive invasive carcinoma. The cultural exam on the 52nd day, showed "mycobacterium tuberculosis". As such she started tuberculostatics and tamoxifen.
Discussion: Tuberculosis in the fragile elderly remains a frequent diagnosis as the inherent imunosenescence contributes to reactivation of inactive mycobacteria from previous contacts. Initial clinical presentation of tuberculosis as a cold abcess of the submandibular gland is a rare clinical entity, especially as there was no evidence of concomitant tuberculosis elsewhere in the body, in this case, the presence of neoplasia contributed to the reactivation.

P-505
The clinical characteristics and the selection of medical services in the subjects with gastric cancers according to the age

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Introduction: Gastric cancer is the fifth leading cause of cancer and the third leading cause of death from cancer making up 7% of cases and 9% of deaths in 2012. Behavioral patterns of subjects with gastric cancer are not unknown in terms of the selection of medical institution. We investigated the clinical characteristics of the subjects and the selection of medical services according to the age.
Methods: From January 2007 to December 2016, medical records of a total of 248 subjects with gastric cancer were retrospectively reviewed in two groups as aged younger than 40 years old and aged over 65 years old. The clinical findings were compared between the two groups.
Results: The mean age of the two groups were 35.8±3.6 yr old and 72.7±6.5 yr old, respectively. In old group, male was more frequent (67.7% vs 49.6%, p=0.04). Atrophic change (50.5% vs 7.3%, $p<0.01$) and intestinal metaplasia (48.1% vs 11.6%, $p<0.01$) were also more frequently observed. Moreover, cancer in the old group was more frequently located at lower body of the stomach (75.6% vs 63.0%, p=0.046) and treated by endoscopic submucosal dissection (27.7% vs 1.4%, $p<0.01$). Location at mid body (11.0% vs 25.9%, $p<0.01$) and surgical treatment (45.1% vs 63.5%, $p<0.01$) were less frequently observed in old group. However, transfer to other hospital (19.5% vs 22.6%, p=0.64) and proportion of EGC (55.6% vs 47.8%, p=0.25) were not different between two groups.
Conclusions: Although clinical characteristics of stomach cancer in the old group were different from those of the young group, there was no difference in terms of the referral to other hospital between two groups.

P-506
The relationships between health-related quality of life and well-being in women aged 60–74 years

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Objective: To investigate the relationships between health-related quality of life and well-being in elderly women aged 60–74 years.
Subjects and methods: This cross-sectional study was performed on community dwelling women aged 60–74 years. Exclusion criteria were musculoskeletal or nervous system diseases or conditions that could restrict the mobility. Data was collected by direct interviewing and recording the answers on a survey which consisted of sociodemographic questions and three questionnaires. Health-related quality of life was measured using European Quality of Life Five Dimensions (EQ-5D), well-being – Control, Autonomy, Pleasure, and Self-realization (CASP-19) and Satisfaction with Life Scale (SWLS) questionnaires. Correlations were determined using Spearman correlation coefficient.
Results: The study was performed on 66 women; their mean age was 67.06±3.37 years. It was found that 9 (13.6%) women were single, 24 (36.4%) married, 17 (25.8%) widowed, and 11 (16.7%) divorced. Analyzing education level we found that 6 (9.1%) women had secondary (secondary or vocational school), 5 (7.6%) post-secondary (junior college), 8 (12.1%) vocational (institute), 4 (6.1%) non-university higher (college) and 39 (59.1%) higher university education. Our findings suggest that EQ-5D score statistically significantly ($p<0.001$) moderately positively correlated with: total CASP-19 score (r=0.57) and separately with each of CASP-19 main domains scores – control (r=0.68), autonomy (r=0.63), pleasure (r=0.48), and self-realization (r=0.66). The data have revealed positive moderate correlation between EQ-5D and SWLS scores (r=0.42, $p<0.001$).
Conclusion: Our study showed the positive associations between health-related quality of life and well-being: EQ-5D score moderately correlated with CASP-19 and with SWLS scores.

P-507
Unprovoked pulmonary embolism in older adults: incidence and prognosis

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Introduction: The incidence of unprovoked pulmonary embolism (UPE) in older adults has been seldom studied, and its prognosis has never been studied, to the best of our knowledge.
Methods: A historical prospective study. The medical charts of all older adults (aged 70 years or more) with pulmonary embolism (PE) that were admitted to a tertiary medical center between 2010 and 2012 were reviewed. Patients were divided into three groups: UPE, provoked PE (PPE), and malignancy-associated PE (MAPE). PPE and UPE patients were those with and without obvious causes for PE,

respectively. MAPE patients were those with an active malignancy. The all-cause 1-year cumulative survival rates following admission were compared between the groups.
Results: The final cohort included 249 patients with PE: 161 (64.7%) were women; the mean age was 79.8±5.7 years. Overall, 36 (14.5%) patients had UPE, 81 (32.5%) patients had MAPE, and 132 (53.0%) patients had PPE. Overall, 30 (12.0%) patients died during their hospitalization, 76 (30.5%) patients died six months later, and 101 (40.6%) patients died within one year of admission. Relative to PPE and MAPE patients, the cumulative survival rate was significantly higher in UPE patients at every time point within one year of admission ($p<0.05$ and $p<0.0001$, respectively). Regression analysis showed that UPE was independently associated with reduced 1-year mortality (odds ratio 0.3, 95% confidence interval 0.1–1.0).
Conclusions: UPE in older adults is not uncommon, and its prognosis is better than PPE and MAPE in this population.

P-508
Using a multidimensional prognostic index (MPI) based on comprehensive geriatric assessment (CGA) to predict mortality in elderly undergoing transcatheter aortic valve implantation

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Background: Selection of appropriate elderly who can benefit from transcatheter aortic valve implantation (TAVI) is challenging. We evaluated the prognosis of this procedure according to the comprehensive geriatric assessment (CGA) based on the multidimensional prognostic index (MPI).
Methods: Prospective observational monocentric study from January 2013 to December 2015. Consecutive patients aged ≥75 who underwent TAVI and a complete CGA were included. Baseline demographic, geriatric and cardiologic data were collected. CGA was used to calculate the MPI score that is divided in three groups according to the mortality risk. Follow up was performed until December 2016 and mortality rate was assessed at one, six and 12 months.
Results: 116 patients were included. Mean age was 86.2±4.2 years, mean European system for cardiac operative risk evaluation (EuroSCORE) was 19.2±11.3%, mean MPI score was 0.39±0.13. Forty-five (38.8%) patients belonged to MPI-1 group, 68 (58.6%) to MPI-2 group and three to MPI-3 group. MPI score and Euroscore were moderately correlated (Spearman correlation coefficient rs =0.27, p=0.0035). Mortality rate was significantly different between MPI groups at six and 12 months (p=0.040 and p=0.022). Kaplan Meier survival estimates at one year stratified by MPI groups was significantly different (hazard ratio HR =2.83, 95%confidence interval (CI) 1.38–5.82, p=0.004). Among variables retained to perform logistic regression analysis, the score of instrumental activities of daily living appeared the most relevant ($p<0.001$).
Conclusions: This study indicates that CGA based on MPI tool is accurate to predict prognosis in elderly patients undergoing TAVI procedure.

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Using the multidimensional prognostic index to define risk in older patients undergoing a transcatheter aortic valve replacement

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Introduction: The multidimensional prognostic index (MPI) is a valid tool to classify older patients in different settings. We used MPI to describe patients selected for transcatheter aortic valvular replacement (TAVR).
Methods: Single-center, prospective, observational study. Inclusion criteria: older patients in need of an aortic valve replacement with TAVI for severe aortic stenosis. MPI used all domains of geriatric assessment (sociodemographic, functional, nutritional, cognitive, comorbility, number of medicines) to calculate an index that defines three groups according to the mortality risk: MPI-1 (≤0.33, low risk), MPI-2 (0.34–0.65, moderate risk) and MPI-3 ((≥0.66, high mortality risk). Clinical variables were also collected (EuroSCORE and NYHA).
Results: Sixty-three patients were included (mean age 83.0±8.3 years, 57% women). 91.1% were independent for BADL, 72.2% for IADL. Most of them lived with their families (77.8%) and some presented cognitive impairment (20%). 68.9% of them had >2 comorbidities in need of treatment and 54% severe polypharmacy. 95.5% were at risk of malnutrition risk. Mean MPI score was 0.33±0.15 (53.4% of the patients were in MPI-1 group, 42.2% in MPI-2, and only 4.4% in the high risk MPI-3). Mean EuroSCORE was 12.3±7.4%; 65.1% of the patients were in NYHA class III. Only one patient died during follow-up, prognostic value of MPI for mortality in this sample cannot be yet calculated.
Conclusions: Most older patients receiving a TAVI have a low or moderate mortality risk.

Area: Infectious diseases and vaccines

P-510
A case of a chest wall mass in elderly male

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Introduction: Chest wall masses are caused by a spectrum of entities, and its etiology is diverse. A careful history and physical examination can guide the physician to the diagnose. Imaging can help to identify the location, size and composition, and biopsies are often required.
Case report: A 77-year-old man with a history of heart failure, presented with depressive mood, asthenia and anorexia with a weight loss of 20 kg. Concomitantly, presented with a 1 month, painless chest wall mass, with well defined contours, about 6 cm in diameter and elastic consistency. No trauma history. The mammary ultrasound revealed cystic formation that could correspond to a partially organized hematoma. The aspiration cytology revealed necrotic background without viable cells. Computed tomogram of the thorax: liquid collection in the left anterior thoracic wall, associated with irregularity and discontinuity of the 4th left costal cartilage; in the upper left lobe a nodulation with 22 mm, cavitated, that suggest pulmonary tuberculosis. PET: Hipodense masses in the left anterior thoracic wall, with increased FDG uptake. Acid-fast bacilli smear and culture of the sputum were positive, however HIV serology was negative. He started quadruple therapy with tuberculostatics and was discharged on the 26th day after negative smear.

Conclusion: In this case, the indolent onset of unspecific symptoms, made it difficult to diagnose Pulmonary tuberculosis, that was confirmed by positive culture and imaging. It's important to value all the symptoms so we can achieve the diagnosis, and prevent more serious complications.

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A case report of thoracic spondylodiscitis, epidural and paraspinal abscesses without elevated inflammatory markers and fever

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Background: More than 80% of patients with spondylodiscitis, epidural and paraspinal abscesses have elevated CRP and ESR levels and more than 50% present with leukocytosis. Fever may be absent.
Objective: To describe a83 years-old female patient with spondylodiscitis, epidural and paraspinal abscesses who never had neither fever nor any elevated inflammatory markers.
Case presentation: Patient was admitted for evaluation of paraspinal and epidural masses found in MRI, performed to investigate her persistent back pain. Her current diagnosis was spinal metastases. MRI revealed lesions at T6–T7 and T7–T8 discs, T6,T7 and T8 vertebral bodies, epidural and bilateral paraspinal regions. She reported no fever and inflammatory markers were not elevated (WBC: 9.480 K/μl, CRP $<$3.27 mg/l, ESR: 8 mm/h). The patient was referred for needle biopsy and the results revealedpolymorphonuclear infiltration of the tissue specimen. Unfortunately the specimen was not sent for staining and cultivation. The patient denied the repetition of needle aspiration. The Orthopedics and Neurosurgery specialists suggested no operative intervention. Patient received Levofloxacin, Rifampicin and Clindamyciniv, followed by pos administrationafter 6 weeks. Both the effectiveness of treatment and the duration of therapy, had to be based only on MRI findings. After four months, the MRI was unchanged. After eight months, the lesions gradually retreated and finally resolved after 1.5 year of therapy.
Conclusion: Biopsy specimens from epidural and paraspinal masses must be sent for cultivation and staining as they mayconceal infection, even in the absence of fever or elevated inflammatory markers.

P-512
Adult vaccination for pneumococcal disease: A comparison of the national guidelines in Europe

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Background: Pneumococcal disease constitutes a major global health problem. Adults aged 50 years or older and younger adults with specific chronic health conditions are at particular risk for invasive pneumococcal disease, associated with substantial morbidity and mortality. In Europe, two types of vaccines are used in adults for pneumococcal immunization: pneumococcal polysaccharide vaccine (PPV23) and pneumococcal conjugate vaccine (PCV13). The aim of this study is to provide an overview and compare the national guidelines for pneumococcal immunization for adults in Europe.
Methods: In November 2016, national guidelines on pneumococcal vaccination for adults of 27 European countries were obtained by Google search, the website of European Centre for Disease Prevention and Control and contacting public health officials. In our analysis we distinguished between age-based and risk-based guidelines.
Results: We observed great variability regarding age, risk groups, vaccine type and use of boosters. In age-based guidelines, vaccination is mostly recommended in adults aged 65 years or older, using PPV23. A booster is generally not recommended. An upper age limit for vaccination is reported in two countries. In the immunocompromised population, vaccination with both vaccines and administration of a booster is mostly recommended. In the population with chronical health conditions, there is more heterogeneity according vaccine type, sequence and administration of boosters. Asplenia is the only comorbidity for which all countries recommend vaccination.
Conclusions: There is great variability in European pneumococcal vaccination guidelines regarding age, risk groups, vaccine type and boosters. For ease of implementation, European unification of the guidelines is needed.

P-513
Atypical presentation of bacteremia in the elderly is a risk factor for death

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Introduction: The absence of typical signs of infection is described in elderly patients impacting diagnosis and prognosis. The objective of this study was to determine risk factors for mortality of bacteremia in this population and factors associated with atypical presentation.
Material and methods: We conducted an observational prospective study at Bordeaux University Hospital (France) in 2016. All consecutive patients $\geq$75yo with bacteremia were included. Atypical presentation was defined by the absence of temperature $\geq$38.3°C or $<$36°C, chills or severe sepsis. Mortality and functional status were recorded at 1 week (D7) and 3 months (M3)Results: 131 patients (mean age 85yo, 46.6% female) were included. D7 and M3 death rates were 9.2 and 41.4% respectively. In multivariate analysis, at D7, atypical presentation tended to be associated with death (odd ratio (OR)=3.4, 95% confidence interval (CI) (0.9–14), p=0.092). M3-mortality risk factors were: atypical presentation (OR=4.0, 95% CI: (1.3–11), p=0.013), nosocomial infection (OR=5.7, 95% CI: (2.0–15), p=0.001), congestive heart failure (OR=4.9, 95% CI: (1.9–12), p=0.001), and malignancy (OR=3.2, 95% CI: (1.1–9.0), p=0.029). Diabetic patients and those infected by Staphylococcus aureus were more likely to have atypical signs of infection. Bacteremia impact long term functional status: ADL score decreased from 3.6 (±2.0) (before bacteremia) to 2.9 (±2.2) 3 months later (p=0.003).
Conclusion: Elderly patients with bacteremia have a poor vital and functional prognosis in the short and long term. Physicians should be attentive to patients without infectious typical signs because of an increased risk of death. Blood sample should be considered in elderly, especially diabetic patients, with unexplained clinical manifestations.

P-514

Combined plasma elevation of CRP, intestinal-type fatty acid-binding protein (I-FABP), and sCD14 identifies older patients at high risk for healthcare-associated infections

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Introduction: We hypothesized that low-grade inflammation was driven by microbial translocation and associated with an increased risk of healthcare-associated infections (HAIs).
Methods: We included 121 patients aged 75 years or over in this prospective cohort study. High-sensitivity-C-reactive protein (hs-CRP) as a marker of low-grade inflammation, I-FABP as a marker of intestinal epithelial barrier integrity, and sCD14 as a marker of monocyte activation were measured at hospital admission of patients.
Results: HAIs occurred during hospitalisation in 62 (51%) patients. Elevated hs-CRP (≥6.02 mg/L, i.e., the median) was associated with a significantly higher HAI risk when I-FABP was in the highest quartile (odds ratio [OR], 4; 95% confidence interval [95%CI], 1.39–11.49; P=0.010). In patients with hs-CRP elevation and highest-quartile I-FABP, sCD14 elevation (≥0.65 pg/mL, i.e., the median) was associated with an 11-fold higher HAI risk (OR, 10.8; 95%CI, 2.28–51.1; P=0.003). Multivariate analyses adjusted for invasive procedures and comorbidities did not change the associations linking the three markers to the HAI risk.
Conclusions: Increased levels of hs-CRP, I-FABP, and sCD14 may reflect loss of intestinal epithelial barrier integrity with microbial translocation leading to monocyte activation and low-grade inflammation. In our cohort, these markers identified patients at high risk for HAIs.

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Comparison between the clinical forms at the acute phase of Chikungunya virus infection as defined by the WHO, and the clinical presentation in elderly subjects

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Introduction: In Chikungunya virus infection (CHIKV) three clinical forms at the acute phase have been defined by the World Health Organization (WHO), namely acute clinical cases, atypical cases, and severe acute cases. We aimed to compare the clinical presentation presented by elderly patients during the acute phase of CHIKV with the definitions by the WHO.
Methods: Cross-sectional study performed in the University Hospital of Martinique from retrospective cases. Patients aged ≥65 years, who attended the emergency department with a positive biological diagnosis of CHIKV (RT-PCR), between January and December 2014 were considered eligible. They were compared to a randomly selected sample of younger controls (<65 years).
Results: A total of 267 elderly patients (80±8 years), and 109 controls (46.2±12.7 years) were included. In terms of clinical forms of disease, in elderly and controls, typical presentation was present in 8.2% and 59.6% (p<0.0001) respectively, atypical presentation was present in 29.6% and 5.6% (p<0.0001) respectively, severe presentation was present in 19.5% and 17.4% (p=0.65) respectively. In the elderly group, 114 (42.7%) could not be classified in any category (absence of fever, absence of joint pain, or both); In the controls group, 19 (17.4%) could not be classified (p<0.0001).
Conclusions: Only 8,2% of the elderly subjects presenting at the acute phase of CHIKV have typical forms. These results suggest that the most frequent clinical presentation of CHIKV in the elderly population differs from that most commonly observed in younger populations.

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Early diagnosis of sepsis: Is quickSOFA a good screening tool?

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Introduction: The qSOFA score, is offered as a quicker screening tool for sepsis that can be easily used at the bedside.
Methods: We conducted a retrospective cross-sectional study. The records of all patients older than 65, hospitalized between January and September2016 with the diagnosis of sepsis (ICD-10) were reviewed. Clinical information at admission and vital signs, laboratory and microbiology results, APACHE2 score and qSOFA were obtained; and also 30-day-mortality. We performed descriptive and a multivariable analysis. A multivariate logistic regression model was fitted to study mortality predictors.
Results: A total of 223 patients were included. Median age (75 (IQR 71–82 years old)). 30-day-mortality was 22 patients (14%). Seventy-five patients (48%) presented with urinary tract infection, 45 (29%) with respiratory infection and 26 (11%) with abdominal infection. Bacteriemia was present in 95 patients (42%). No differences in qSOFA nor in 30-day mortality were found among different sites of infection nor in patients with bacteremia. At admission 40 patients (17%) with sepsis fulfilled the qSOFA criteria. The 30-day-mortality in patients who scored positive in qSOFA was of 12%. Moreover, in 70% of patients that fulfilled the SIRS criteria, qSOFA score was <2 (p<0.001). Multivariate logistic regression analysis revealed that albumin levels (OR=0.3, 95% CI: −0.17–0.56, p<0.0001), C-Reactive Protein (CRP) (OR=1.03, 95% CI: 1.02–1.23, p=0.07)and Charlson comorbidity index (OR=1.32, 95% CI: 0.978–1.806; p=0.007)were the independent risk factors for 30-day-mortality.
Conclusions: qSOFA is not a good predictor for the diagnosis of sepsis in elderly patients in our study. Only 24% of patients with confirmed diagnosis of sepsis fulfilled the qSOFA criteria, whereas 70% fulfilled SIRS criteria. The main predictors of mortality were: albumin, CRP and Charlson comorbidity index.

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Effectiveness of live zoster vaccine in preventing postherpetic neuralgia (PHN)

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Introduction: A single dose, live attenuated zoster vaccine, is licensed in >50 countries for the prevention of herpes zoster and PHN. Duration of protection is evaluated in a long-term observational study. We previously reported that vaccine effectiveness (VE) to prevent zoster tended to decline over time and was on average 45–50% over 5 years in people ≥60 (60+) years. We present here the results of VE against PHN.
Methods: The study is conducted in a US healthcare plan as an open cohort that members enter unvaccinated when they become age-eligible for vaccination. PHN cases among vaccinated and unvaccinated zoster cases were identified as having a PHN-specific diagnosis code ≥90 days after first zoster code. VE against PHN was estimated using Cox regression adjusting for sex, birth year,

race/ethnicity, healthcare use, comorbidities and immunocompromise status.
Results: In 2007–2014, ~400,000 subjects were vaccinated (coverage >50% in 60+) and ~50,000 zoster episodes with >3000 PHN cases occurred. VE against PHN was 82% (95% CI: 76–87) in the first year, decreased in the second year, and then remained relatively stable through year 5, with an average VE over the first 5 years following vaccination of 72%, 69% and 61% in people vaccinated at age 60–69, 70–79, and 80+ years, respectively.
Conclusions: Overall VE against PHN was ~70% in all 60+ age groups. VE against zoster and PHN in people 80+ was similar to younger 60+ groups, supporting vaccination of all eligible people, including the elderly who are at increased risk of zoster and PHN.

P-518
Efficacy of a short-term prophylactic antibiotic protocol in prostatic surgeries for elderly with indwelling catheter

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Introduction: Indwelling urinary catheters (IUC) are overused in the elderly population and represent a major risk factor for urinary tract infections (UTI) and loss of functional autonomy. Surgical procedures are available for catheterization cessation but healthcare associated infections can occur. We evaluated the efficiency of a specific antibiotic protocol implemented for the prevention of perioperative prostatic surgery infections.
Material and methods: A multidisciplinary team was established to include patients over 70 years with IUC eligible for an alternative treatment option using comprehensive geriatric assessment during a 1-year period in 2016. Based on preoperative urine analysis, patients received antibiotic therapy during 5 days (2 day before and 2 days after the surgery). Use of narrow spectrum drugs was prioritized. Favorable outcome was defined as the absence of UTI during the month after surgery.
Results: Twenty-two patients with a mean age of 84.3 years (72–93 years) were included among which 7 had a sterile urine analysis and 15 received the antibiotic treatment. The main bacteria involved were Klebsiella pneumoniae (n=4), Enterococcus faecalis (n=4), Escherichia coli (n=3), 4 urine analysis were polymicrobial. With only one post-operative infection, we recorded a 95.5% efficiency rate of our protocol.
Conclusion: These first results suggest that a 5 days perioperative antibiotic therapy for prostatic surgery in IUC carriers is effective for post-operative infection prevention. Monitoring data should allow to complete these results with a longer follow-up and validate the protocol.

P-519
Establishing an antibiotic stewardship team in a geriatric department of a German hospital and introducing an online evaluation and documentation tool

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Introduction: Facing the challenge of the rise of multiresistent agents, especially in the Gram-negative field and Clostridium difficile as a result of decades of inconsiderate use of anti-infective substances it is highly important to rethink and to build structures to avoid further progression.
Methods: By establishing an antibiotic stewardship team structures were built to analyze resistance rates and the use of antibiotics. Recommendations in the choice of substances due to common and special infections were worked out considering the local characteristics. Therefore, we developed an online tool for evaluation and documentation of the orders of antiinfective substances before application.
Results: After the use of antiinfectives had another rise comparing 2015 to 2016 from 351,7 RDD per 100 cases to 386,0 we came to the decision to get more control of the use of antibiotics. Moreover, the cases of clostridium difficile infections had a rise of almost 29% comparing 2015 to 2016. Therefore, the antibiotic stewardship team was founded, consisting of three antibiotic stewardship experts, one out of each department, the hospital hygienist and a clinical pharmacist.
Conclusions: It's an urgent necessity to decrease the usage of antiinfectives to avoid further multiple resistance and unwanted side effects like clostridium difficile associated diarrhea. Therefore, we founded an antibiotic stewardship team and developed an online tool, which rises attention evaluating the definitive need for antibiotic therapy and documents antibiotic therapy for intermittent analysis.

P-520
Impediments for influenza and pneumococcal vaccination in geriatric oncology

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Background: Influenza and invasive pneumatic diseases are more frequent and deadly in immuno-compromised older cancer patients. Vaccinations are recommended, however the majority do not receive the vaccine. The objective of this study was to assess characteristics of elderly patients with cancer preventing them from accessing and accepting influenza and pneumococcal vaccination.
Methods: More than 100 consenting patients over 75 years'old with progressive cancer (solid tumors or hemopathy, treated or not) were included in a French university hospital. Description of socio-demographics (age, sex, lifestyle), cancer (type of cancer, date of diagnosis, metastatic or not, curative treatment or not), comorbidities and geriatric characteristics (cognitive function, depression, nutrition, walking perimeter, autonomy for activities of daily living ADL/IADL), vaccination status against influenza and pneumococcal, opinion of the patient's general practitioner and oncologist regarding vaccination.
Results: We present socio-demographical and medical characteristics of patients associated with the absence of vaccination and discuss measures to enhance influenza and pneumococcal vaccination.
Conclusion: Accessing and/or accepting influenza and pneumococcal vaccination is still a challenge for elderly patients with cancer.

P-521
Improving factors of PPSV23 vaccine coverage rates in adults aged 65 years in Japanese municipalities – nationwide community-based survey

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Introduction: In the 23-valent pneumococcal polysaccharide vaccine (PPSV23) program for elderly in Japan, various measures including notification of program eligibility through newsletters, broadcasting and financial support to reduce out-of-pocket costs, are taken by municipalities to raise PPSV23 coverage rates. We investigated whether both notification methods and financial support raise the PPSV23 coverage rates in Japan.

Methods: A postal and web-based nationwide survey was sent in June 2016 to all municipalities of Japan (n=1741). We used a self-administered questionnaire to collect the PPSV23 coverage rates in adults 65 years. Details on notification method and out-of-pocket costs for vaccination were also collected by the questionnaire. Additional municipality-level variables were collected from the national statistics in Japan, including demographic, socioeconomic and health system indicators. Multiple regression was used to explore the effect of the notification methods and out-of-pocket costs on PPSV23 coverage rates adjusting for municipality-level factors.
Results: 1022 responded to the survey (response rate 58.7%). Median PPSV23 coverage rate among municipalities was 41.3% (IQR; 32.2–48.5%). In multiple regression, PPSV23 coverage increased with the number of notifications sent to an eligible individual ($p<0.001$, adjusted means; none; 23.7%, once; 42.8%, twice; 49.2%, three times and more; 47.4%). PPSV23 coverage decreased by 3.0% (2.3–3.7%) per 1000 Yen increase in out-of-pocket costs ($p<0.001$). The type of notification was not significantly associated with PPSV23 coverage (P=0.60).
Conclusions: The number of notifications, as well as out-of-pocket costs, were associated with PPSV23 uptake in Japanese municipalities.

P-522
Influenza vaccination in 65 and over age adults in a Turkish county, Soke

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Introduction: Seasonal influenza viruses, which are beginning to appear from autumn, are more lethal in less than 6 months and over 65 years. As a result of changes in the structure of influenza virus, different strains are emerging each year. The most effective method of prevention is influenza vaccination every fall. The aim of this study is to determine the frequency of influenza vaccination and to investigate the sociodemographic factors related to influenza vaccination in those who live in the Söke District of Söke Municipality Health Services Department over 65 years of age.
Methods: The study was carried out among people over 65 years of age who served by Söke Municipality Health Affairs Directorate. As a data source, a questionnaire consisting of 13 questions developed in the research team was used.
Results: A total of 641 persons (385 women, 256 men, average age 74.13±6.7 years) were reached. 88.9% of the patients with any chronic illnesses were detected. 22.3% of the participants stated that they had regular seasonal influenza vaccination every year and 8.9% had irregular seasonal influenza vaccination. When asked about who recommended seasonal influenza vaccination, 44.0% was recommended by the family physician and 45.0% was achieved by the non-physician. Among the vaccine recipients, the rate of influenza vaccination was 11.0% with the recommendation of physicians outside of the family physician.
Conclusions: Influenza is seen as a health threat for the elderly as it can lead to serious complications. Particularly fragile elderly are among the high risk groups because of influenza complications, which may lead to bacterial pneumonia and exacerbation of chronic illnesses. In the study conducted by Polat et al. In Antalya in 2006, the percentage of influenza vaccination in the population over 65 years of age was determined as 15.0%. The transition to the family medicine system from 2011 onwards in our country may explain the fact that the percentage of those who have influenza vaccine in our country (22.3%) is slightly higher.

P-523
National prevalence study of healthcare associated infections and antibiotic use in nursing homes (France 2016)

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Introduction: The first national point prevalence study (PPS) of Healthcare associated infections (HAI) and antibiotic use (AB) was conducted in French nursing homes (NH).
Objectives: Describe and measure prevalence of HAI and AB, raise awareness of HCW and prescribers, identify needs for intervention, training or additional resources.
Methods: PPS was proposed to a random sample of 719 NH selected among 7,387 French NH. Data were collected in May-June 2016, concerning NH organization and resources, HAI & AB use. We focused on urinary tract infection/UTI (including micro-organisms and resistance pattern), C. difficile infection/CDI, pneumonia/PNE, low respiratory tract infection/LRTI, influenza/FLU, skin & soft tissue infection/SSTI, wound & pressure sores infection/WPSI, scabies/SCA, catheter-related infection/CRI. Results were weighed according to sampling design.
Results: Data concerned 367 NH (51%) and 28,277 residents. Exposure to invasive procedures was low: 3.3% catheters (mostly subcutaneous), 1.7% urinary catheters and 0.9% surgery <30 days. Prevalence rates were 2.9% [CI 95%: 2.57–3.29] residents with HAI (med 2.5, range 0–21.1) and 2.8% [2.46–3.07] residents with AB (med 2.3, range 0–21.1). Among HAI, 36.9% were UTI, 24.0% IRB, 11.0% PNE, 20.4% SSTI, 5.6% WPSI, 1.3% CRI and 0.3% SCAB, 0.1% CDI. Only 68.8% of UTI were confirmed microbiologically: Enterobacteriaceae were predominant with 26.3% 3GC resistance and 13.3% EBSL. Concerning AB use, most frequent AB were 20.9% 3GC, 19.0% penic. A, 16.0% amoxicillin-clavulan., 12.3% macrolides, and 11.4% fluoroquinolones. A high level of prophylaxis was observed (13.7%).
Conclusion: This PPS provides French NH with reference data and appears effective in monitoring local and national strategies for HAI prevention and AB use.

P-524
Native aortic valve endocarditis due to Pseudomonas stutzeri in a ninety-one-year-old woman

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Introduction: Pseudomonas stutzeri (P. stutzeri) is an aerobic, non-fermenting, Gram-negative bacteria. This environmental contaminant is usually isolated in soil and water; in human, P. stutzeri isolation is usually considered as contamination or colonization. Here we report the case of native valve endocarditis (NVE) due to P. stutzeri.
Case description: A ninety-one-year-old woman was admitted to our acute geriatric unit in August 2016 after she fell. Clinical examination findings were poor (no fever nor heart murmur or splenomegaly). Native aortic valve endocarditis was diagnosed according to European Society of Cardiology (ESC) 2015 modified diagnostic criteria with two major modified Duke's criteria: persistently positive blood cultures (five blood cultures positive for P. stutzeri) and trans-esophageal echocardiography positive for infective endocarditis (IE) with a 5 mm oscillating intra-cardiac mass on the posterior aortic cusp. FDG-PET did not contribute to find the source of infection nor extra-cardiac septic localizations. Clinical

cure was achieved after 6 weeks of intravenous administration of antibiotic combinations, with no need for surgical treatment.
Conclusions: To our knowledge, this is the first case of community-acquired native valve endocarditis due to P. stutzeri. Elderly patients are more likely to experience infections due to non-virulent pathogens. Malnutrition and immunosenescence may contribute to uncommon infections' susceptibility. This case emphasizes the need for clinical recommendations for diagnosis and treatment of non-HACEK Gram-negative endocarditis.

P-525
Perihepatitis associated with peritoneal tuberculosis mimicking male Fitz-Hugh-Curtis syndrome; a case report

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Perihepatitis is defined as inflammation of the peritoneal capsule of the liver. Fitz-Hugh-Curtis syndrome has been described as focal perihepatitis accompanying pelvic inflammatory disease caused by Neisseria gonorrhoeae and Chlamydia trachomatis. The highest incidence occurs in young, sexually active females. There are few reports in the literature of Fitz-Hugh-Curtis syndrome associated with pelvic infection by Mycobacterium tuberculosis in female patients. But none were reported with male patients. We experienced a case of perihepatitis in a 72-year-old male patient, associated with peritoneal tuberculosis, mimicking male Fitz-Hugh-Curtis syndrome in ED, and we report a case with a review of the literature.

P-526
Pharmacokinetics of ertapenem administrated by subcutaneous or intravenous route in patients aged over 75. PHACINERTA, preliminary results

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Background: Antibiotic administration through subcutaneous (SC) injection is common practice in France, especially in Geriatrics as an alternative to IV route in case of poor venous access or delirium. Ertapenem is a long-acting parenteral carbapenem indicated especially in the treatment of extended spectrum β-lactamase (ESBL) producing enterobacteria infection. Sparse PKPD data are available for such a practice.
Methods: Patients >75yo receiving ertapenem (1g once daily) for at least 48h (IV or SC, steady state) were prospectively included after informed consent was obtained. Ertapenem concentrations (H0, H+0.5h and H+2.5h) were determined by Liquid chromatography-mass spectrometry and analysed regarding the administration route. Using our data, AUC (area under the curve) between 0 and 24 hours (AUC0–24) was estimated using the trapezoid method. Computations were performed with the Monolix® software. Tolerance and efficacy were monitored as well.
Results: 10 (mean 87±7.0 yo) and 11 patients (mean 88±5.0 yo) were included in IV and SC group respectively. All patients completed the 3 blood collections. Mean ertapenem residual observed concentrations were not different between IV (mean 11±8 ug/mL) and SC (11±7 ug/mL). At the end of the infusion, observed Peak concentration was 6-fold higher in the IV (186±98ug/mL) group compared to SC group (29±22 ug/mL) and 2 fold higher 2 hours after the end of the infusion (101±34 versus 58±36 ug/mL). Individual predicted AUC0–24h were not significantly different between IV and SC groups (986±302 versus 887±212 ug/ml*h, p=0.27). More results regarding safety and efficacy are on progress.
Conclusions: The preliminary results of this original pharmacokinetics study on ertapenem support the hypothesis that SC administration could be an effective alternative to IV route. Confirmation of these results could avoid or shorten hospitalisation of this population.

P-527
Predicting the 28-day mortality rate in elderly patients with community-acquired pneumonia: Evaluation of 11 risk prediction scores

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Introduction: Community-acquired pneumonia (CAP) is the most frequent cause of infectious disease-related morbidity, and mortality among all patients. Elderly patients are at a higher risk of developing severe CAP because of many underlying disease, changes in the health status. In this study, we evaluated the performance of existing risk scores for predicting the 28-day mortality rate in patients presenting with community-acquiring pneumonia (CAP) in an emergency department.
Methods: We conducted a cross-sectional study at the Celal Bayar University Hospital in Manisa, Turkey. The records of consecutive elderly patients with CAP were reviewed for this retrospective study. All patients were followed-up to assess their outcome within 28 days of the admission. The discriminative performance of the 11 risk prediction scores for patients with CAP was assessed using the area under the receiver operating characteristic curve (AUC).
Results: A total of 151 elderly patients [mean age, 76.6±7.8 years (range, 65–94 years); 65.6% men] with CAP were evaluated. There were 30 deaths by 28-day, an allcause mortality rate of 19.9%. All scores except the CAP-PIRO achieved an AUC greater than 0.700, demonstrating fair discriminative power. All scores were evaluated by the Z-test to see if there were significant difference between them.
Conclusion: Four of the existing scores had good discriminatory power (AUC >0.800) to predict the 28-day mortality rate. The best discrimination was demonstrated by CURB-age, a score designed for the elderly patients with CAP. Only one score was under the level that is considered to indicate fair discriminative power (AUC <0.700). Additional research is needed to determine the best risk score for predicting early mortality rates of elderly patients following CAP.

P-528
Prediction of inhospital mortality in elderly patients with Chikungunya virus infection in Martinique (French West-Indies)

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Introduction: Chikungunya virus (CHIKV) infection spreads following an endemic-epidemic pattern with high prevalence [1–3]. Excess mortality has been reported during outbreak [4–6]. We aimed to predict inhospital mortality in 65+ population hospitalised with CHIKV Infection.
Methods: The study was performed in the University Hospital of

Martinique from retrospective cases. Eligible patients were aged ≥65 years, admitted to any clinical ward from January to December 2014, and underwent RT-PCR testing for CHIKV infection. A predictive score was created using adjusted odds ratio of factors associated with inhospital mortality. ROC curve was used to determine the best cut-off. Bootstrap analysis was used to evaluate its internal validity.
Results: In all, 385 patients aged ≥65 were included (average age: 80±8 years). Half of them were female and 35 (9.1%) had died during the hospital stay. Seven variables were found to be independently associated with inhospital mortality (cardiovascular disorders: 12 points; concurrent respiratory infection: 10 points; concurrent sensorimotor deficit: 8 points; absence of musculoskeletal pain: 3 points; history of alcoholism: 3 points; concurrent digestive symptoms: 2 points; presence of confusion or delirium: 2 points). The area under the curve was excellent (0.90; 95% CI: 0.86–0.94). The best cut-off was score ≥8 points; sensitivity was 91% (82%-100%) and specificity was 75% (70%-80%).
Conclusions: Score based on easy-to-access clinical features has good discrimination and calibration properties in the elderly. It will be very helpful to help for early care management of elderly subject in the context of CHIK outbreaks.
References:
[1] Sissoko D, Moendandze A, Malvy D, et al. Seroprevalence and risk factors of chikungunya virus infection in Mayotte, Indian Ocean, 2005–2006: a population-based survey. PLoS One 2008; 3:e3066.
[2] Staples JE, Breiman RF, Powers AM. Chikungunya fever: an epidemiological review of a re-emerging infectious disease. Clin Infect Dis 2009; 49:942–8.
[3] Petersen LR, Powers AM. Chikungunya: epidemiology. F1000Res 2016; 5.
[4] Mavalankar D, Shastri P, Bandyopadhyay T, Parmar J, Ramani KV. Increased mortality rate associated with chikungunya epidemic, Ahmedabad, India. Emerg Infect Dis 2008; 14:412–5.
[5] Cardona-Ospina JA, Henao-SanMartin V, Paniz-Mondolfi AE, Rodriguez-Morales AJ. Mortality and fatality due to Chikungunya virus infection in Colombia. J Clin Virol 2015; 70:14–5.
[6] Labeaud AD, Bashir F, King CH. Measuring the burden of arboviral diseases: the spectrum of morbidity and mortality from four prevalent infections. Popul Health Metr 2011; 9:1.

P-529
Prevention of nosocomial influenza in a French geriatric unit during influenza season 2016/2017

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Introduction: Influenza presents a life-threatening infection for geriatric patients, who might be nosocomially infected via healthcare workers (HCWs), patients or visitors. Our objective was to evaluate a multimodal strategy to prevent nosocomial influenza.
Methods: A multimodal strategy was implemented in a 32 bed Geriatric unit: HCWs' education on Influenza disease, promotion of Influenza vaccination (HCWs), rapid identification of influenza cases by PCR, isolation of influenza cases, curative and preventive use of oseltamivir, systematic use of mask for all HCWs and visitors (evaluated 2 times per week), and prospective survey of all influenza cases. All hospitalized patients were included. Nosocomial influenza was defined by a time interval between admission and symptoms' onset >72 hours.
Results: Among 174 patients hospitalized (01.12.16 to 19.02.17) 98 (56%) patients have presented respiratory symptoms and were tested for Influenza; 26 (27%) patients were positive for Influenza A: 5 (19%) were nosocomial. Among 26 influenza cases, 16 patients were vaccinated and 4 were not vaccinated (vaccination status unknown for 6). Among 5 nosocomial influenza cases, 1 patient was vaccinated and 2 were not vaccinated (vaccination status unknown for 2). HCWs' influenza vaccination rate was 53% (26/49). Compliance with systematic use of mask was 83% (168/203) for HCWs and 75% (41/55) for visitors.
Conclusions: Despite the implementation of a multimodal strategy, nosocomial influenza cases occurred. Level of compliance for systematic use of mask was high for HCWs and should be encouraged for visitors. Influenza vaccination for HCWs and patients should be strengthened to prevent nosocomial influenza.

P-530
Prospective review of the quality of antibiotic prescriptions in an acute geriatric ward

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Objective: We wanted to assess the compliance of antibiotic prescriptions to guidelines.
Methods: We conducted a prospective clinic study during 98 days. All the antibiotic prescriptions were analyzed after clinical and medical records examination, at the first day initiation (D1) and at 48h-72h (D3) and compared to reference. They were classified as unnecessary, not conform and conform prescriptions.
Results: 149 prescriptions were analyzed (61 to D1, 88 to D3). They were classified as unnecessary in 13% of cases to D1 and D3, and not conform in 49% and 39% of cases to D1 and D3 respectively. The wrong choice of the molecule, the extended duration and intravenous administration were the main causes of not conform prescriptions. We can not identified a non-compliance risk factor. The third generation cephalosporin was the major class of antibiotics prescribed.
Conclusion: Only the fragility and comorbidities can not justify the frequency of non-compliance in antibiotics prescriptions. Reduce probabilistic prescriptions and the duration of antibiotics can limit overuse of antibiotics. Take into account microorganisms identifications need to be improved. A second study to measure the efficacy of help to antibiotic prescriptions is necessary.

P-531
Psoas abscess due to Mycobacterium tuberculosis in a patient with total hip arthroplasty

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A 70 year-old female had a left hip arthroplasty eight years ago. She had a one-year history of fluctuating pain in her left hip treated with analgesics with partial relief of symptoms. She came to the hospital with complaints of five days of fever, pain and swelling of left hip and posterior aspect of the thigh. C-reactive protein was 75.5mg/L. A computed tomography (CT) showed an iliopsoas abscess (6.5×7×7.5cm). Needle aspiration was performed obtaining 120 ml of abscess fluid. Cultures were negative, and broad-spectrum antibiotics were started. After five days, there was persistent yellowish drainage through the wound opening. A surgical inspection revealed a pseudocyst with dense material near the prosthesis. It was completely aspirated. The prosthesis was not removed.

Drainage for the wound was sent for PCR amplification (Gene-Xpert MTB/RIF assay) for Mycobacterium tuberculosis (MTB), which was positive. Adenosine deaminase was 80UI/L. A week after beginning the tuberculostatic drugs, the drainage stopped. A new CT showed a remarkable decrease in the size of the collection. Psoas abscess is a collection of pus in the iliopsoas muscle compartment. It may be clinically difficult to diagnose because of its rarity, insidious onset, and non-specific clinical presentation. In this case her hip prosthesis might had been colonized by MTB protected inside the biofilm. In a Spanish review of 30 cases of psoas abscess, 17% were tuberculosis and 83% were pyogenic. MTB should be considered in where tuberculosis is common.

P-532

Pulmonary manifestations and death due to aspiration in patients diagnosed with ischemic and non-ischemic stroke

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Objectives: To evaluate pulmonary manifestations and death due to aspiration in patients submitted for ischemic and non-ischemic stroke.
Design: Retrospective study.
Setting: Hospital care setting in the Netherlands, NWZ Alkmaar.
Participants: A retrospective medical records review was conducted for patients submitted at the neurological ward with a diagnosis of ischemic or non-ischemic stroke for the year 2009. Data collection included: demographics, comorbidity, mortality, cause of death, infection parameters and medication. Additionally we scored for the presence for known risk factors for pulmonary aspiration syndrome (PAS). Primary and secondary outcome measures The primary outcome is death due to PAS, secondary we investigated the known risk factors for aspiration among other pulmonary symptoms. Univariate and multivariate logistic analysis was performed.
Results: 303 patients were identified with ischemic and non-ischemic CVA in 2009; 155 (51%) subjects were female. In the entire group age ranged from 31–96 years, with a mean of 71 years. The majority of this group, 245 subjects (80%) were diagnoses as ischemic stroke. 25 out of 300 patients developed PAS. The diagnosis of PAS required the presence of a consolidation at chest X ray, increased CRP and fever >38.5 °Celsius in presence of one or more of the following: naso gastric tube feeding ($p<0,001$), impaired swallowing ($p<0,001$), documented vomiting ($p=0,299$), witnessed aspiration ($p<0,001$), lowered EMV ≤8 ($p<0,001$). All of these risk factors showed significance except for vomiting. Almost one third; 8 out of 25 patients (31%) who developed PAS died. Age >70 was non significant ($p=0,054$) for patient with PAS for a fatal outcome.
Conclusions: If PAS developed there was a high risk of mortality, almost one third of these patients died. Age >70 was close to be of significance. Of the previously described risk factors only witnessed vomited was non-significant. We re-established the value of the known risk factors. Awareness might assist the identification of high-risk patients for fatale outcome.

P-533

Screening for Chikungunya virus infection in the elderly: Development and internal validation of a new score

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Introduction: This study aimed to derive and validate a score for Chikungunya virus infection (CHIKV) screening in old people admitted to acute care units.
Methods: It was performed in the Martinique University Hospitals from retrospective cases. Patients were 65+, admitted to acute care units, for suspected Chikungunya virus infection (CVI) in 2014, with biological testing using Reverse Transcription Polymerase Chain Reaction (RT-PCR). RT-PCR was used as the gold standard. A screening score was created using adjusted odds ratio of factors associated with positive RT-PCR derived. A ROC curve was used to determine the best cut-off of this score. Bootstrap analysis was used to evaluate its internal validity.
Results: In all, 687 patients were included, 68% with confirmed CVI. Patients' mean age was 80±8, and 51% were women. Four variables were found to be independently associated with positive RT-PCR (fever: 3 points; arthralgia of the ankle: 2 points; lymphopenia: 6 points; absence of neutrophil leucocytosis: 10 points). The best cut-off was score ≥12; sensitivity was 87% (83%-90%) and specificity was 70% (63%-76%). The uncorrected C-statistic was the same as the bootstrapped C-statistic, namely 0.86 (95% CI: 0.83–0.89).
Conclusions: This score has good performances and good internal validation and could be helpful to screen elderly people with CHIKV, specially during outbreak in low- and middle-income countries.

P-534

Seasonal influenza and vaccination: Survey of Health Care Workers in a gerontologic department

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Introduction: Influenza is an acute viral infection that spreads easily from person to person, causing serious complications in certain risk groups. Despite WHO and European recommendations for Health Care Workers (HCW) to get vaccinated against seasonal influenza, low coverage is observed. In our department, influenza vaccine is around 25% in HCW (versus 80% in patients). Lack of comprehensive data on influenza vaccine among HCW presents a challenge for understanding low coverage, and to improve prevention. That is why we investigated the HCW perception and knowledge of influenza and vaccines.
Methods: Anonymous, self-administered questionnaires, distributed in Gerontologic Department, in autumns 2015 and 2016. Questions are about influenza knowledge, vaccines perception, reasons for getting vaccinated or not, influence of previous information campaign. Data are compiled and analyzed by the clinical research unit.
Results: Participation rate around 36%. Three socio-professional categories under represented (maybe less concerned by the subject). Link between non-vaccination and age. In prevention, among people who do not get vaccinated, 15% use homeopathic vaccine, 48% use vitamins, phytotherapy or special diet, 37% nothing. 70% underestimate influenza severity.
Conclusion: We observe a lack of confidence not only in influenza vaccination, but in vaccination in general (14% of respondents). These results help to adapt prevention campaign in information, arguments to improve, and people to be reached, even beyond HCW (as animation team, food service staff, administrative staff), and the way to diffuse the campaign (physicians seem more likely to recommend influenza vaccination to HCW they are working with). Moreover, they provide a baseline to measure future improvements in seasonal influenza vaccine uptake.

P-535

The impact of dosing schedules on vaccination acceptability in older people in the UK

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Background: Research with UK health care professionals indicated multiple-dose vaccines are less acceptable to older patients and could lead to reduced vaccine uptake compared with single-dose vaccines [Value in Health (2016), 19, A42]. Access to a medical appointment and population preferences were cited as likely issues. This survey aimed to explore these concerns with older people.
Methodology: One thousand individuals aged 65–89, randomly selected to be representative for age, gender, socio-economic grade and regionally across the UK were interviewed by telephone in October 2016.
Results: Difficulties affecting the ability of respondents to attend primary care were explored, with the most common reason given as 'Unable to get an appointment' (62%).Eighty per cent of respondents had received a vaccination within the last 2 years. When asked, 84% preferred vaccination courses to be completed in one dose over multiple doses and 79% preferred to have multiple different vaccinations in one visit, rather than individual appointments for each vaccine type. Only 37% of respondents agreed they would return for a subsequent dose of a vaccine if they had tolerability issues with the first dose.
Conclusions: Accessing primary care can be a challenge for older people and it is unsurprising that they express a clear preference for single-dose vaccines. This research suggests that the effectiveness of a multi-dose vaccination programme could be impacted if the first dose is associated with tolerability issues or difficulty getting a follow-up appointment for subsequent dose(s) with the result that people do not return to complete the course.

P-536

The value of C-reactive protein in infection diagnosis and prognosis in elderly patients

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Introduction: Diagnosing infection in the elderly is difficult, but early diagnosis and treatment is critical due to the high incidence of morbidity and mortality in these patients. The aim of this study was to determine the value of C-reactive protein (CRP) level in the diagnosis and prognosis of infection in elderly patients.
Study population: This prospective study included inpatients in the palliative care unit during the 1-year period between January 2016 and January 2017. Patients' demographic data, comorbid diseases, clinical and laboratory findings, Acute Physiology and Chronic Health Evaluation (APACHE II) score, and Charlson Comorbidity Index were recorded. Blood and urine samples were collected from all patients at admission for culturing, as well as sputum samples from patients with respiratory symptoms. Cultures were repeated after 48 hours to determine microbiologic response according to the focus of infection.
Results: A total of 233 patients (50.6% females) with a mean age of 77.6±11.0 years were included in the study. A total of 199 instances of infection were diagnosed in 175 (75.1%) of those patients; 75.3% of the infections were detected at admission and 24.7% during hospitalization. At a cut-off value of 4.82, CRP value had 81.0% specificity and 75.4% sensitivity in the diagnosis of infection. Among the patients with infection, there was no difference between those who died and those who survived in terms of baseline CRP level, but a significant difference emerged in CRP level at 48 and 96 hours. Factors which were found to significantly reduce survival time were the presence of chronic kidney disease, chronic obstructive pulmonary disease, hypoxia and tachycardia at admission, APACHE-II score over 20.5, initial albumin level below 2.44 g/dL, and serum CRP clearance rates of less than 11% at 48 hours and 20% at 96 hours.
Conclusion: In elderly patients with infection, initial CRP value alone does not have prognostic value, but changes observed in serial CRP measurement are a valid indicator of prognosis.

Area: Longevity and prevention

P-537

A gender perspective on factors affecting quality of life when being a caregiver in old age; Findings from the Swedish National Study on Aging and Care (SNAC) study

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Introduction: Elderly persons (60+) are an increasing part of the population. With higher age follows that more people often need care. All the care cannot be met by the public health services, why informal caregiving becomes more and more important, and the glaze often lands on the relatives. In this perspective the careers' individual health problems such as pain and how it affects the quality of life (QoL) when being a career, need to be addressed and highlighted. In this study, relationships between pain, QoL and taking care of a relative are investigated gender wise.
Methods: The SNAC random sample (n=3444) comprised individuals, from the southern part of Sweden (SNAC-Blekinge and GÅS-Skåne), aged 60–96 years, of which 54.0% were women. Pain and QoL (SF-12) were analyzed using descriptive statistics.
Results: In total 395 (11.5%) reported themselves as caregivers and of them 53.7% were women. The male caregivers were more often married, lived together with someone and reported better financial situation compared to the female caregivers. More than half of the caregivers reported pain. Even if the female caregivers were younger than the male (68.50 years, SD 8.57, 70.41 years, SD 9.68, p=0.039) they reported pain in higher intense than the male caregivers, mostly in the back and legs. They also scored lower mental QoL (53.20, SD 9.22) than the men (54.33, SD 9.08), $p<0.003$.
Conclusions: Although the women reported higher pain intense, the association between pain intense and QoL was higher in men (OR 1.32 vs OR1.17).

P-538

A systematic review of the prevalence of oropharyngeal dysphagia in the nursing home population

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Introduction: Oropharyngeal dysphagia (OPD) is an important cause of morbidity and mortality in the nursing home (NH) population. We reviewed the literature systematically to determine an estimate of prevalence of OPD in nursing home populations and to catalogue the methodology employed in identifying its presence.
Methods: We undertook a systematic review identifying original research papers that estimated a prevalence of OPD amongst a general NH population. The databases searched were Pubmed and Embase with keywords "dysphagia", "deglutition" and "nursing

home". The inclusion criteria comprised any paper identifying the prevalence of OPD (by any method) in older NH residents. In addition, we tabulated the methods, where described, of screening for OPD, and clarified how many reported engagement of Speech and Language Therapists (SLT) in assessment and/or management.
Results: We screened 2562 papers. 33 papers, published between 1996 and 2016, were included in the study with estimates of the prevalence of OPD in the NH population ranging from 12% to 88%. OPD estimates varied with the investigative methodology used with qualitative questionnaires revealing lower estimates to those obtained from objective measures. Referral to SLT was reported in just two papers.
Conclusions: The wide range of prevalence estimates found in this systematic review reflects the lack of standardisation in defining, investigating and managing OPD internationally. There is a need for larger local and international studies of the prevalence of OPD in NH residents with the aim of creating a systematic approach to OPD screening and management in this vulnerable population.

P-539
Ageing cities: Planning with the future in mind

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By 2050, 89% of the UK's population will live in cities and 24% will be aged over 65 [1–3] There is also increasing recognition that cities should aim to meet the needs of an ageing population. The concept of an "age-friendly city" was developed by the World Health Organisation (WHO). The WHO identifies eight domains of age-friendly cities that enable older people to participate in all aspects of life, including social, economic, cultural and civic affairs [4–7]. 210 cities in 26 countries were identified as part of the Global Network Initiative of age friendly cities [8], with the USA, Spain and France having the highest number. Twelve cities in the UK are also members. We have examined the many ways in which two of these cities have expanded, adapted and progressed to care for an ageing population. We have researched projects and institutions that have already been set up in the United Kingdom in London and compared this to the existing social infrastructure in the USA in Madison, Wisconsin. In conclusion, we found that both the physical and mental environment play a key role in making cities better places for older people. Research shows that accessibility and safety are important factors in making housing, outdoor spaces and transport more age-friendly. Lessons learnt here have a high potential to be applied throughout the world. This project and recurrent themes from feedback indicate there is still more to be done - by national and local government, service providers, employers, and individuals, to make our cities more age-friendly and supportive of both physical and mental wellbeing.

P-540
Arterial hypertension prevalence and blood pressure levels in centenarians: Preliminary results of the Moscow Centenarian Study

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Aim: The number of centenarians is increasing but they are still underinvestigated population. The aim of the Moscow Centenarian Study (NCT02876809) was to perform complex evaluation of centenarians living in Moscow. Preliminary results on arterial hypertension prevalence and blood pressure levels are reported in this abstract.
Methods: The study included 82 subjects (10 men) aged from 97 to 105 years living at home. All centenarians were visited by a geriatrician at home for comprehensive geriatric assessment and cardiovascular measurements. Medical history including history of arterial hypertension and current antihypertensive treatment was collected during interview with centenarians, their relatives/ carers and using medical notes if available. Blood pressure (BP) was measured twice with 1 min interval after at least 7 minutes rest in supine position by BPLab device (Petr Telegin, Nizhniy Novgorod, Russia) using its office mode.
Results: Arterial hypertension was reported by 64 (78%) centenarians and 29 (45%) of hypertensive subjects used antihypertensive drugs. Average supine BP was 147±26/74+14 mm Hg. Minimal systolic BP was 105 mmHg, maximal 215 mmHg, for diastolic BP respective values were 30 and 110 mmHg. Systolic BP $<$120 mmHg was found in 19%, 120–139 mmHg – in 25%, 140–159 mmHg – in 29%, 160–179 mmHg – in 11%, $>$180 mmHg – in 16%. Diastolic BP $<$60 mmHg was observed in 21%, 60–69 – in 3%, 70–79 mmHg 37%, 80–89 mmHg – 25%, 90–99 mmHg in 10%, $>$100 mmHg in 5%. Predominant type of arterial hypertension is isolated systolic hypertension: 41% isolated elevation of SBP, 15% – systolo-diastolic hypertension.
Conclusion: The preliminary results of Moscow centenarian Study demonstrate wide ranges of systolic and diastolic BP in centenarians. BP impact on physical status and cognitive functions should be evaluated for better understanding of health status in centenarians

P-541
Assessment of awareness of cancer screening of Turkish patients admitted to geriatric outpatient clinic

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Introduction: The aim of this study is to evaluate the awareness of cancer screening of Turkish geriatric patients.
Material and methods: Patients aged 65 years or older, admitted to the geriatric outpatient clinic, were included in this study. A questionnaire assessing awareness of cancer screening were applied to the patients consequently.
Results: A total of 111 patients were included in this study. Median age was 72 years (min-max: 65–87) and %56.8 of them were female. Of all patients, 64.9% had knowledge about cancer screening and 37.8% of the patients learned from television, 18.2% of them from doctors and 23.2% from their relatives or neighbors. The three most common cancers known to be screened were lung, breast, and bowel (38.2%, 34.5% and 22%, respectively). When asked to the patients "have you ever been screened for cancer?" 30% of the patients answered "Yes". However, the rate of applying at least one type of cancer screening tool in medical history was 51.4% of the patients. Three most commonly performed screening tools were mammography, pap-smear and fecal occult blood test (32.1%, 22.9% and 22%, respectively). While 90% of the patients thought that cancer screening was required and useful, 1.8% thought it was unnecessary and useless.
Conclusion: It was shown in this study that vast majority of the patients declared they had knowledge about cancer screening, but the rates of implementation of these preventive medicine applications were lower than expected. It is important to try to increase the implementation of preventive medicine in clinical practice.

P-542

Assessment of physical activity in patients with diabetes mellitus type 2

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Introduction: It is known that a regular intensity physical activity has cardioprotective effects, by decreasing atherosclerosis risk factors, including blood glucose level and insulin resistance.
Methods: A study group consisted of 80 patients (52 women and 28 men; mean age: 63.6±10.1 years), with defined diabetes mellitus type 2 (DMt2) lasting up to 7 years (mean: 4.4±2.1 years). Examined diabetics were treated only with oral hypoglycemic drugs. Besides the antropometric measurements (BMI, body mass index; WHI, waist hip ratio), biochemical parameters (e.g., fasting glucose, HbA1c, lipids, hs-CRP), and clinical examinations (RR, echocardiography, exercise and Holter ECG, and SCORE chart), also the questionnaire about life style (diet, tobacco smoking, body mass changes) was proposed to be answered. The questionnaire concerned also a physical activity of the examined diabetics; its frequency, intensity and caloric expenditure per week were assessed.
Results: The average time devoted to physical activity (walking, bicycle riding, garden works) was ca. 2 hours/week (550 kcal), which does not fulfill current recommendations. Of 80 patients, 20 (25%) did not take up any physical activity. Comparative analysis showed that the "active" diabetics had significantly lower WHR, lower blood glucose and HbA1c, lower hs-CRP and triglicerydes, as well decreased blood pressure and lower SCORE results (10.0±8.1 vs 17.5±14.3), as compared with the "non-active" diabetics.
Conclusions: The physical activity level in the examined elderly diabetics was generally unsatisfactory, however even small doses of exercises proved to be beneficial in context of cardiovascular prevention.

P-543

Assessment of the common predictors and their correlation in subjective wellbeing among elderly in Bohol, Philippines

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Introduction: This study aimed to determine the predictors that affect the subjective well-being among elderlies. The researchers intended to evaluate whether selected individual variables (educational attainment, health status, employment status, and presence of stressors), family variables (marital status, family size, family income, quality of family relationship and family support), and neighborhood variables (social relationships, church attendance, access to amenities/transportation, safe environment and community participation) influence the achievement of subjective well-being among elderlies in Bohol, Philippines.
Methods: The researchers utilized a descriptive correlational design to identify patterns of relationship that existed between the variables and to measure the strength of the relationship. The study was conducted in the municipality of Sagbayan, Bohol, Philippines. The researcher utilized a self-made questionnaire, the Perceived Stress Scale, Spiritual Well-being Scale and the Satisfaction with Life Scale (SWLS) to gather the needed information relevant to the variables under study. Multiple regression using the SPSS software was utilized in the treatment of the data gathered.
Results: It was found out that the mean level of subjective well-being among elderly falls under the average level of life satisfaction (4.23) which means that the elderlies are generally satisfied with the different aspects of their lives but there are certain domains that they would very much like to improve.
Conclusion: Increased levels of subjective well-being among elderly are significantly influenced by age, health status, perceived stress, community participation, family income and neighborhood safety. Implications of these results are noted for the development of programs and initiatives to enhance subjective well-being among elderly.

P-544

Awareness of cancer screening and vaccination among Turkish geriatric patients

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Introduction: Preventive medicine, including cancer screening and vaccination, is crucial for improving quality of life, as well as decreasing morbidity and mortality in geriatric patients. The aim of this study is to evaluate the awareness of cancer screening and vaccination among the geriatric patients.
Material and methods: Patients aged 65 years or older, admitted to the geriatric outpatient clinic, were included in this study. Demographic characteristics of the patients were recorded. Two questionnaires assessing awareness of cancer screening and vaccinations were consequently applied. SPSS 16 version was used for the statistical analysis.
Results: A total of 111 patients were included in this study. Median age was 72 years (min-max: 65–87) and 56.8% were women. Of all patients, 83.6% had information about adult vaccination, however, vaccination rate (at least one kind of vaccine) was 48.2%. Influenza was the most frequently known and applied vaccine (59% and 39.1%, respectively). Adult vaccination had never been recommended to 54.1% of the patients previously. Patients were asked if they considered vaccination useful or harmful for older adults. 79% answered "useful". Of all patients, 64.9% had information about cancer screening and 37.8% learned from television, 18.2% from doctors and 23.2% from their relatives or neighbors. The three most common cancers known to be screened were lung, breast, and bowel (38.2%, 34.5% and 22%, respectively). Patients were asked if they have ever been screened for cancer, 30% answered "Yes". However, the rate of applying at least one type of cancer screening tool was 51.4% in the medical history of the patients. Three most commonly performed screening tools were mammography, pap-smear and fecal occult blood test (32.1%, 22.9% and 22%, respectively). While 90% of the patients thought that cancer screening was required and useful, 1.8% thought it was unnecessary and useless.
Conclusion: Majority of the elderly patients declared that they had knowledge about adult vaccination and cancer screening. However, the rates of implementation of these preventive applications were lower than expected. Further studies are needed to identify the underlying factors playing role in low implementation rates despite high level of awareness.

P-545

Benefits of a personalized, ergocycle-based endurance training program in the community-living elderly

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Introduction: The Centre d'Evaluation et de Remise en Forme (CERF) offers a personalized endurance training program for aged people with physical deconditioning and living in the Mulhouse area. The substance of the 18 training sessions is established after a medical examination and a VO2 Max measurement. Ergocycle-based endurance training aims at preserving a good health status, preventing the development of frailty and promoting the pursuit of any regular physical activity. The program is achieved in a hospital environment, enabling a continuous monitoring.

Methods: This retrospective study based on 2016 data analyses the variations of hemodynamic and metabolic parameters during the program. The comparison covers the first and last sessions, whose implementation conditions (developed power and duration) are identical.
Results: 409 people entered the program. An intermediate sampling, based on 82 patients, with an average age of 67.9 [66; 69,71] years, shows a significant 22% improvement of the endurance, determined by the ventilatory threshold (VT1) (t=18.509; df=81; $p<0.0001$). Furthermore, a mean reduction in heart rate of 5 beats per minute is observed for a similar effort. However, the forced vital capacity (FVC) isn't significantly modified. Final outcomes and analysis of every metabolic, hemodynamic and spirometric data will be detailed in the final publication.
Conclusion: Entering a managed and personalized training program provides, with only 18 sessions, a significant improvement of endurance. The complete data analysis will allow us to assess the impact of the medical and sports history on the people's potential for improvement

P-546
Blood pressure and 5-years survival of the very elderly treated hypertensive patients

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The aim of the study was to evaluate impact of on-treatment blood pressure (BP) level on 5-year total mortality in the very elderly subjects living in the community.
Methods: One hundred and sixty-three patients (42 men) aged 75–98 years (mean age 87,5±3,5 years, 28% were 90 years and older, 94% received antihypertensive treatment) were followed-up. Baseline systolic BP (SBP) was 137±16 mmHg, diastolic BP (DBP) was 77±10 mmHg, pulse pressure (PP) was 60±13 mmHg. Kaplan-Meier analysis and Log Rank (Mantel-Cox) test were applied to evaluate 5-years survival of patients.
Results: Baseline SBP varied from 100 to 200 mmHg (median (Me) 140 mmHg, interquartile range (IQR) 130–140 mmHg), DBP was from 50 to 100 mmHg (Me 80 mmHg, IQR 70–80 mmHg), PP varied from 30 to 100 (Me 60 mmHg, IQR 50–70 mmHg). Patients distribution by SBP level: <130 mmHg was observed in 20,9%, 130–139 – in 21,5%, 140–149 – in 42,3%, 150–159 – in 11,7%, >160 – in 7,9%. Me of follow-up was 3,83 years (min 2 weeks, max 5,43 years, IQR 3,11–4,42 years). Sixty-five (40%) patients died. There was no significant difference in SBP, DBP and PP between those who died or survived. Kaplan-Meier survival curves revealed no significant relationship between SBP, DBP and PP values above or below median value: for SBP χ^2=0,017, p=0,897; for DBP χ^2=0,047, p=0,828; for PP χ^2=1,67, p=0,196.
Conclusion: The study revealed no significant impact of BP on 5-years survival of the very elderly hypertensive subjects with treated and well-controlled according to the current European guidelines on arterial hypertension. Additional factors should be considered to determine predictors of survival in this population.

P-547
Cardiovsacular risk factors and diseases in centenarians: Preliminary results of the Moscow Centenarian Study

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Aim: The number of centenarians is increasing but they are still an underinvestigated population. Traditionally centenarians are considered to be an example of "healthy aging" meaning people free from cardiovascular diseases with favorable cardiovascular risk factors profile. The aim of the Moscow Centenarian Study (NCT02876809) was to perform complex evaluation of centenarians living in Moscow. Preliminary results of analysis of cardiovascular disease and risk factor prevalence are reported in this abstract.
Methods: The study included 82 subjects (10 men) aged from 97 to 105 years living at home. All centenarians were visited by a geriatrician at home for comprehensive geriatric assessment and cardiovascular measurements. Medical history evaluations was based on medical notes (presumably) and/or interview with centenarians, their relatives/carers. Blood samples for metabolic risk factors assessment were obtained in fasting conditions.
Results: Positive medical history of arterial hypertension was found in 64 (78%) centenarians, coronary heart disease in 52%, documented history of myocardial infarction in 20%, chronic heart failure in 32%, stroke 21%, peripheral arterial disease in 4%, diabetes mellitus in 4%. The use of antihypertensive drugs was reported by 35%, statins by 4%, aspirin by 18%. Mean fasting glucose was 4,98±1,9 mmol/l, HbA1c 5,88±0,58%. Lipid profile was evaluated in 64 centenarians: total cholesterol (TCh) 5,04±1,18 mmol/l, triglycerides (Tg) 1,09±0,36 mmol/l, LDL 3,26±0,92, HDL 1,37±0,36 mmol/l. TCh >5,0 mmol/l were observed in 14 (22%) centenarians, Tg>1,7 mmol/l in 1 (2%), LDL>3,0 mmol/l in 17 (27%), low HDL (<1,2 in female, <1,0 in male) in 28 (44%).
Conclusion: The preliminary results suggest that Moscow centenarians are not free from cardiovascular disease though cardiovascular risk factors prevalence seems to be significantly lower than usually reported for elderly and very elderly population. Exceptional longevity achieved by the evaluated people may suggest that they have protective mechanisms against long-term exposure to cardiovascular risk factors.

P-548
Cohort study of the oldest-old of Japan: the Arakawa 95+ study

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Introduction: In Japan, with the progressive ageing of society, the population of the oldest-old is expected to increasing, however, the characteristics of this population remain to be precisely studied. We established a population-based cohort of persons aged 95 years or older (95+) and conducted a baseline survey.
Methods: The subjects of this study were the residents of Arakawa ward in Tokyo who were 95+ years old on January 1st 2016, and provided informed consent for participation in this survey. We mailed questionnaires to assess their physical, mental and social health-related factors. We visited homes or nursing homes and conducted face-to-face interviews with the participants who provided responses to our questionnaires, and assessed their mental health, cognitive function and physical functioning. We also mailed simplified questionnaires to those subjects who did not respond to the full questionnaires.
Results: Of the 210,000 residents of Arakawa ward, 50,000 were 65+ years old and 542 were 95+. We excluded dead residents, mailed 457 questionnaires, received 40 replies, and visited 26

participants. We mailed 363 simplified questionnaires, to which 128 provided responses. The mean age of the responders (N=168) was 98.5±2.4 years. The diagnoses in the 26 participants that we visited (97.7±2.1 years old) were as follows; dementia, 9 (35%); dementia+depression, 3 (12%); mild cognitive disorder (MCI), 10 (39%); MCI+dementia, 2 (8%); normal health, 7 (27%).
Conclusions: The participants of the questionnaire survey and face-to-face interviews were healthier than the non-responders. The diagnostic criteria for dementia in the oldest-old should be discussed from the perspective of their social function level.

P-549
Creativity and well-being in older adults: a correlational study

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Objectives: During the old stage of life, creativity helps individuals to be active and stimulates skills and capabilities that are declining. In addition, it leads people to find a new meaning in their life. Being creative, as many artists and scientists showed, enable persons to consolidate and improve well-being, overall when cognitive functions are concurrently trained. The aim of this study was to assess possible relations between creativity and well-being in the elderly.
Methods: A sample of 139 adults, aged 60–85 yrs, were involved in the investigation. Part of them were living at home and the other part were hospitalized. They were administered two tools to measure the inclination to activate creative thought processes (WCR test) and the ability to elaborate stimuli in a divergent way (a subtest from the TTCT) and the self-report scale "Satisfaction With Life".
Results: Positive correlations between the creative measures and the level of life satisfaction emerged. Different patterns of correlations according to the age level of participants were found, supporting the notion that creativity play different functional roles in supporting subjective well-being. Differences in both creativity attitude and skills, as well as in well-being, due to hospitalization were recorded.
Conclusion: Findings showed that creativity, thanks to the opportunity to focus on curiosity and passions it promotes, allows elderly people to achieve goals and look for new experiences, thus realizing themselves. In addition, the creative attitude leads affective relations to grow so that people are motivated in living, learning, and discovering.

P-550
Effect of haptic supplementation provided by a cane on postural control and gait parameters during locomotion in older adults

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Many older adults who use a cane to move, use it to slightly touch the ground rather than as mechanical support. The present study aimed to assess the benefits of these different uses. 17 participants (6 women, 11 men; age: 83.1±5) were included in the experiment. As a preamble, we verified that the participants were sensitive to haptic supplementation in a static postural task paradigm inspired from Albertsen's study. Then, three walking conditions were completed, at preferred speed, on the GAITRite walkway: without cane (WC1), with a cane used as mechanical support (WC2) or as light touch (WC3). Gait speed, cadence, stride length, Basis of Support (BS), stance time (in % of gait cycle), and acceleration of Center of Mass (CoM) were measured. Results showed that gait speed, cadence, and stance phase were deteriorated in WC2 and WC3, relative to WC1. No difference was found between WC2 and WC3. Stride length decreased with light touch as compared to simple walking. No significant difference was found between WC2 and WC1. Finally, the amplitude of the CoM in AP direction significantly increased in WC2 relative to WC1. No effect of light touch was found. These results suggest that using a cane deteriorates gait parameters, independent of the type of use. Notably, only cane use as mechanical support improves the control of the center of mass in the anteroposterior direction. The question remains however of whether a longer period of familiarization of cane use could result in positive effects.

P-551
Elderly falls in Turkey: A review

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Introduction: Falls which are important health problems of older adults result in medical and socio-economic burden. This problem may cause to increase in mortality rates, disability and dysfunction, anxiety and depression, loss of confidence, and post-fall syndrome and reduced quality of life among the elderly people. This review provides an overview to studies about elderly falls in Turkey.
Methods: A literature search (2006–2017) was carried out, using MEDLINE, CINAHL, Pub Med, Science direct, Web of Science, Scopus, Cochrane library, Turkish Medical Index and related institutional websites. Key words included "Older adults", "Elderly", "Falls".
Results: It was determined that the studies were conducted between 2006 and 2017; a prospective study was about identifying risk of falls in elderly, a cross-sectional study was about complete comprehensive geriatric assessment and questioned for fall history, three of the descriptive study was about evaluation of balance in elderly fallers and frequency, features, and related factors for falls in a group of subacute stroke patients, two prospective, single-blind, randomized and controlled trial was about comparison of the effectiveness of programmes on older adults at risk of falling.
Conclusions: Especially we realized that it was a important problem in Turkey and there was insufficient as a number of studies. This review explored that we need more studies about falls in geriatric patient Turkey. It could be a reference for future studies.

P-552
Elderly people as vulnerable group in disasters

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Introduction: Disasters are extraordinary and catastrophic events that occur somewhere in the world every day. The World Disasters Report noted a 60% increase in disasters in the last decade. Disasters result in high numbers of deaths and injuries, and economic loss. Elderly people are among the most vulnerable population for disasters. This review provides an overview to relevant literature on elderly people as vulnerable group in disasters.
Methods: A literature search (2000–2017) was carried out, using MEDLINE, Pub Med, Science direct, Scopus, Cochrane library, Turkish Medical Index and related intuitional websites. Key words included "Older adults", "Elderly", "Disasters", "Vulnerable groups".
Results: Several studies have found that older adults are more affected by disasters compared with younger people. Disaster statistics frequently demonstrate higher mortality and morbidity rates for older adults. In the 2011 Japanese Tsunami, 77% of died people were elderly. This group is more vulnerable to the negative impacts of disasters due to biological, psychological and social

changes associated with aging. Having the highest prevalence rates for multiple chronic conditions, limitations in activities of daily living, physical and cognitive disabilities, and sensory impairments makes older adults particularly vulnerable to physiological stresses during disasters.
Conclusions: Despite greater vulnerability to disasters, most fatalities, injuries, and damage caused by disasters are preventable. Preparing older adults for disasters with comprehensive disaster management plans may improve the health-related quality of life of older people and, thereby may reduce the damage that occurs in disasters.

P-553
Engaging older people with health data and technologies – a citizen engagement project

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Introduction: Engaging older people with health data and technologies research is challenging. We designed a public engagement project that aimed to capture older people's view through a novel technique know as "community reporting". Community Reporters (CR) is an open platform, global interface that allows members of the public to upload their personal stories as short video recordings onto the web.
Method: CR training was held over a 6-week period. Participants were taught to create, edit and upload their own videos. Their first CR project was based on the "health data" theme. Participants were also provided with "smart watches" (accelerometer based activity trackers) and encouraged to create videos documenting each others experiences.
Results: All 18 participants created video content despite variable familiarity with technology. Over 30 videos are available to view on the CR website (https://communityreporter.net, datasaveslives project). Motivators to engagement with health data and technology included: intrigue into personal data, a desire to collect objective data to inform health professionals, and perceived benefit of the devices as part of a positive personal attitude to health. Trepidation related to unfamiliar technologies was a common theme, with many participants highlighting the need for dedicated support in any future research projects. A survey of participants whom undertook the CR training reported the programme was both enjoyable and worthwhile.
Conclusions: This project has highlighted multiple motivators and barriers to engagement with health data and technologies research by older communities. The CR scheme can be used as an effective public engagement technique.

P-554
European pattern of pleasure for elderly: A cross-sectional study about well-being representations

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Introduction: Since a few years concepts such as "ageing in health", "ageing with success", ageing with "high function level" or "ageing well" are frequently used.
Objective: The main goal of our survey was to describe the representation of pleasure and their patterns in the population over 65 years old in 4 European countries. The second aim of our study was to create a pattern of representation by country in the elderly population to individualize, for each country analyzed, their own features.
Results: Our results showed different typology concerning the way of "living Well, ageing Well" and also more or less surrounded by relatives. The geographic typology of approach enables us to differentiate specific profiles from "fragile and aged" to "familial hedonist" with, in the middle, the "sociable" and the "independent" ones.
Discussion: Well ageing is a large definition depending on various items including the state of mind. Designing a category in which the patient could be placed, could lead to a better global health caring. As a preventive action, public health politicy could be including those descriptions to improve the well ageing of elderly.

P-555
Evaluation of osteoporosis among inpatients with hip fracture – a quality improvement intervention

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Background: Osteoporosis is an undertreated condition in Sweden. 12% receive bone-specific treatment following an osteoporosis related fracture, according to The National Board of Health and Welfare.Geriatric Medicine Mölndal (GER-SU/M) is the center for all hip fractures (HF) at Sahlgrenska University Hospital (SU), a 2000-bed teaching hospital in Western Sweden.Fracture liaison service (FLS) is a model of care to identify persons with osteoporosis after a low impact fracture. An FLS was introduced at SU in 2014 and was extended to cover hospitalized HF patients at GER-SU/M in 2015. The aim of this study was to evaluate the impact of a basic FLS, consisting of a standard protocol for blood chemistry tests and flowcharts to support individualized treatment recommendations, on the quality of osteoporosis care after HF.
Methods: We performed reviews of medical records of all HF patients in defined periods comprising 12–16 weeks/year 2015 (year 1) and 2016 (year 2), with December 2014 considered baseline. Outcome was defined as number of documented osteoporosis assessments and bone-specific treatment at discharge.
Results: The proportion of documented osteoporosis assessment was 24% (10/42) at baseline, increased to 82% (293/359) in year 1 and to 93% (224/242) in year 2 (p-value for trend <0.001). Treatment rates were 9.5% (4/42) at baseline, 18% (64/359) in year 1 and 29% (70/242) in year 2 ($p<0.001$).
Conclusions: After introduction of the FLS the number of osteoporosis assessments among patients with HF has significantly increased, as well as the proportion of in hospital initiated treatments.

P-556
Exercise patterns in older adults randomized to moderate- or high- intensity training: The Generation 100 study

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Introduction: Few studies have investigated how older adults exercise when they are not under controlled laboratory settings. The aim of this study was to describe the exercise patterns among older adults randomized and instructed to perform moderate- intensity

training (MIT) or high- intensity training (HIT) over a one year period.
Methods: Frequency, rating of perceived exertion, type, location and social setting of exercise were assessed using exercise logs from 618 older adults (70–77 years, 291 women) randomized to MIT or HIT. Participants completed exercise logs after each exercise session they performed during one year.
Results: The mean number of exercise sessions per week was 2.2±1.3 in both training groups with 1.3±0.8 versus 0.4±0.5 performed with high intensity in HIT and MIT, respectively. Walking was the most common type of exercise in both groups, but MIT had a higher proportion of sessions with walking and resistance training than HIT, while HIT had a higher proportion of sessions with jogging, cycling, swimming, dancing and combined endurance and resistance training. Exercise location was most often reported to be outdoors in both groups, but HIT exercised more frequently at a gym or sports facility than MIT. Both groups performed an equal amount of exercise sessions alone and together with others.
Conclusions: This study provides new knowledge of how older adults included in an exercise randomized controlled trial exercise in a free- living situation. Our findings indicate that older adults randomized to MIT versus HIT have different exercise patterns.

P-557
Growth hormone, insulin-like growth factor-1, insulin resistance and leukocytes telomeres length as determinants of vascular aging in subjects free of cardiovascular diseases

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Introduction: Increased carotid-femoral pulse wave velocity (c-f PWV), intima-media thickness (IMT), atherosclerotic plaques number (ASP) are considered as important aspects of arterial aging - basis for cardiovascular diseases (CVD). Growth hormone (GH) and insulin-like growth factor (IGF)-1 deficiency and "short" leukocytes telomeres length (TL) have been proposed as independent predictors of CVD. The aim of this study was to determine the role of GH/IGF-1 in their interaction with TL and cardiovascular risk factors in vascular aging process.
Methods: The study group included 303 participants (104 males and 199 females) mean age 51.8±13.3 years, free of known CVD, diabetes mellitus, antihypertensive and lipid lowering medications. IMT and ASP were determined by ultrasonography in both left and right carotid arteries. c-f PWV was appreciated with the help of SphygmoCor (AtCor Medical). TL was determined by qPCR. Serum IGF-1 and GH we measured using immunochemiluminescent analysis.
Results: Through multiple linear regression analysis, in "younger" group (mean age 40.9±8.7, n=144) unlike the "older", GH/IGF-1 were significantly associated with arterial wall characteristics. C-f PWV was positively associated with HOMA-IR ($p<0.0001$) and negatively associated with GH ($p=0.03$) and TL ($p=0.004$). IMT was positively associated with HOMA-IR ($p=0.0001$), negatively associated with GH ($p=0.05$) and IGF-1 ($p=0.004$). ASP was positively associated with HOMA-IR ($p=0.0001$) and negatively associated with IGF-1 ($p=0.045$).
Conclusions: 1. GH/IGF-1 along with insulin resistance and TL determine the main parameters of arterial aging in healthy participants2. GH/IGF-1 axis demonstrates vascular protection in aging

P-558
Healthy Ageing Through Internet Counselling in the Elderly (HATICE) – an ongoing randomised controlled trial

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Background: Cardiovascular disease (CVD) and dementia share several risk factors. It is unknown whether treatment of the latter reduces the risk of dementia. eHealth offers opportunities for large-scale delivery of prevention programs encouraging self-management of risk factors. We aim to investigate whether a multi-domain internet intervention to optimise self-management of cardiovascular risk (CVR) factors can reduce the risk of CVD, cognitive decline and dementia.
Methods: We developed and currently test in the Netherlands, Finland and France an internet intervention in a multi-centre, prospective, randomised, open-label blinded endpoint trial with 18-months intervention in persons aged 65 and older with increased CVR. The intervention group uses an interactive internet platform with coach support to stimulate a healthy lifestyle. The control group has access to a static platform. Primary outcome is a composite score of systolic blood pressure, low-density-lipoprotein and body mass index. Main secondary outcomes include effect on CVR factors, incident CVD, mortality, cognitive functioning, mood and cost-effectiveness.
Results: Between March 2015 and September 2016 we recruited 2725 persons. Median age is 69, 40% has higher education and 30% has a history of CVD. During the first 12 months of the trial, adherence to the intervention was good with over 50% logging in at least 5 times per 3 months. Follow-up will end in January 2018.
Conclusions: A large multi-national trial using an internet intervention to improve CVR profile is feasible. Whether this leads to a reduced risk of CVD and dementia is under investigation. Final results are expected in mid 2018.

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Heart structure and function in centenarians: preliminary results of Moscow Centenarian study

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Objective: Centenarians are still represent an underinvestigated population. There is large body of data on heart structure and function changes with ageing, but very few data available for centenarians. The aim of the Moscow Centenarian Study (NCT02876809) was to perform complex evaluation of centenarians living in Moscow. Preliminary results of echocardiograhy are reported in this abstract.
Methods: Echocardiography was performed with a portable device In 64 (8 male) aged from 97 to 105 years. Medical history including history of arterial hypertension, myocardial infarction, heart failure and current treatment was collected during interview with centenarians, their relatives/ carers and from medical notes if available. Aorta diameter, left atrium size and volume index (LAVI), systolic and diastolic dimensions and volumes of left ventricle (LV), LV mass index (LVMI), ejection fraction (EF) were evaluated. LV hypertrophy was diagnosed if LVMI was >95 g/m^2 in females or >115 g/m^2 in males, concentric LV geometry if relative wall thickness (RWT) >0,42. LV-arterial coupling was calculated as Ea/Ees, Ea=end systolic pressure (ESP)/stroke volume, Ees=ESP/end systolic LV volume. Ea/Ees 0,5–1,2 was considered as optimal. The data are presented as Mean+SD Results. Mean aortic root diameter was 3,5±0,34 cm and in 8 (12,5%) subjects exceeded 3,8 cm. Mean LAVI was 41,8+14,3 ml/m^2 and was moderately-to-severe abnormal (>42 ml/m^2) in 28 (43,75%) subjects. Normal LVMI and RWT was found in 13 (20,3%) centenarians. Concentric LV remodeling was observed in 15 (23,4%), concentric LVH 24 (37,5%), eccentric LVH in 12 (18,7%). Two subjects had EF <40% (history of MI in both), 62 subjects had EF >50%. Structural abnormalities typical for heart failure with preserved EF (LV end diastolic volume <97 ml/m^2 and LAVI>34 ml/m^2 or LVH) was observed in 46 (71,9%) centenarians. Ea/Ees <0,5 was observed in 11 (17,2%) subjects, and Ea/Ees>1,2 - in 2 (3,1%) subjects.
Conclusion: LV structure of centenarians is characterized by concentric LV geometry in 50,9%. Despite high prevalence of the heart structure typical for heart failure with preserved EF majority of centenarians have normal values Ea/Ees.

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Hip fracture in older age caused by a decline of cognitive and cardiovascular functions

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Introduction: Health status is positive related to cognitive and cardiovascular functions in older age. A decline of this performance lead to hip fractures often triggered by falls. Evaluating the potential differences between patients of femoral fracture (FF) and coxarthrosis surgery (CS) cognitive and cardiovascular functions including fall analyses were studied.
Methods: Men and women according to hip replacement due to FF after falls and CS recruited at the Medical Clinic Centre Graz were investigated from October 2016 till May 2017. Testing time was between the third and tenth day after surgery. Data were collected, following a special timeline and circadian rhythms, using a cognitive performance battery (CPB) – Stroop Test. Continuous ECG recordings during performance were conducted associated with data collection in BMI, wade circumference, fear and frequency of falls.
Results: 86 patients between 60–85 years with FF (n=25), CS (n=36) and control group (n=25), mean age+SD=73.1±7.0 years were tested. Results of CPB indicated significant differences in the FF group compared to the other groups testing the interference of Stroop Test, H(2)=25.995, p<0.00 as well as heart rate variability parameters like average RR (ms), H(2)=15.149, p<0.001. Furthermore frequency and fear of falls were significant higher, BMI and wade circumference significant lower in the FF group.
Conclusions: Results of this pilot study show significant differences among the groups related to cognitive and cardiovascular functions. Based on these preliminary findings we are encouraged to test more patients detecting potential distinctions to lower risk of falls and fractures in the future.

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Human longevity – Are we ready to go for it?

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Introduction: Secret of longevity in humans is a burning but still unanswered question.
Methods: CHARMED Project, designed as a Research and Innovative Staff Exchange (RISE), intends to characterize a green microenvironment of the small community of the Marches Region in Italy (Nemi town), and study its impact on health and well-being of older adults as a way forward for health tourism dedicated to and tailored for old people. 4-step scientific research is expected: 1) To characterize local ecosystem of Nemi (the climate, air quality, noise levels and flora- with the use of, inter alia, optical spectroscopy and UV-Vis and NIR spectrometers) and its impact on health and quality of life of elderly people from the local community (the customized questionnaires, salivary and blood samples for immune status and stress monitoring, function and blood tests); 2) To analyze target population of elderly visitors to Nemi and to identify their specific needs (health analytics, oxidative stress markers and immune components); 3) To implement landscaping and urban infrastructure changes, as well as social and therapeutic horticulture, food lessons and dietary counseling, and physical exercises personalized for elderly visitors; 4). To analyze the economic impact of implemented strategies and to calculate health cost benefits.
Results and conclusions: We aim to achieve an innovative transfer of knowledge and interactions between academic experts as well as different organizations from non-profit, public and industry, to create an inventive social-economic infrastructure for health tourism based upon environmental-impacting factors for improving the physical and psychological well-being of older individuals.
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P-562

Impact of environmental modifications on the quality of life of residents with dementia

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Introduction: An ongoing initiative which carries out transformations and adaptations of spaces in our care homes so that these areas increasingly respond to the necessities and functional, environmental and comfort requirements of residents living with dementia, their families, as well as the people who work in them.

Methods: Many improvements have been carried out in many care homes, some small, others more ambitious, from refurbishments of bedrooms, bathrooms, dining rooms and lounges to the creation of new areas such as terraces, bathrooms, staff rooms and adaptations of dementia floors.
Results: Dementia care means a continued reformulating global model, to adapt dementia floors to the necessities of our residents with dementia, covering: the adaptation of the physical environment in common areas, corridors, creation of Snoezelen rooms (multisensory rooms), bathrooms and bedrooms. A pilot programme in a care home in the dementia floor has undergone the following changes:

- Adaptation of the corridors (materials, lighting etc).
- Elimination of the nurses' station, (tablets are now used for this control), in order to create a rest point simulating a natural space with benches to rest on and also to receive therapies, as well as having natural sounds emanating from inbuilt speakers at all times. The pillars are decorated in such a way as to simulate trees and on touch seem real – they even have moss interspersed with the bark.
- Concealment of elements which are susceptible to generating stressful situations, like lift doors and emergency exits.

Conclusions: An environmental refurbishment centered on the dementia residents needs results in a reductions of critical incidents (falls, severe consequences, a reductions od psychoactive drugs) that allows a better care and an improvement of quality of life of residents.

P-563
Investigation of cognitive function in the oldest-old using ACE-III

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Introduction: Though ageing is the greatest risk factor for the onset of dementia, some of the oldest-old have comparatively well-preserved cognitive function and appear capable of performing complex tasks. We used Addenbrooke's Cognitive Examination-III (ACE-III) to investigate cognitive function in the oldest-old, which has not been fully elucidated.
Methods: ACE-III was administered to community-living oldest-old (aged 90 years and centenarians) who consented to participate.
Results: Participants were eleven subjects in their 90s, with a mean age of 93.2 years (range, 92–95 years) and 7 centenarians, with a mean age of 106.6 years (range, 105–108 years). The 90s group scored high on the mini-mental state examination, confirming the absence of dementia. The mean total ACE-III score of the 90s group was 88.1, which was above the cut-off score indicating dementia; that of the centenarians was 51.9, which was below the cut-off score. All subjects were able to perform visual counting (a visuospatial subtest involving counting the number of black dots without pointing), with a mean correct response rate of 95.8%.
Conclusions: The scores on the five cognitive domains of ACE-III in the 90s group indicated almost an intact cognitive functioning except for fluency and memory, and in centenarians, an overall decline with a particularly marked decrease in memory. Only visual counting had a high correct response rate, suggesting that the visual field of the oldest-old was relatively unaffected by ageing and brain degeneration. This study showed details of cognitive function in the oldest-old using ACE-III.

P-564
Is it feasible to evaluate ageing process by creating a single health metric? The ATHLOS Project approach

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Introduction: Ageing is a complex phenomenon that is unique for each individual. It can be viewed as a continuous accumulation of diseases, but it can also be approached in a more comprehensive way taking into account the dimensions that are included in the health quantification approach, as proposed by WHO.
Methods: We used a two-stage factor analysis approach in 11,906 participants from the English Longitudinal Study of Ageing (ELSA), which included 45 items that fit with the proposed minimal generic set of variables defined in the WHO International Classification of Functioning (ICF). Evidence for a general factor underlying first-order factor were obtained. Then, a Bayesian multilevel Item Response Theory (IRT) approach was applied to create the health metric using the first six waves of the study.
Results: A single metric was developed, where variables of functioning, mobility, senrorineural, emotional and cognitive aspects have been proved to be the most important. The five first-order factors extracted explained a 63.1% of the total variance.
Conclusions: Although these variables are not new for geriatricians, since some of them are already evaluated during the Comprehensive Geriatric Assessment, the current work revealed that it is feasible to create a health metric based on a broader conceptualization of health characteristics. This can also be useful since it can help to quantify the effects of clinical and public health interventions and credibly evaluate their impact in the ageing process.

P-566
Lifestyle-Integrated Exercise Interventions delivered by use of ICT or an instructor - PreventIT Feasbility RCT

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Introduction: The European population is rapidly ageing. Physical activity (PA) can improve health and function and reduce disability at old age. Older adults are at risk of being inactive, and activity declines significantly at time of retirement. To be able to reach recommended activity levels, behavioural change is needed. The PreventIT consortium has adapted an existing lifestyle intervention programme to home-dwelling young older adults who are recently retired (aLiFE). Furthermore, we have transferred the aLiFE programme to a mobile health application system based on smartphones and smartwatches, called eLiFE. The aim of the study is to investigate whether it is feasible to have young older adults between 61–70 years perform the aLiFE and eLiFE versus a control group.
Methods: This is an ongoing multi-centre randomised feasibility trial with three sites, Trondheim, Amsterdam, and Stuttgart. Eligible people are invited to take part in a three-armed feasibility RCT, with two behaviour change programmes (aLiFE and eLiFE) focusing on muscle strength, balance, and PA, and a "usual care" control group who receive generic activity advice Each site will include participants until 60 at each site are randomised.
Results: 9500 invitation letters have been distributed. 250 people have undergone risk assessment. At present 63 participants have been randomised, and the first participants have started the intervention.
Conclusions: Adherence and delivery of PA interventions are a challenge. In this trial we will get more knowledge about the

feasibility of two newly developed home-based interventions for a relatively young and healthy group of older adults.

P-567
Oxidative stress and ageing

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Introduction: Nowadays, life expectancy has substantially increased due to advances in public health, medicine and nutrition. Ageing results from the accumulation of multiple deleterious changes predisposing the individual to diseases and eventually death.
Aim: To understand the physiological process of ageing with particular reference to the role of oxidative stress as proposed by the Free Radical Theory of Ageing.
Methodology: A literature review was conducted to unveil the insights of the mechanisms of ageing. A number of theories have been proposed to suggest the physiology underlying this phenomenon. This study focused on The Free Radical Theory of Ageing since it is considered as the most prevalent theory to elucidate the molecular mechanism of ageing.
Results: The Free Radical Theory of Ageing identifies free radicals as the cause of time-related changes attributed to ageing. Multicellular organisms necessitate high energy levels to drive the biological processes making the cell dependent on oxidative phosphorylation. This produces a wide range of radical and non-radical oxidants which are responsible for cellular damage. Damage to both nuclear and mitochondrial DNA induced by free radicals includes nitration, deamination of bases, deletion of purines and damage to DNA repair system. In order to cope with the bombardment of reactive oxygen species, cells have developed an antioxidant system composed of enzymatic and non-enzymatic components as a defence mechanism to maintain a redox state and safeguard against the toxic effects resulting from oxidative stress.
Conclusion: The Free Radical Theory stood the test of time as it is fundamental for the on-going research on ageing and lays fertile area for future research. This revolution in understanding the bodily response to oxidative stress leads to therapeutic and pharmacologic interventions to retard the development and progression of age-related conditions.

P-568
Participation in and adherence to an internet-based multidomain trial for the prevention of cardiovascular disease and cognitive decline in French, Finnish and Dutch older adults: data from the ACCEPT-HATICE ancillary study

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Introduction: We compared reasons for participating in an eHealth prevention trial, and adherence to the intervention in older adults from Finland (FI), France (FR) and the Netherlands (NL).
Methods: The 18-month "Healthy Ageing Through Internet Counselling in the Elderly" (HATICE) trial is testing an internet-based lifestyle intervention, with coach support, for prevention of cardiovascular disease and cognitive decline in 2725 European participants aged ≥65 years with cardiovascular risk factors/disease. For the ACCEPT-HATICE ancillary study, 341 participants completed an online questionnaire at the time of recruitment to explore determinants of participation.
Results: Participants from the three countries differed by age [median 67 (FI), 70 (FR) and 69 (NL) years, $p<0.001$], social support [median score (/12, higher scores represent more social support): 11 (FI), 9 (FR), 9 (NL), p=0.003], and locus of control [median "powerful others" external locus of control score (/12, higher scores indicate greater attribution of health to healthcare professionals): 7 (FI), 9 (FR), 8 (NL), $p<0.001$]. 51% of French participants stated that contributing to scientific progress was their main reason for participating, compared to 23% and 37% of Finnish and Dutch participants, respectively, while 24% of Finnish participants stated that receiving better medical care was their main reason for participating, compared to 11% and 13% of French and Dutch participants (p=0.009). Adherence to the intervention also differed between countries [proportion of subjects logging in ≥10 times in the first 6 months: 60% (FI), 79% (FR), 65% (NL), p=0.030].
Conclusions: Reasons for participation and intervention adherence differed by country, probably due to differences in participant characteristics, cultural factors, recruitment methods, and healthcare systems.

P-569
Physical and mental determinants related to the first fall in healthy old people

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Introduction: Falls and their consequences are a public health problem. To discern people those at risk to experiment a first fall is a key issue. The objective of this work is to highlight the physical or mental determinants of falls in healthy old people.
Methods: 105 healthy community-dwelling old people, without fall history, were recruited in a 2-years longitudinal study and screened for autonomy, fear of falling, visual impairment, co-morbidities, drugs, physical activities, nutritional status, body composition, grip strength, physical performances, mood and cognitive disorders and gait parameters. Falls incidence was measured every 3-month by a phone contact. SAS statistical package (version 9.4) was used. Fallers and non- fallers were compared by one-way analysis of variance (ANOVA) or by the Kruskal-Wallis test for quantitative parameters and by a chi-squared test for qualitative parameters. Results were considered statistically significant for $p<0.05$.
Results: At the end of the 2-years follow-up 35 people experienced at least one fall. The incidence of falls was associated with lower IADL (instrumental activities daily living) score (p=0.014), lower SPPB (short physical performance battery) score (p=0.015), lower fast walking speed (p=0.035), lower step length in comfortable walking condition (p=0.035) and lower step length in fast walking

condition (p=0.01) at inclusion in faller people. Age, sex, drugs, co-morbidities, visual impairment, mood and cognitive status were not significantly different between the groups (p>0.05).
Conclusion: At inclusion and before the first fall, fallers and non-fallers showed different physical characteristics and daily activities. Multivariate analysis will be assessed to build an explicative model.

P-570
Prevention of balance loss and frailty

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Introduction: Nymbl Science defines and measures a personalized "balance index" which incorporates both physical balance and cognitive impact on balance, then recommends specific, customized treatment to improve perception, cognition and action in order to prevent balance loss and frailty.
Method: The balance index is made of 2 numbers, each from 0 to 100. The first evaluates postural stability and strength, the second evaluates cognition in performing "double tasks" (e.g. counting backward or playing a video-game while maintaining a posture during a given time). Each of double tasks reinforces the effect of the other in order to both strengthen the musculoskeletal system and simultaneously engage the brain to stimulate brain plasticity. Nymbl uses a smart phone's internal motion sensors plus an external sensor worn at the ankle. The Nymbl mobile app directs the tests, analyses sensor's data, guides personalized training, and communicates data to the Cloud for further followup.
Results: Preliminary studies on a cohort of volunteers indicates excellent results based on significant improvement of balance index numbers after only 21 days of training. Full validation study is underway at the Imperial College of London led by Professor Alison McGregor.
Conclusion: Assuming that balance control is pivotal to maintaining and improving quality of life, an innovative concept such as this one presented by Nymbl Science is remarkable and significant to prevent falls and improve function and neurocognition.

P-571
Psychological predictors and consequences of hearing health behaviors in older adults

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Introduction: Hearing loss is a common chronic condition affecting older adults in Western populations [1,2]. Even if older adults could benefit from hearing aid use, they are reluctant to wear them [1]. The purpose of the present study was twofold: a) to examine whether older adults' implicit theories regarding the modifiability of abilities in general would predict their hearing health behaviors; and (b) to assess consequences of these behaviors on subjective aging.
Methods: One hundred and sixty-three older adults (Mean age =68.62, SD =5.40) completed, among other questionnaires, questions assessing their implicit theories of ability (i.e., seeing general abilities as fixed vs. improvable with effort [3]) and their subjective age (i.e., felt age, do age, look age, and interest age [4]). They also reported their perceptions of the benefits of various hearing health behaviors for slowing the effects of aging (i.e., getting their hearing tested and using hearing aids) as well as their intentions to engage in those behaviors.
Results: We found that the more older people considered that abilities are alterable, the more they perceived hearing health behaviors as being beneficial, which in turn increased their intentions to engage in these behaviors. Also, the greater their intentions, the younger subjective age they reported.
Conclusions: These relationships between implicit theories, hearing health behaviors, and subjective age are particularly important to take into account. Indeed, neglecting hearing problems and experiencing an older subjective age may have detrimental health-related outcomes over time [5, 6].
References:
[1] Feder, K., Michaud, D., Ramage-Morin, P., McNamee, J., & Beauregard, Y. (2015). Prevalence of hearing loss among Canadians aged 20 to 79: Audiometric results from the 2012/2013 Canadian Health Measures Survey. Health Reports, 26(7), 18–25.
[2] Lin, F. R., Thorpe, R., Gordon-Salant, S., & Ferrucci, L. (2011). Hearing loss prevalence and risk factors among older adults in the United States. The Journals of Gerontology, Series A: Biological Sciences and Medical Sciences, 66(5), 582–590. doi: doi:10.1093/gerona/glr002
[3] Dweck, C. S. (1999). Self-theories: Their role in motivation, personality, and development. Philadephia, PA: Psychology Press.
[4] Kastenbaum, R., Derbin, V., Sabatini, P., & Artt, S. (1972). "The ages of me": Toward personal and interpersonal definitions of functional aging. The International Journal of Aging and Human Development, 3(2), 197–211.
[5] Bainbridge, K. E., & Wallhagen, M. I. (2014). Hearing loss in an aging American population: Extent, impact, and management. Annual Review of Public Health, 35, 139–152. doi: 10.1146/annurev-publhealth-032013–182510
[6] Kotter-Grühn, D., Kornadt, A. E., & Stephan, Y. (2015). Looking beyond chronological age: Current knowledge and future directions in the study of subjective age. Gerontology, 62(1), 86–93. doi: 10.1159/000438671

P-572
Regular exercise is associated with greater physical performance in elderly adults

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Introduction: The positive effect of physical training in healthy elderly people is well documented, however there is little understanding of the aspects of performance contributing to this benefit. The aim of this study was to evaluate the impact of regular physical activity on muscle strength, and potentially related functional ability in elderly.
Methods: Fifty-eight (31 men, 27 women) non-disabled community-dwellers aged from 75 to 90 years were consecutively enrolled in general practitioners cabinets. They underwent a comprehensive geriatric assessment including physical activity questionnaire especially designed for the elderly, physical function by Short Physical Performance Battery (SPPB), and hand grip strength.
Results: A ccording to the "Questionnaire d'Activité Physique pour les Personnes Âgées" (QAPPA), a group of exercisers (18 men and 11 women) and a group of non-exercisers (13 men and 16 women), the former presenting higher volumes and levels of physical activity, were identified. The two groups were similar for age, BMI, number of daily treatments, and number of previous falls; non-exercisers were likely more smokers and under anti-depressive treatment. The univariate analysis showed that high level of physical activity was significantly associated with a better nutritional status, lower Fried frailty score, faster mean walk speed, higher hand grip strength, and higher SPPB. However, only SPPB was significantly associated with physical activity in multivariate analysis (p<0.001).
Conclusions: This study showed that regular moderate-intensity training is independently associated with an improvement in physical performance in non-disabled community-dwellers aged>75 yrs, suggesting a lower risk of falling.

P-573

Relationships between functional physical fitness cardiovascular variables and quality of life in elderly

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Introduction: The performance of daily activities is crucial to the quality of life in old age, and physical fitness gets significant impact in this context. Cardiovascular variables are very important for morbidity and mortality in the generalpopulation, with particular relevance to the geriatric age group. The challengenowadays is to understand the factors that influence the quality of life, for the humanbeing to live longer without losing autonomy.
Objectives: To study the relationship between functional fitness, anthropometric, hemodynamic and blood variables and quality of life. Furthermore, toinvestigate how these variables predict quality of life of elderly people.
Materials and methods: Twenty participants over 60 years old from thegeriatric ambulatory of city of Cachoeirinha, in Brazil, had physical fitness tests forelderly people and had blood pressure (BP) and body mass index (BMI) measured. They had blood test to determinate lipid and glucose profiles. The quality of life wasassessed with the SF-36v2. Multivariate analysis of techniques of variance and linearregression were also used.
Results: Participants with normal glucose levels had lower BMI ($p<0.05$) than pre-diabetics and diabetics participants. The older adults with normaltriglycerides levels showed lower systolic and diastolic blood pressure ($p<0.05$). Age, sex and BMI explained 31.4% of the SF-36v2. Including systolic blood pressurein the model explanation raised to 43.6% the R2, increasing progressively to 53.8% when lower limbs strength was considered and to 64.7% with variable aerobicresistance.
Conclusion: BMI and BP, particularly systolic, cause great impact on generaland cardiovascular morbidity, as well as in the quality of life for seniors. The lowerlimb strength and aerobic endurance affect decisively their quality of life. The maintenance and optimization of these physical parameters positively impact thefunctional autonomy, and the level of independence of the elderly population.

P-574

Renal ageing and glycation: implication of RAGE

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Introduction: Endogenous advanced glycation end-products (AGEs) are well-studied, especially for their effect on inflammation and fibrosis and possibly on ageing. Nonetheless, these effects have yet to be described for dietary AGE (dAGE). Here, we study whether a prolonged exposure to the dAGE carboxymethyl lysine (CML) can influence ageing in kidneys and whether the receptor for AGEs (RAGE) is a modulator of this process.
Methods: Wild-type (WT) and RAGE−/− male C57Bl/6 mice were fed with a control-diet (BSA) or a CML-rich diet (200 μg CML/g of food) for 18 months. Renal function markers were measured and histological analyzes were performed to assess kidney ageing. Kidney amyloidosis was analyzed by staining, immunostaining and electronic microscopy. Immunohistochemistry was used to characterize amyloidosis and localize CML.
Results: We showed a RAGE-dependent production of CML into kidneys of WT CML mice when compared to RAGE−/− CML mice, with a predominant tubular and endothelial localization. Immunohistochemistry analyzes revealed amyloid deposits involving apolipoprotein A-II (APoAII). RAGE−/− mice were significantly protected against CML-induced sclerosis ($p<0.05$), tubular atrophy ($p<0.05$) and ApoAII amyloidosis ($p<0.01$) when compared to WT CML mice. There is a positive linear correlation between sclerosis score and ApoAII amyloidosis score ($r=0.92$).
Conclusion: We suggest that dCML may induce RAGE-dependant fibrosis, sclerosis and amyloidosis in mice kidneys, aggravating renal ageing. Our data also show a dCML-induced CML production pathway that involves RAGE. Further studies are needed to confirm these data and determine specific signaling pathways.

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Results from a geriatric fall clinic – reduced sensibility and electromyographically identified polyneuropathy

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Introduction: Reduced sensibility is a well-known risk factor for falling and electromyographically (EMG) identified polyneuropathy (PN) is proven to be strongly associated with falls. This study reports data from a Danish geriatric fall clinic and aims to see how common reduced sensibility and EMG verified PN is among elderly fall patients.
Materials and methods: Referred fall patients underwent a standardized multidisciplinary quantitative assessment program. Vibratory sensibility was tested with biothesiometry and tactile sensibility using a monofilament. Persons referred to EMG underwent a standard neurophysiological EMG.
Results: 162 patients were referred throughout 2015. 123 gave informed consent and were included.79 women (64,2%) and 44 men (35,8%), mean age 76,9. Reduced vibration sensibility was found in 74 (60,2%), reduced tactile sensitivity in 31 (25,2%). 27 (22%) had reduced tactile as well as vibratory sensibility. Two of them had already EMG diagnosed PN. Totally 40 of the patients with reduced sensibility were further examined with EMG. Polyneuropathy were verified in 18 (45% of the EMG examined). Totally the frequency of EMG identified polyneuropathy in the study population was 14,6%.
Conclusion: This study shows that reduced sensibility is very common in a geriatric fall population. The results suggest that polyneuropathy is a frequent condition among geriatric fall patients that perhaps should be given more attention in geriatric fall assessment in terms of further examinations i.e. EMG and blood samples to identify potential causes.

P-576

Screening for age-related eye diseases – the impact of costs

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Introduction: Screening for age-related eye diseases can successfully be performed by optometrists via tele ophthalmology. However, in some countries the screening visit has to be paid by the old person themselves. The out-of-pocket cost may deter some from presenting for examination. In other countries the screening is free of charge which might lead to that a wider range of people might attend, many of which do not need to be examined, leading to a "noise" in the system. The aim of the current study was to evaluate the effect of a temporary lowering the out-of-pocket cost for screening examinations for age-related eye diseases.
Methods: During a 2 month campaign with reduced prises for eye examinations, 218 people attended. Demographic data, as well as the proportion of referrals were compared to all examinations in the same setting during the year before as well as to the total

number of the examinations in the country-wide screening system (n=39 517).
Results: The persons examined during the campaign were significantly (p=0.0004) older both compared to the examined persons at the same setting the year before and to the total number in the country. No differences were seen in gender, or the proportion of foreign-born persons. The proportions of first-time visits and referrals were not significantly different between the two samples.
Conclusion: Reduced price attracted somewhat older customers but no difference in morbidity was observed.

P-577
Self-efficacy, gerotranscendence and positive personality traits help in preventing frailty and maintaining a high level of well-being among the oldest-old in Japan: The Arakawa 95+ study

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Introduction: Japan is fast becoming a super-aged society, and its oldest-old population is expected to increase even as the whole population will decrease in next 30 to 40 years. Therefore, it is important to ascertain whether the oldest-old will continue to live with a high level of well-being and enjoy successful ageing in a residential district. In general, people tend to become closed, sceptical and introverted with ageing. It is linked with frailty, that is decrease in walking ability, easy fatigability and weight loss. Past study reported that preventing frailty helped the oldest-old live a life with high level of well-being. In this study, we aimed to identify factors for preventing frailty among the oldest-old by examining the relationship between frailty, self-efficacy, gerotranscendence and personality characteristics.
Methods: Subjects are all the oldest-old residents, aged 95 years or older, live in Arakawa ward of Tokyo. Of 542 eligible subjects, 168 (31%) answered the questionnaire survey, 40 provided more detailed responses to the questionnaire survey, and 26 accepted visiting investigations.
Results: Inability to walk 400 meters was related with awareness of forgetfulness, low frequency of meetings with people, low frequency of going out, low self-efficacy and low extraversion. In addition, easy fatigability was correlated with neuroticism and inversely correlated with gerotranscendence and agreeableness.
Conclusions: Our study suggested that formation of self-efficacy, gerotranscendence and positive personality traits helped prevent frailty and contributed to acquisition of a high level of well-being among the oldest-old in Japan.

P-578
Sleep quality of elderly people living in their homes

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Introduction: Because of the positive results in the field of technology and health, human life has been prolonged and life expectancy from birth has been reported to be 75 years. Sleep is the most basic daily life activity with its physiological, psychological and social aspects affecting human health. Sleep has become important in the growing elderly population as it is important in all age groups.
Methods: A literature search (2000–2017) was carried out, using MEDLINE, Pub Med, Science direct, Scopus, Cochrane library, Turkish Medical Index and related institutional websites. Key words included "Elderly", "Sleep quality", "Sleep problems".
Results: The prevalence of sleep disturbance is up to 35% in those aged 60 years and over, 50% in 65 years and over. The causes of sleep problems in the elderly; loss of melatonin secretion, loss of consciousness, loneliness, rest homes and retirement. In terms of quantity-quality of sleep problems of elderly individuals; slow wave, decrease in efficiency, phase shift and increase in divisions. When sleep problems are examined; drowsiness, persistence of difficulty, early waking and daytime drowsiness.
Conclusions: The consequences of sleep disturbance; daytime sleepiness, fatigue, depression, anxiety, irritability, increased pain sensitivity, muscle tremors, immune suppression, decreased mental function, health and functional impairment. As a result, it is observed that elderly people live more insomnia and this affects healthy aging adversely. Holistic approach should be promoted by putting the evaluation of sleep qualities of elderly individuals into routine applications.

P-579
Studying prognostic factors in people over 90 years

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Introduction: Several studies show that age itself is not an independent factor in survival; however, we usually limit the use of diagnostic and therapeutic resources in people over 90 years. The lack of studies in these patients makes the usual scales not suitable in this population.
Objectives: Analyze the prognostic survival parameters and characteristics in people over 90 years.
Methods: A prospective longitudinal cohort study with people from the outpatient clinic over 90 years during 2015 and 2016 in Huesca. Analytical data, comorbidity, admissions, ER attending, primary care visiting and drug assessments were recollected. Statistical analysis was done with SPSS 23.
Results: A total of 288 patients. Average age: 94.5. 70.8% were women. Mean Barthel index: 70. Charlson index 2.7. Mortality per year: 18.7%. Comorbidities: HTA 78.5%, DM 29.2%, dyslipidemia 45%, heart failure 23.6%, stroke 18%, ischemic heart disease 13.5%, cancer 22%, anemia: 35.7%, renal failure 64.2%. Drug number: 6.7. Number of admissions per year 0.5. Emergency care admission in a year 1. Primary care visits per year 5.6. We found an increase in mortality rate trough a year in people with anemia ($p<0.001$), low albumin levels (p=0.03), male gender (p=0.03), high RDW, (p=0.001), kidney impairment verified by HUGE formula (p=0.003), suffering cancer (p=0.003) or CHF (p=0.001).
Conclusions:
- In this study, we didn't find a direct relationship in mortality between having a high Charlson index in people over 90 years.
- The amplitude in red cell distribution [1], could be useful as a prognostic factor in elderly people. With patients with renal impairment, applying the HUGE2 formula can be helpful

References:
[1] M. Olivares Jara,E. Santas Olmeda,G. Miñana Escrivà,P. Palau Sampio,P. Merlos Díaz,J. Sanchis Forés Ancho de distribución eritrocitaria y riesgo de mortalidad en pacientes con insuficiencia cardiaca aguda Med Clin (Barc), 140 (2013), pp. 433–438
[2] Heras M, Fernández-Reyes MJ, Guerrero MT, Sánchez R. Evaluación de la función renal en el anciano con la fórmula HUGE. Rev Esp Geriatr Gerontol. 2013;48:94–95

P-580
Telemonitoring to improve nutritional status and physical activity in older adults: a process and effect evaluation

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Introduction: An optimal nutritional status and physical activity are essential for successful aging. However, more than 40% of the

European older adults are at risk of malnutrition and physical activity levels decline with age. As health care resources are scarce, increasing attention is being paid to novel technologies that support healthy ageing. This study aims to evaluate an intervention directed at telemonitoring of nutritional status and physical activity among Dutch community-dwelling older adults.
Methods: In 2016 and 2017, a non-randomized controlled study was conducted among 217 older adults (65+). The six-month intervention comprised telemonitoring of nutritional status, body weight, appetite, diet quality, and physical activity, feedback via a television channel, and when necessary guidance by a nurse or dietician. The control group received usual care. Outcome measures were nutritional status, diet quality (measured as compliance to the Dutch dietary guidelines and scored on a scale from 0–10), quality of life, functional status, physical performance, behavioural determinants, and process indicators.
Results: Preliminary analyses showed significant improvements in diet quality. The scores for intake of vegetables improved (1.6, 95% confidence interval (CI): 0.8–2.4), as well as for intake of fruits (1.1, 95% CI: 0.6–1.7), dietary fibre (1.1, 95% CI: 0.7–1.4), and protein (1.2, 95% CI: 0.1–2.3). More insights into the effectiveness of the telemonitoring intervention will follow.
Conclusions: This study will show the feasibility and effectiveness of a telemonitoring intervention concerning nutrition and physical activity in community-dwelling older adults, thereby contributing to the knowledge on how technology can assist in healthy ageing.

P-581
Telomere length and telomere attrition in chronic oxidative stress and inflammation

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Introduction: Short telomere length (TL) is associated with atherosclerotic cardiovascular diseases (ACVD) and increased mortality. Inflammation and oxidative stress are believed to play a key role in telomere attrition and could explain the association between short TL and ACVD. The objective was to measure TL in skeletal muscle (MTL), which serves as a proxy of TL at birth, and in leukocytes (LTL) in three situations of increased oxidative stress and inflammation: ACVD, severe renal failure (SRF: clearance$<$30 ml/min) and morbid obesity (MO: BMI$>$40 kg/m^2). The LTL/MTL ratio represents life-long telomere attrition.
Methods: MTL and LTL were measured by Southern blot in samples from 158 individuals (42 women) undergoing surgery (France, n=71; Greece, n=52; and Lebanon, n=35). Four groups were enrolled: control (CTL, n=44), ACVD (n=62), SRF (n=47) and MO (n=34).
Results: In all subjects, MTL was longer than LTL. LTL and LTL/MTL were shorter in ACVD patients ($p<0.01$, $p<0.05$ respectively vs CTL). No differences were observed between the groups of MO and SRF and the CTL.
Conclusions: This study confirms the presence of shorter telomeres in ACVD patients. By contrast, in two other situations with high chronic oxidative stress and inflammation, TL and TL attrition were not affected. We suggest that shorter telomeres observed in subjects with atherosclerotic disease are not the result of increased telomere attrition by oxidative stress and inflammation but might rather antecede the clinical manifestation of the disease.

P-583
The "Centre for Memory and Mobility" in Luxembourg – A comprehensive approach to prevent age-associated memory and mobility declines

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The "Centre for Memory and Mobility" located in Luxembourg City opened its doors in September 2015 and addresses people aged 60 years and older. A team composed of medical doctors, physiotherapists, occupational therapists, psychologists and social workers provides primary and secondary preventive healthcare programmes. On the patient's first visit, the medical background and social key parameters (e.g., living situation, dependency) are assessed in a personal counselling interview. In a second step, therapists assess general cognitive functioning, balance, strength, gait performances and vital parameters. The assessed information guides the individual composition of the suitable intervention programme (mobility and/or cognitive training) for each patient. Interventions generally consist of 6, 12 or 18 weeks lasting mobility and/or cognitive training programmes, which can be attended once or twice a week. Patients are evaluated weekly during multidisciplinary staff meetings. After completion of their individualized training programme, the therapists re-evaluate mobility and cognitive parameters and discuss the effects of the training as well as suitable further interventions with the patients. Individual physiotherapy, psychological or social counselling, and neuropsychological diagnostics complement the Centre's healthcare offer. To date, 133 patients have completed cognitive and mobility training programmes with positive results (see Bourkel, Steinmetz & Federspiel, 2016; Federspiel, Bourkel & Steinmetz, 2016). With the present work, we demonstrate the necessity and more importantly, the feasibility of a highly qualified structured preventive healthcare offer.

P-584
The HATICE trial in France: focus on the recruitment from a prevention centre

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Background: The Healthy Ageing Through Internet Counselling in the Elderly (HATICE) trial aims to investigate whether a multidomain internet intervention to optimise self-management of cardiovascular risk (CVR) factors can reduce the risk of cardiovascular disease, cognitive decline and dementia. The 18-month trial is intended for persons aged 65 and older with increased CVR. It runs in the Netherlands, Finland and France. In France, half of the 368 participants were recruited from a prevention centre (Cedip). We explored the recruitment process among this specific population and examined to what extent Internet is a barrier to participation.
Methods: In France, Cedip participants were recruited among beneficiaries aged 65 and older via 2 channels: 1. beneficiaries coming to Cedip for their prevention check-up were invited to participate in the HATICE trial if considered eligible; 2. a self-completion questionnaire to assess main eligibility criteria was sent to 6591 beneficiaries who had attended a prevention check-up since 2012; eligible persons were then invited by phone to participate in the trial.

Results: A mong the 1027 persons preselected via channel 1, 82.2% were not eligible. Main reasons for non-eligibility were low CVR (60.1%) and Internet illiteracy (23.3%). In the 3359 questionnaires that were returned (response rate: 51.0%), non-eligibility was certain for 52.2%, of whom 83.4% had low CVR and 39.5% had insufficient Internet skills. Acceptation rates before prescreening was 55.9% in channel 1 and 56.0% in channel 2.
Conclusions: Internet was an important barrier to participation in the HATICE trial in France, though not the main one.

P-585
The influence of cognitive and mobility training programmes on cognitive functioning among healthy elderly people and people with MCI

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Cognitive and mobility training have a positive influence on cognitive functioning both in healthy elderly people and in people with mild cognitive impairment. The aim of this study is to further clarify the effect of a 12 week mobility and/or cognitive intervention on cognitive performances in healthy elderly people and mildly cognitively impaired people. The mobility and cognitive training were both conducted in small groups (maximum eight participants) which were homogeneous concerning the participants' respective cognitive and mobility capacities. The participants attended the cognitive training sessions once a week and the mobility training sessions at least once a week. In the cognitive intervention, mainly attention, memory strategies, cognitive flexibility, and language were trained. The mobility intervention mainly focussed on the training of general mobility, balance, coordination, gait stability, endurance, muscular strength, torso muscles and spine flexibility. The participants (N=63, age range = 58–92 years) either partook (1) in only a cognitive training programme, (2) in only a mobility training programme, or (3) in a combination of a mobility and a cognitive programme. The participants' cognitive abilities were assessed before and after the training programmes. Cognitive screening and attention tests were used. The effects of the interventions in the three groups are compared. The discussion of the findings focuses on the effects of the interventions and highlights the importance of facilitating structured cognitive and mobility training programmes for both healthy elderly people and people with mild cognitive impairment.

P-586
The prevalence of xerosis among older people living in the community and its influence on quality of life

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Introduction: Xerosis is one of the most common complaints of older people, often remains undiagnosed. Identification of risk factors and the most common clinical manifestations would help to timely recognize and treat xerosis, and to avoid its influence on quality of life.
Methods: Analytical cross-sectional study was performed. Questionnaire survey of older people (n=83, age 69,26±3,98 years), living in the community, was conducted by using the original questionnaire, developed by researchers.
Results: 58.1% of all surveyed currently experience xerosis with duration 8.29±6.373 months. A statistically significant risk factor for development of xerosis was usage of statins (p=0,048). The respondents most often complained about dry skin in face (26.8%), palms (20.6%), calves (18.6%), forearms (13.4%). 57.1% of the respondents complained about dry skin flaking, 51% - dry skin redness, 47.9% - dry skin cracks, 55.1%-dry itching skin, 22.4% – pain, 83.7% felt uncomfortable because of their skin. Dry skin disturbed in household chores for 30.6% of the respondents, influenced the choice of clothes (36.7%) and leisure activities (49%), disturbed sports activities for 28.6% of the respondents.
Conclusions: Xerosis is prevalent among 58,1% of older people, living in the community. Usage of statins has statistically significant influence on appearance of xerosis ($p<0,05$). Xerosis is usually localized in the skin of face, back of the head, palms, calves, forearms. Flaking, redness, cracking, itching and pain occurs together with xerosis. Xerosis influences the choice of clothes, leisure time, sports, household chores. Older people feel uncomfortable because of xerosis.

P-587
Trajectories of health-related quality of life (HRQoL) domains among older businessmen

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Introduction: Health-related quality of life (HRQoL) has been used to assess healthy and functional ageing. Previous studies indicate that the stability in the trajectory of good physical functioning is associated with an optimal ageing. However, the trajectories of other HRQoL domains are less clear. We studied these trajectories in a 15-year follow-up among older businessmen.
Methods: This is a longitudinal study of the Helsinki Businessmen Study (HBS) cohort (born in 1919–34). HRQoL was assessed with the RAND-36 (SF-36) instrument in the years 2000 (n=1871), 2003 (n=1273), 2007 (n=1043), 2010 (n=911), and 2015 (n=497). RAND-36 includes 8 domains: Physical functioning (PF), Role physical (RP), Vitality (VT), Mental health (MH), Role mental (RM), Social functioning (SF), Bodily pain (BP), and General health (GH). These domains can be further condensed to Physical component summary (PCS), and Mental component summary (MCS). The linearity and statistical significances were analysed using NCSS software.
Results: We found that the trajectory of PF, an indicator of mobility disability, decreased linearly with increasing age. In contrast to PF, the scores of other domains of HRQoL first remained similar or even increased between years 2000 and 2003, and decreased linearly first after that. Similar trends were seen in the summary scores PCS and MCS.
Conclusions: Our study reveals variations in the trajectories of HRQoL domains in old age, especially between PF and other domains. These differences should be considered when HRQoL is related to healthy and functional ageing, and when summary scores of HRQoL are used.

P-588
Transition to long-term care by the elderly – Evaluation of the phenomena in Central Portugal (a research protocol)

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Introduction: The number of elders in Long Term Care Facilities

(LTCF) has been increasing significantly. In 2014, over 75000 elders lived in LTCF in Portugal. It is known that the increase in life expectancy, impact of work obligations in family support, increased comorbidities, and self-care needs are some of the reasons for this need of change from home to LTCF. However there is a lack of knowledge about how this transition is experienced by this population, and the potential impact in their lives.
Methods: A qualitative study, based on Meleis' Transition Theory, will be carried out in ten LTCF in Central Portugal, in elderly without history of cognitive impairment, and willing to participate in the study. Data will be collected using individual semi-structured interviews, and content analysis will be performed.
Results: Data collected from the interviews will allow us to understand how the transition process occurred/is occurring, which factors influence this process and consequences in the life experiences of the elderly.
Conclusions: This research will provide insight of how the transition process is occurring in the elderly, allowing a better understanding of this phenomenon. It is expected that the data collected will potentially allow for the development of nursing interventions that may optimize the transition process.

P-589
Who uses exercise in later life?

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Introduction: Living longer brings the challenge of ageing well. Enabling older people to increase exercise and activity can improve health and social outcomes, functional ability, engagement with local community resources and quality of life. A key challenge is to reverse the trend for older people who reduce their activity by 50% from age 60 to 85 and to promote exercise alongside everyday community living. This study explores the lived experience of older people and their exercise practice in one English city.
Methods: An ethnographically informed approach was used to understand the local contexts. We undertook focus groups, with participants in local exercise classes, and non-exercise participants. The data was enriched with field notes and observations of the classes. Further focus groups and 1:1 interviews were undertaken with exercise providers, clinicians and service commissioners.
Results: Key themes identified relate to the charisma and capability of the instructor to tailor exercise to individual needs, familiarity and accessibility of the group, and social engagement with fellow participants. Non-exercise participants articulated the process of dis-engagement as they grow older. Clinicians were unaware of local provision, and unable to signpost older people appropriately. Exercise providers struggled to access routine referral routes. Commissioners understood barriers, but were disconnected from aspirational opportunities and the lived experience of service users.
Conclusions: Understanding local context, culture and older people's priorities is key for engagement in exercise. Clinicians and providers should develop awareness of local opportunities and their value to older people, to increase referral options that are appropriate and acceptable.

Area: Oral and dental health

P-590
Association of functioning and nutrition with oral health and hygiene among old home care clients

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Introduction: Vulnerable older people living at home are at increased risk of compromised oral health and hygiene. The aim of this study was to describe oral health and hygiene in a group of old home care clients and investigate how functional ability and nutrition are associated with them.
Methods: This study is a part of a multidisciplinary intervention study of 269 home care clients aged ≥75 years, living in Eastern and Central Finland. The data was collected using structured interviews to measure ability to function in activities of daily living (ADL), instrumental activities of daily living (IADL), comorbidity (Functional Comorbidity Index, FCI), depression (Geriatric Depression Scale, GDS-15), cognitive function (Mini Mental State Examination, MMSE), nutritional status (Mini Nutritional Assessment, MNA) and numbers of drugs used. The study included an interview of oral health and clinical oral examination.
Results: The majority of participants were at least moderately dependent on support for activities of daily living (ADL). The participants had, on average, 8.4 teeth. Dental plaque was detected in 77%, bleeding on probing in 84% and dental caries in 30%. In multivariate analyses, low functioning in activities of daily living was statistically significantly associated with occurrence of dental plaque (OR =0.95, 95% CI: 0.9–1.0). Lower functional ability, lower numbers of remaining teeth and higher amount of plaque were associated with bleeding on probing.
Conclusions: The results of this study suggest that functional ability is on important determinant of oral health and hygiene among older home care clients.

P-591
Promoting oral health and oral hygiene in a geriatric nursing home – A pilot

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The number of older people having their own teeth is rising. According to studies, oral health (OH) has great impact on health. The aim of the project is to achieve the best possible oral and dental hygiene. It is designed as an intervention study and carried out in a nursing home for one year. At the beginning the oral health status of the residents (n=77) was assessed with a quantitative

questionnaire. Also a survey with the nursing staff (n=36) regarding OH knowledge and performance-rating was conducted. As interventions we implemented a special OH-training for the nurses, utilised a guideline and offer professional dental hygiene. Results of the residents self-assessment show that 86% rate their OH as good. Less than 10% report difficulties while speaking or eating. Similar results can be found within the external assessment, where the majority (70–95%) was assessed as healthy.Within the nurse self-assessment, 67% rate their knowledge of oral care as good. Only 15% rated it as sufficient. Almost all respondents (94%) confirmed the importance of oral care. In order to improve the OH status, regular dental examinations, followed by trainings are stated. The results show a positive result both in the self-assessment and in the external assessment of the residents. On the part of the nurses, a high value towards the topic, as well as a consistently positive assessment of the abilities and the OH health status of the residents.

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Telemedicine and programmed oral surgery in a Odontogeriatrics Program

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Introduction: The objetive is to define the development of our Odontogeriatrics program along last 2 Years.
Methods: 19 patients from our Institutionalised, Home Visiting and Acute Geriatrics care programs. Patients are checked by the dentist thanks to telemedicine and he chooses the treatment: programmed oral surgery in our hospital or in other one. We have included patients since 2015 to the present. We have collected socio-demographic, clinical, mental (Mental Red Cross -MRC-Index), functional (Physical Red Cross -PRC- and Barthel -BI- Indices), geriatric syndromes, polifarmacy (>6 drugs), comorbidity (Charlson Index), surgical risk (ASA Index), and surgical activity performed features.
Results: One patient was rejected due to a deep vein trhombosis. Final N=18 (84% women, mean age 83.84±7.32 years). Patients profile: 68% severely dependent (MRC 4–5), 53% moderate-severe dementia (MRC >3), 74% polypharmacy, 26% high comorbidity (Charlson >3) and 57.89% high surgical risk ASA IV). The most frequent treatment has been complete dental pieces extraction or root remains retained extraction which had had frequent infections (57.89%) or severe complications (26.31%). Mean surgical delay was 9.33 days. The most frequent surgical complication was hemorrhage (15.79%). Mean number of extracted dental pieces was 6.38 (range 2 to 13 pieces).
Conclusions: Severe functional and cognitive dependence, high polypharmacy, high comorbidity and high surgical risk patients are the most benefited from the odontogeriatrics program.

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The association of oral complaints with mental disorders in older patients

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Introduction: Psychiatric diseases, and particularly depression, anxiety and personality disorders, as well as psychiatric medications, have been associated with various self-reported oral complaints. The aim of this study was to investigate any variation in subjective oral complaints between older people with and without mental disorders.
Methods: An interview was performed in a group of older patients with mental disorders, with a mean age of 71.9 years residing in a psychogeriatric ward and in a group of dental school patients without mental disease with a mean age of 70.2 years. The patients with mental illness were diagnosed for mood disorders, psychotic disorders, dementia, and other mental diseases. Descriptive statistics were performed, and chi-square and Mann-Whitney tests investigated any significant variation between variables.
Results: The non-mentally ill patients suffered more frequently from hypertension and cardiopathy, but received fewer medications ($P<0.05$). The prevalence of xerostomia in patients with mental disorders was 46.7%, burning mouth 22.7%, oral malodor 21.3% and dysgeusia 25.4%. The prevalence of these symptoms in people without mental disorders was 33.8%, 0%, 10.8% and 2.7% respectively. The differences between groups were statistically significant: xerostomia ($P=0.049$), burning mouth ($P\leq0.001$), oral malodor ($P=0.028$) and dysgeusia ($P\leq0.001$).
Conclusions: Dysgeusia, burning mouth and oral malodor self-perceptions were more frequent in older people with mental diseases; therefore, their prognostic value requires further investigation. The variation in xerostomia complaints between groups was marginal, as people without mental illness also suffered from general diseases associated with xerostomia (ie. diabetes) or received xerostomic medications (ie. for hypertension).

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The effect of individually tailored dietary and oral health counselling among older home care clients on xerostomia

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Introduction: A subjective feeling of dry mouth (xerostomia) is common among older adults and affects their quality of life, nutrition and oral health. Medical conditions, polypharmacy and dehydration are often found behind xerostomia. The aim of this study was to examine the effectiveness of a tailored dietary and oral health intervention among home care clients aged 75 years or over.
Methods: This intervention study is part of a population –based Nutrition, Oral Health and Medication (NutOrMed) study. Intervention group comprised 141 patients (84,3±5,5 years) and control group 108 (84,6±5,8 years). Home care nurses, nutritionists, dental hygienists and pharmacists carried out in-home interviews before a tailored intervention. Individual counselling on dry mouth care was given to all those suffering occasionally or continuously from xerostomia (n=80, 56,8%) including advice on topical therapies. Nutritional intervention included instructions to all with malnutrion or at risk of malnutrion (MNA score <24, n=120, 86,8%) on increasing the number of meals and energy and protein intake as well as liquid intake. 91,2% (n=73) of those suffering from xerostomia received both interventions.
Results: In the intervention group xerostomia decreased (7,1%) and liquid intake (21,6%) and eating fruits or vegetables (10,0%) increased. In the control group xerostomia increased by 2,8%, liquid intake decreased (5,4%) and eating fruit and vegetables slightly increased (2,1%).
Conclusions: The interventions reduced xerostomia most likely due to dietary changes. Comprehensive management of xerostomia including nutritional advice is important as topical therapies alone are often not enough.

Area: Pharmacology

P-596
AGITE – a medication self-management and adherence in the elderly questionnaire

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Introduction: Complex medication regimes are a reality for many older adults (OA). This requires the use of inner competences to allow for higher levels of adherence and self-care-management regarding medication. Health professionals require knowledge of these self-management and adherence behaviors to optimize and improve quality-of-life. The use of a questionnaire could prove to be a tool that systematize data collection with impact in the offer adequate interventions.
Methods: A systematic review of literature was developed to obtain the main categories that influence medication adherence and self-management. Afterwards, a questionnaire with open-ended questions was administered to twenty OA. Content analysis was performed by a group of experts in the area, leading to the development of nineteen closed-ended questions with a Likert scale approach for the scaling of responses. The questionnaire was named AGITE. After application of the final questionnaire to 128 elders in day centers in Central Portugal, exploratory factorial analysis (EFA) and internal consistency (IC) were performed.
Results: From the EFA, using varimax rotation, three main dimensions emerged: "Engagement", "Neglect" and "External Influences". Higher scores of "Engagement" indicate a responsible attitude towards self-management and adherence, while higher scores of "Neglect" tendency to cease medication without professional advice. People with high scores of "External influences" tend to follow medication without assuming control of the process. Overall the questionnaire dimensions demonstrate questionable to acceptable IC ($0,6<\alpha<0,8$).
Conclusions: AGITE requires further testing to understand its clinical validity and potential to aid in adapting nursing interventions to the self-management and adherence profile.

P-597
An approach towards internationalization and computerization of the FORTA (Fit fOR The Aged) list

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Older people are the main recipients of drugs in many regions of the world. Numerous studies have demonstrated that a large division of older people is the "target" of inappropriate drug therapy. The reason is that for most of the medications there is hardly any evidence regarding efficacy and safety in the elderly. Furthermore, the presence of multimorbidity and as a result polypharmacy aggravates this issue. To effectively address this problem and to increase the appropriateness and quality of drug treatment in older people, our group has developed a clinical tool called the FORTA List. Wehling originally created FORTA, and the FORTA List was validated by 20 experts in a Delphi consensus procedure and updated in 2016. In addition, we evaluated FORTA's utility in a pilot clinical trial and in a randomized controlled prospective trial. These two trials revealed that FORTA significantly ($p<0.001$) improves the quality of drug treatment, and even some secondary endpoints (e.g. total number of ADRs) of our studies were improved. Based on these results, we conducted a consensus validation of country-specific FORTA Lists in the UK, France, Poland, Italy, Spain, Nordic countries and Netherlands. Here, we used a self-developed algorithm to select top experts in the field of geriatrics with high experience in clinical pharmacotherapy. 46 experts agreed to take part in our study. The results of this study will be used to develop a European FORTA List and an application (FORTA-App) which will help to increase its international and clinical applicability.

P-598
An audit of non steroidal anti-inflammatory drug (NSAID) prescribing to high risk patient populations

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Introduction: NSAIDs are associated with known morbidity/mortality, particularly in High Risk patient populations, such as the elderly. Prescribing should be both carefully considered and monitored. Studies have shown 1/3 of adverse drug reactions (ADRs) requiring hospital admission may be attributable to NSAIDs. This Audit assessed prescribing in an Irish General Practice, and compared results to a 2015 National Audit of NSAID prescribing performed in Wales (similar patient cohort). Data gathered included: Among patients receiving repeat prescriptions for NSAIDs:

- Percentage considered "High Risk" for an ADR, this included all patients aged over 65.
- Rate of PPI co prescription.
- Percentage that had an eGFR documented in their records.

Methods: Healthcare Software, SOCRATES, was used to collect data of patients who received more than one prescription for NSAIDs in the period 01/07/2015 to 01/07/2016. Data was analysed using Microsoft Excel and basic statistical analysis.
Results: 43 patients received more than one prescription for an NSAID. 60% of those had at least one factor that categorised them as "High Risk". 58% of patients had a PPI co-prescribed and 77% had a recorded eGFR. These figures were higher than those found in the All Wales National Audit (46 and 56% respectively).
Conclusion: The overall positive findings in this Audit are likely attributable to repeat prescribing being performed solely by one doctor. This shows how important continuity of care, and knowledge of patients, is to optimise prescribing practice in patients with multiple co morbidities, or who are at High Risk of an ADR.

P-599
Analysis of remaining Potentially Inappropriate Medications (PIM) after revaluation of drug prescriptions in geriatric unit

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Introduction: Revaluation of drug prescriptions in geriatric units leads to improve the quality of prescription with the decrease of the number of Potentially Inappropriate Medications (PIM). But even after revaluation by a multidisciplinary team, some PIM still remain in prescriptions. The aim of this study is to analyze the remaining PIM at discharge in a geriatric unit.
Methods: We performed a 4-month prospective study of drug prescriptions of patients hospitalized in a geriatric unit of our hospital. Patients with PIM in their prescription at admission and for whom medication conciliation at discharge was performed were included.
Results: A total of 35 patients were included. At admission, 273 drugs were prescribed and 96 PIM identified (median of 8 drugs and 2 PIM per patient). After revaluation, 31 of these PIM (32.3%) remained at discharge. Among these PIM, 15 were psychotropic drugs (12 benzodiazepines and 2 antidepressants, 1 neuroleptic with failure to withdrawal), 8 proton pump inhibitors (PPI), 6 antiplatelet agents (APA) with no evidence-based clinical indication

and 2 antihypertensive drugs in old fallers. Benzodiazepines had short half-life without withdrawal planned for all of them. PPI were continued for patients with concomitant anticoagulant or APA (n=6). APA were mainly kept for patients with cardiovascular history such as hypertension or arrhythmia (n=5). For all of these patients, explanations or guidance were rarely found in hospitalization reports.
Conclusions: Most of PIM are stopped but the benefit-risk balance of the remaining PIM is most of the time difficult to evaluate. Their pursuit has to be justified and their future communicated to general practitioners.

P-600
Anticholinergic burden – A review of available scales and associated outcomes

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Introduction: Cumulative anticholinergic exposure (anticholinergic burden) is associated with a number of adverse outcomes. An agreed approach to describing anticholinergic burden is needed in order to conduct research in this area. This review reports the results of a systematic approach to identify anticholinergic burden scales, the context in which they have been used and the outcomes linked with them.
Methods: The Medline, Embase, CINAHL and PsycINFO databases were searched for systematic reviews describing the use of anticholinergic burden scales. Abstracts and titles were then reviewed with eligible articles read in full. The final selection of studies was then analysed and appraised.
Results: Five reviews were identified for analysis which described 18 anticholinergic burden scales. Comparison of these scales showed variation in their derivation, content and quantification of anticholinergic activity. The Anticholinergic Risk Scale was used more frequently in care homes and hospital settings while the Drug Burden Index was the most commonly used scale in community and database studies. Association between anticholinergic burden and outcomes varied by scale and study - falls and hospitalisation were consistently found to associate with anticholinergic burden while mortality, delirium, physical function and cognition were not.
Conclusions: Anticholinergic burden scales vary in their derivation, content and association with outcomes. This review has shown that the concept of anticholinergic burden has been variably described and inconsistently defined using a number of scales with different content and quantification. The association between adverse outcomes and anticholinergic burden varies between indices and has not been conclusively established.

P-601
Antidepressant use in the elderly and users' risk profiles: baseline characteristics of a German claims-based cohort

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Background: Antidepressants (ATDs) are a useful therapeutic tool in late-life depression and prescribed off-label for pain or sleep disturbances. They are frequently used in the elderly, but balancing the risks and benefits in these patients is challenging. The safety profiles of individual ATDs need to be considered in combination with the patients' risk profiles. However, patient populations have hardly been described in this regard.
Objective: This study aimed to assess patient characteristics, use of individual ATDs, co-medications and pre-existing diagnoses relevant to potential adverse events in elderly users of ATDs.
Methods: Population-based cohort study of elderly aged ≥65 years with a first prescription for an ATD during 2005–2014, based on claims data of the German Pharmacoepidemiological Research Database (GePaRD). Pre-existing diagnoses and co-medications were assessed any time before starting treatment.
Results: The cohort included 763,723 new users of ATDs (69.5% women, median age 73 years; interquartile range (IQR): 68–79). Treatment was most frequently started with Amitriptyline (19.9%), Citalopram and Opipramol (16.0%), Mirtazapine (15.2%), Doxepin (8.1%). Before starting treatment, patients took a median of 7 (IQR: 4–10) differ**Results:** The cohort included 763,723 new users of ATDs (69.5% women, median age 73 years; interquartile range (IQR): 68–79). Treatment was most frequently started with Amitriptyline (19.9%), Citalopram and Opipramol (16.0%) Mirtazapine (15.2%), Doxepin (8.1%). Before starting treatment, patients took a median of 7 (IQR: 4–10) different medications, 51.1% had Charlson Comorbidity index >2, 49% prior cardio- and 34.3% cerebro-vascular disease, 79.7% hypertension, 31.1% diabetes, 7.5% prior hip fracture.
Conclusions: Risk factors for adverse outcomes, co-morbidity and co-medications were common. This highlights the need for a careful risk-benefit assessment and the consideration of the individual agents' safety profiles when prescribing ATDs in the elderly. ent medications, 51.1% had Charlson Comorbidity index >2, 49% prior cardio- and 34.3% cerebro-vascular disease, 79.7% hypertension, 31.1% diabetes, 7.5% prior hip fracture.
Conclusions: Risk factors for adverse outcomes, co-morbidity and co-medications were common. This highlights the need for a careful risk-benefit assessment and the consideration of the individual agents' safety profiles when prescribing ATDs in the elderly.

P-602
Bone mineral density changes in postmenopausal women after a 2-year treatment course of bisphosphonates

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Introduction: Osteoporosis is a disease characterized by a loss of bone mass with alterations of the bone tissue's microarchitecture resulting increased bone fragility and risk of fracture. Bisphosphonates are the most commonly used agents for osteoporosis.
Methods: A retrospective cross-sectional study was performed in The National Osteoporosis Center based in Vilnius and included 47 women aged 51 years and older. Exclusion criteria were malignancies, secondary osteoporosis. Written informed consent was obtained from each participant. DXA was used to measure hip and lumbar bone mineral density (BMD) (iDXA, GE Lunar, USA). BMD was measured twice: at the beginning of treatment and after 2 years ± 6 months. All participants answered face-to-face questionnaires addressing medications use after 2 years ± 6 months.
Results: The total of 47 postmenopausal women were investigated in the first visit: the youngest was 51 years and the oldest was 84 years old and the average BMD was 0.781 g/cm^3 ±0.0131. In the second visit was measured BMD after 2 years use of bisphosphonate treatment course and the average BMD was 0.84 g/cm^3 ±0.082. There was a significant difference between the first test and the second test results ($p<0.001$). Hip BMD for 32 of 47 women was measured above the least significant change (5%) and the mean was 13.59%.
Conclusions: The preliminary data of our study showed BMD statistical significant changes after two years of bisphosphonates treatment.

P-603

Cerebrovascular accident related to the use of tranexamic acid: A case report

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Introduction: Tranexamic acid is an old drug (1986) mainly used in first intention for menorrhagia. It was recently reassessed by French Haute Autorité de Santé who suggests that it represents a high medical benefit. However, no study was performed in the older population. We report the case of a 91 years old woman, who was hospitalized for a stroke few weeks after the prescription of tranexamic acid for menorrhagia (500mg three times per day) in a context of uterine tumor.
Discussion: Thromboembolic event is a known but rare side effect of this drug (0.01 to 0.1%). Before prescribing tranexamic acid, prescribers have to ensure the absence of thromboembolic risk factors before using it. However, older patients often are at high risk of thromboembolic factor, age itself being a risk factor. This patient already had 4 risks factors and had aspirin as cardiovascular prevention. Aspirin could have been stopped before trying the use of tranexamic acid. Another issue is the adaptation of the drug dosage to renal function. According to the legal mentions, the dosage must be adapted depending on the serum creatinine values and not on the renal clearance as it is usually recommended in this population.
Conclusion: For these reasons, prescribers should very carefully think and reject all other option before the use of tranexamic acid in older individuals.

P-604

Comparison of drug therapy on nursing home admission and at six months with the application of STOPP/START criteria version 2

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Introduction: Nursing home residents are frail with multiple comorbidities requiring the use of many drugs, increasing the risk of potentially inappropriate prescribing. The STOPP/START criteria were developed to identify such errors, where STOPP detects potentially inappropriate medications (PIMs) and START potential prescribing omissions (PPOs). The aim of the study was to evaluate drug therapy in two nursing homes in Reykjavik, with the application of the STOPP/START (version 2) criteria, on admission and at six months.
Methods: The study was retrospective. Included were residents admitted after January 1, 2013 that remained in the nursing homes for at least six months. Data collected included information about drug therapy, diagnosis, selected blood laboratory values and the resident's state of health according to selected Resident Assessment Instrument (RAI) variables.
Results: In nursing home A (n=88), the prevalence of residents with PIM were 94.3% both on admission and at six months, and the proportion of PIMs per total number of medications were 28.2% and 27.3%, respectively. In nursing home B (n=55), the prevalence of residents with PIM on admission and at six months were 90.9% and 96.4%, respectively, and the proportion of PIMs per total number of medications were 30.3% and 36.8%, respectively. The number of medications and PIMs were positively correlated at both time points in nursing homes A and B. Cognitive impairment was negatively correlated with the number of PIMs at six months in nursing home A and on admission in nursing home B. In nursing home A, the prevalence of residents with PPO on admission and at six months were 73.9% and 68.2%, respectively, and in nursing home B, 85.5% and 90.9%, respectively. The most common STOPP criteria used was not a registered indication.
Conclusion: According to STOPP/START both PIMs and PPOs were highly prevalent both on admission and at six months in both nursing homes. Inadequare documentaion of diagnoses was common. Better documentation and regular medication reviews using STOPP/START criteria, could be useful to reduce the high prevalence PIMs.

P-605

Comparison of three score methods for predicting the risk of adverse drug reaction in older people in intermediate term care institutions

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Introduction: In the last years, different risk scores to evaluate the risk of adverse drug reactions (ADR) in geriatric patients have been proposed. The risk screening is an important tool for pharmacists working in long term care institutions, in order to focus their interventions. We have assessed different tools to determine which will be more appropriate in our setting.
Methods/Setting: Three intermediate long term care institutions.
Design: Observational cross-sectional study.GerontoNet, BADRI and ADE Geriatric Risk Score, were applied using the electronic clinical record to all inpatients. Palliative patients were excluded.Data were recorded and evaluated using Microsoft Excel 2013®.
Results: A total of 248 patients were included.GerontoNet: 5 (medium level of risk) was the most frequent score. Items of comorbidities and ≥8 drugs were the most habitual. BADRI: Scores 1, 2 and 3 had similar frequency (low-medium risk). Comorbidities and length of stay ≥12 days were those most prevalent. ADE Geriatric Risk Score: The higher frequency was in the range 2–5 score (medium risk). Use of anticoagulants since <3 months and 7–9 of drugs were the predominant risk factors.
Conclusions: The three methods gave results of medium risk of ADR in our patients. Comorbidies and a high number of drugs are determinant factors, been always present in our patients. In our setting GerontoNet had limitations due to search for previous ADR information. A prospective study will be managed using BADRI and ADE Geriatric Risk Score.

P-606

Computerised medication analysis designed to minimise inappropriate prescribing in older hospitalised patients: a systematic review

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Introduction: Prescribing medications for complex multi-morbid older patients is a challenging process. Computerised interventions have been suggested as an effective strategy to reduce potentially inappropriate prescribing (PIP) in this patient group. This systematic review examined the evidence of efficacy of computerised interventions designed to reduce PIP in hospitalised older adults.
Methods: A comprehensive electronic literature search was conducted using 8 databases from inception to end of March 2017. Studies were included if they were controlled trials (randomised or non-randomised) of computerised interventions which aimed to reduce PIP in hospitalised older adults (≥65 years).

Results: A total of 594 records were identified after duplicates were removed. Eight studies met the inclusion criteria - two randomised controlled trials, two interrupted time series studies, and four pre/post intervention studies. Studies were mostly at a low risk of bias. The acceptance rates of computer-generated recommendations ranged from 29% to 95% in the studies that assessed this outcome. The majority of studies showed either a significant reduction in the proportion of patients prescribed a potentially inappropriate medicine (PIM), or a reduction in PIMs ordered compared to control patients ($p<0.05$).
Conclusions: This systematic review concludes that computerised medication review interventions are associated with a significant reduction in PIP in hospitalised older adults. However, the majority of included studies only focused on a limited number of PIMs. Further studies are required that utilise robust validated software engines capable of targeting a wider range of PIP instances, and that can result in clinically significant improvements in patient outcomes.

P-607
Consensus validation of the POSAMINO (POtentially Serious Alcohol Medication INteractions in Older adults) criteria

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Objectives: Older adults experience a disproportionate burden of alcohol-related harm. [1] Our objective was to develop an explicit list of potentially serious alcohol-medication interactions for use in older adults.
Methods: A systematic review, supplemented by a review of drug compendia and clinical guidance documents, was conducted to identify medications with the potential to interact with alcohol. The Project Steering Group (PSG) reviewed each criterion, resulting in an inventory of 52 potentially serious alcohol-medication interactions. BNF black dot warnings (n=8) were included in the final criteria as they represent "potentially serious" interactions. The remaining 44 criteria underwent a two-round Delphi process using an expert panel of 19 healthcare professionals from the UK and Ireland. Using an online questionnaire, panellists were asked to rate their agreement with each criterion, using a 5-point likert scale. Consensus was determined using the median response, interquartile range and comments.
Results: Thirteen criteria were accepted in round one. Following a review of comments, nine criteria were removed and eight additional criteria were developed for the second round. The remaining 30 criteria went to round-two, with 17 criteria reaching consensus, providing a final list of 38 potentially serious alcohol-medication interactions; central nervous system (n=15), cardiovascular (n=9), endocrine (n=5), musculoskeletal (n=3), infections (n=3), malignant disease and immunosuppression (n=2) and respiratory system (n=1).
Conclusions: POSAMINO is the first set of explicit potentially serious alcohol-medication interactions for use in older adults. These criteria will facilitate the risk stratification of older adults at the point of prescribing.
References:
[1] Wadd S, Papadopoulos C. Drinking behaviour and alcohol-related harm amongst older adults: analysis of existing UK datasets. BMC Res. Notes. 2014;7:741.

P-608
Cooperation between geriatricians and general practitioners for improved pharmacotherapy in home-dwelling elderly people receiving polypharmacy – the COOP Study: study protocol

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Background: Polypharmacy and inappropriate drug use is associated with negative health outcomes among older people. Various interventions for improving drug treatment have been evaluated, but the majority of studies are limited by the use of surrogate outcomes or sub-optimal design. Thus, the potential for clinically significant improvements from different interventions is still unclear. The main objective of this study is therefore to evaluate the effect upon patient relevant endpoints of a cooperation between geriatricians and general practitioners on complex drug regimens in home-dwelling elderly people.
Methods: This is a cluster randomised, controlled trial where general practitioners participate with patients from their lists. The patients must be 70 years or older, use at least seven different medications and have their medications administered by the home nursing service. We plan to recruit 200 patients, with randomisation at physician level. The intervention consists of three parts: 1) geriatric assessment of the patient, combined with a thorough review of their medications; 2) a meeting between the geriatrician and general practitioner, where the two physicians combine their competence and knowledge and discuss the drug list systematically; 3) clinical follow-up, depending on the medication changes that have been done. The patients are assessed at baseline, 16 and 24 weeks, and the primary outcome measure is health-related quality of life according to the 15D instrument.
Discussion: Our choice of patient relevant outcome measures will hopefully provide new knowledge on the potential for clinical improvements after performing comprehensive medication reviews in home-dwelling elderly people receiving polypharmacy.

P-609
Development of national guidelines on the practice of crushing and/or opening solid dosage forms

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Introduction: Many elderly patients are unable to swallow tablets or capsules in their original form. Therefore, there is a growing practice of crushing or opening these medications in order to ease their administration to patients. However, this practice is at risk of drug inefficacy or toxicity for both the patients or the nursing staffs. In the absence of widely available and consensual guidelines, we developed harmonized national guidelines for the practice of crushing tablets or opening capsules for oral administration.
Methods: The Gerontology Study Group of the French Society for Clinical Pharmacy (SFPC), defined the guidelines specifications for each medication (drug name, dosage form, recommendation of opening or crushing. The data was collected from medication databases and pharmaceutical companies, and pooled in a standardized grid which was reviewed and validated by the group.
Results: This guideline was first published in the form of a simple electronic tool widely accessible via the SFPC web site (http://sfpc.eu/fr/) and easy to use by health-care professionals. It includes 3 parts: (1) an instruction manual on how to find and read data about the desired drug, (2) general good practices for the preparation and the administration of crushed medications, and (3) the entire list of chemicals along with information about the possibility of crushing or opening. Secondly, the guide was optimized into a dynamic databasis for easier and more efficient use.
Conclusions: The guide developed by our working group is a simple, accessible and dynamic tool, suitable for current practice. It integrates well with the management of elderly patients' medical care.

P-610
Differences between drugs related problems in aged and middle-aged patients: analysis of pharmacists medication order review during 8 years

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Introduction: Involvement of clinical pharmacists to identify and correct Drugs Related Problems (DRP) through pharmaceutical interventions (PI) is supported by literature, underlying positive patient outcomes and improvement of care. Identifying specific DRPs and PIs occurring in aged patients compared to middle-aged patients should help to better manage at-risk patients. This study aimed to analyses differences in DRPs during medication order review between patients aged ≥75 and patients aged 18–75.
Methods: A retrospective analysis on DRPs documented at the French university hospital of Lyon - 8 hospitals - into a dedicated module of the French Society of Clinical Pharmacy website (Act-IP®), was conducted from beginning of 2008 to end of 2015.
Results: A total of 56241 DRPs were registered: 19071 among aged patient and 37170 among patient aged 18–75. A supratherapeutic dosage of benzodiazepines (4.03%) was the most frequent DRP in aged people. Compared to middle-aged, aged patients were, in particular, significantly associated with 1) type of DRPs: Non Conformity of the drug choice to guidelines (OR=1.693, 95% CI [1.520–1.887]), adverse drug reaction (OR=1.532, 95% CI [1.408–1.667]); 2) drug class: Cardiac therapy (OR=5.257, 95% CI [3.404–8.119]), Antithrombotic agents (OR=3.059, 95% [2.003–4.671]).
Conclusion: The medication review by pharmacists allows detecting DRPs effectively. This study highlights some directions that could be taken to improve prevention of DRP among aged patients: specific training to medical team, targeted information on safe drug use and a closer collaboration between physicians and pharmacists.

P-611
Do the recommended doses of drugs depend on the equation used to estimate glomerular filtration rate in acute geriatric care units?

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Introduction: There is no consensus about the most appropriate equation for estimated glomerular filtration rate (eGFR) in the elderly, especially for drug dose adjustment. In those patients, the agreement is low between Cockcroft-Gault equation eGFR (eGFR-CG) and Chronic Kidney Disease Epidemiology Collaboration equation eGFR (eGFR-CKDEPI). In a geriatric population, we investigated the proportion and characteristics of patients receiving drugs whose recommended prescription differs according to the equation used to estimate GFR, and the drugs involved.
Methods: Patients admitted in acute geriatric care units of our hospital were retrospectively screened. Drugs prescribed during hospitalization were recorded. Doses and contra-indications recommended according to adjustment on eGFR-CG and eGFR-CKDEPI were compared.
Results: Among 100 patients included, 31% received at least one drug with a recommended prescription discordance: 20% received at least one drug whose recommended dose was different between eGFR-CG or eGFR-CKDEPI adjustment, 4% received a drug with a relative contra-indication according to only eGFR-CG or eGFR-CKDEPI, 7% received both. Recommended prescription discordance was independently associated with an older age and a lower weight. Main drugs involved were benzodiazepines, anticoagulants and anti-infective drugs, prescribed to respectively 17%, 13% and 7% patients.
Conclusions: In this acute geriatric care units population, drug recommended dose adjustment was frequently discordant according to the equation used to estimate GFR, especially for benzodiazepines, anticoagulants and anti-infective drugs. Cautious prescription is needed in very elderly, thin patients. Further prospective studies are needed to improve guidelines for drug dose adjustment to kidney function in older patients, focusing on those therapeutic categories.

P-612
Drug induced erythroderma: A case report

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Case report: A 89 year old man of Chinese origin was admitted with fever, poor mobility, severe, widespread skin rash and generalised pain. His past medical history included hypertension, COPD, chronic kidney disease and gout diagnosed several months previously and treated with allopurinol. His other medications included furosemide, lansoprazole and bisoprolol. On examination he had a widespread, erythematous, desquamating rash from head to toe. Blood tests revealed acute kidney injury with raised inflammatory markers. The working diagnosis was erythrodermic rash probably secondary to allopurinol, sepsis of unclear source and acute kidney

injury due to dehydration. He was commenced on intravenous antibiotics and fluids. Allopurinol was stopped as a suspected culprit drug. Renal ultrasound and CT imaging of kidneys, ureter and bladder were unremarkable. He was reviewed by the Dermatologist same day and skin biopsy was performed. They felt the rash was most likely secondary to drug rash or Sezary syndrome. His CRP and renal functions continued to deteriorate. The skin biopsy results were consistent with a drug reaction.
Conclusion: Allopurinol is a widely prescribed gout treatment, and it is known to cause erythroderma. Although typically a well tolerated medication, it may result in severe complications, and higher doses should be used with particular caution in the context of chronic kidney disease.

P-613
Drug therapy among the elderly in nursing homes: analysis using the STOPP criteria version 2

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Introduction: The aim of this study was to use the STOPP criteria version 2 to analyse potentially inappropriate medicine use in two selected Icelandic nursing homes.
Methods: The study was a cross sectional study. Total number of residents included from the two care homes was 216. Data was collected over 8 weeks. Data collected were; age, sex, treatment goals, length of stay, number, type and lenght ot use of medications, diagnoses reported in medical records, blood test results and functional parameters according to selected RAI instrument scores (ADL, CHESS and CPS scores).
Results: The results showed that 95,4% of the residents were prescribed potentially inappropriate medications. The most common reasons were no registered indication, medications prescribed for too long or medications that were potentially inappropriate for this population (for example antipsychotics, benzodiazepines and z-sleeping medicines). Inadequate documentation of diagnoses was common.
Conclusions: The STOPP criteria might be helpful to detect Potentially inappropriate medicications in Icelandic nursing homes. Improved documentation of indications would make the STOPP criteria more specific and their use might be helpful to optimize quality of drug prescribing.

P-615
Efficacy of venous compression on symptomatology of orthostatic hypotension and blood pressure in patients aged 75 years and over: a prospective multicenter case/control study

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Introduction: Orthostatic hypotension is common and increases with aging. It has important consequences on the morbidity, mortality and autonomy of elderly patients. The compression stockings are part of the recommendations to combat orthostatic hypotension, but few studies have been carried out.
Method: A prospective, multicenter case/control study was conducted in the geriatric departments of 2 hospitals with the aim of demonstrating the efficacy of class II compression stockings on symptoms and blood pressure in orthostatic hypotension. Patients' histories, treatments and physical characteristics were investigated to find predictive factors for good or poor response to compression stockings.
Results: 213 patients were tested and 38.5% of patients experienced orthostatic hypotension. After 48 hours of corrective measures, only 35 patients were able to benefit from orthostatic hypotension tests without and with compression stockings and have been analyzed. This study shows an improvement in the symptoms of orthostatic hypotension when taken as a whole ($p=0.02$) but not independently. There was also a decrease in the blood pressure drop with a significant difference ($p<0.008$) in favor of the effectiveness of the compression stockings. Diabetes and beta-blockers are factors leading to a lower response of compression stockings.
Conclusion: These data should strengthen our convictions in order to improve therapeutic education among patients. However, studies of larger scale and against placebo are still necessary to conclude to the effectiveness of the stockings.

P-616
Evaluation of the impact of the schedule of the drug taking on the ingestas of seniors hospitalized in after-care and rehabilitation

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Introduction: Fight against undernutrition is an important stake in the older population. Moreover, polypharmacy represents a well-known risk of undernutrition. Traditionally, drugs are administered before the meal,. However, it has already been proposed to administrate the drugs after the meal in order to increase the amount of food ingested. The goal of this study is to evaluate the impact of the schedule of drug taking on the ingestas.
Methods: It is an observational study on patients hospitalized in rehabilitation in the Grenoble-Alpes university hospital. The ingestas has been evaluated by the weight of food ingested (in grams) and the patient's view was requested.
Results: Fifty-five meals were evaluated. The results show that scheduling the administration of drugs after the meal increased the amount of food ingested by 9.4% for the breakfast and 15.4% for the supper. it is interesting to note that none of the patients refused to take their drugs after the meal.Moreover, some patients explained that the administration of drugs before the meal resulted in an appetite loss, especially nutritional supplement and sachets.
Conclusions: This observational study shows that the schedule of drug taking is an interesting lead in the fight against undernutrition of older individuals. It is however quite difficult to set up in short-care geriatric unit. Studies on feasibility and efficiency in a larger population are required.

P-617
Factors determining the use of anticoagulant therapy in geriatric patients with atrial fibrillation – retrospective analysis

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Introduction: Atrial fibrillation (FA) is a common disease in geriatric patients. The patients are at high risk of ischemic stroke but also at risk of severe bleeding during anticoagulation.
Methods: Retrospective analysis of patients hospitalized in the Department of Geriatrics in the period 01.09.2014–30.04.2015. Information on anticoagulant therapy before and after discharge and the patients' functional status were collected. Based on available data, the risk of ischemic stroke (CHA2DS2VASc scale) and the risk of bleeding (HAS-BLED scale) were determined.
Results: 427 patients were hospitalized during the period of the study (mean age 81.6±6.75 years, 85% of patients over 85, 78% of women). Among them, 98 patients with FA (22.95% of the population) were reported. Mean CHA2DS2VASc scale was 5.03±1.39 pts (min value - 3 pts) and HAS-BLED was 2.33±0.83 pts. Antithrombotic

agents were used in 58.16% of patients before admission and in 71,43% at discharge. Anticoagulation was discontinued in 6.12% and started in 19.39% patients. There were no statistically significant differences in CHA2DS2VASc and HAS-BLED scales between patients treated with anticoagulants and without treatment, whereas patients left without antithrombotic prophylaxis were more likely to be at risk of falls and orthostatic hypotension, malnutrition, and often lived alone.
Conclusions: FA geriatric patients, despite high risk of ischemic stroke, are often under-treated with anticoagulation. This is often associated with "geriatric" risk factors for the adverse effects of anticoagulant therapy.

P-618
General practionners collaboration for pharmacist-led medication review

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Introduction: To identify potentially inappropriate prescriptions and reduce iatrogenic events, different actions may be proposed. Among them, a structured medication review (MR) can be provide by french pharmacist in collaboration with general practitioner. MR is supported by a professional Network for the Community Pharmacy (REIPO) structured around the city of Toulouse (Occitanie area, France). The main objective of this study is to identify the impediments and the levers to the implementation of a pharmacist led MR in primary care.
Methods: A national questionnaire was sent to 8939 pharmacies via the LGPI software of pharmagest. The survey was conducted, during a two week period from April 7–22, 2017.
Results: The main barrier identified was the fear of physicians non-adherence for 69.7% of pharmacists interviewed (n=276/396). However, 71.5% (n=283/396) of them think that they can identify physician with whom they could collaborate. The second obstacle identified was the human resources lack, 52% of pharmacists (n=205/396). Then there was the lack of financial means (n=163/396), the fear of poor patient adhesion (n=153/396), and the lack of knowledge about elderly therapeutic optimization (n=108/396). From the perspective of the pharmacists interviewed, the main advantage is an improvement in the patient's medication management (90.7%, n=359/396).
Conclusion: In view of the main obstacle, the REIPO is already working closely with representative of general practitioners. It offers a wide range of training for health professionals wishing to upgrade their skills in the optimization of therapeutics of the elderly. The REIPO aim is to bring together the largest number of pharmacists in order to be able to deploy the MR in collaboration with physicians.

P-619
GPs' continuation and acceptance of medication change at sectorial transitions of geriatric patients – A qualitative interview study

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Background: Follow-up in general practice on the medical prescriptions initiated during hospitalization is often perceived to be inadequate, leading to unintended drug interaction and over or under dosage of medication. But only little is known about the GPs' view on the patients transition from the hospital to general practice.
Objective: We conducted a qualitative interview study to understand the GPs' views on medication changes for their patients by hospital physicians in a geriatric ward, and the GPs' actions after discharge.Setting: Ten general practitioners in Denmark.
Methods: Qualitative semi-structured interviews using a phenomenological approach.
Results: The GPs' primary reason for discontinuity was miscommunication, but there was a multiplum of factors including delayed discharged letters involved. The general practitioners did not in general express disagreement with the changes made in hospital. There is a great variation in the GPs' way to handle medication changes etc.
Conclusion: The reason for poor continuity of medication changes in sector transition are primarily caused by procedural errors in the follow-up of the patient after discharge, and by insufficient communication between the primary sector and the hospital.

P-620
Health status of the patients exposed to low-dose versus high-dose carbon disulfide

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Introduction: The purpose of this study is to garner useful information through a comparative analysis of health status between the low-dose and the high-dose carbon disulfide (CS2) exposed patients.
Methods: The low-dose exposed group was defined as those exposed under 5 ppm (CS2 time weighted average concentration), and the high-dose exposed group was defined as those exposed 5 ppm and over. Study subjects were 663 workers of Wonjin Rayon Co., Ltd. located in South Korea. Multiple logistic regression analysis was used in this study.
Results: The high-dose exposed patients were more vulnerable to anxiety, felt higher level of depression, showed decreased cognitive function, and had difficulty to prepare food, compared with the low-dose exposed patients. The high-dose exposed patients lagged behind the low-dose exposed patient in total sleeping time and quality of sleep.
Conclusions: The vulnerability of the high-dose exposed patients in terms of mood, mental and sleep health needs to be acknowledged as the various characteristics of the individual that appears according to CS2 exposure. A variety of disease prevention and health promotion programs that focus on the health status of the patients need to be personalized and put them into practice.

P-621
Iatrogenic alerts in elderly patients with hip fracture in a dedicated orthogeriatric care pathway

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Introduction: Elderly people are at risk of repeated hospitalizations, some being drug-related and preventable. In 2011, French experts (Haute Autorité de Santé (HAS)) selected 5 "iatrogenic alerts" (IAs), from the existing sets of explicit criteria, to assess the appropriateness of medication in elderly patients. We aimed to examine IAs evolution before and after HAS' publication in patients with hip fracture, particularly prone to drug related problems, managed in a dedicated orthogeriatric care pathway.
Methods: A retrospective study with time series analysis was set up to analyze the prevalence of IAs between 2 periods: 2009–2012 and 2012–2015. All patients (>70 years) admitted after hip fracture surgery into a dedicated unit of perioperative geriatric care were included. IAs were defined as: (1) long half-life benzodiazepine (BZD); (2) antipsychotic drug (APD); (3) co-prescription of 3 psychotropic drugs or more (PD), (4) co-prescription of 2 diuretics or more (DIU) and (5) co-prescription of 4 antihypertensive drugs or more (AHD).
Results: 495 patients (86±6 years) were included and 20% of them had an IAs' prescription (N=101) with a prevalence of: 2% for DIU, 3% for APD in patients with dementia, 4% for AHD, 6% for BZD and 6% for PD. Only the prevalence of APD in patients with dementia had decreased between 2012–2015 vs 2009–2012 (respectively: 2% vs 5%, p=0.03).
Conclusion: The prevalence of IA in our population was low. After the publication of HAS' recommendations on IAs in the elderly only APD prescriptions decreased.

P-622
Improving Medication Prescription in the Context of Advanced Care Planning for Patients Receiving Nursing Home Care (IMPETUS): Study protocol of a cluster randomized controlled trial

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Introduction: Nursing home (NH) residents in the Netherlands have a limited life expectancy (mean survival 1.5–2 years) and suffer from the combined burden of advanced disease, functional impairment and severe care dependency. it is increasingly recognized that prescribing for these patients is better guided by a geriatric-palliative care (GPC) approach, with a focus on quality of life, comfort and medication-safety rather than on life extension. However, current prescribing practice lags behind: inappropriate prescribing is highly prevalent among NH residents. This study aims to align medication prescription with GPC goals in NH residents, by means of an Advance Care Planning with multidisciplinary medication review intervention.
Methods: A cluster randomized controlled trial will be performed in 2×20 long term care wards of University Affiliated NH, including 480 patients. NH patients are eligible if they wish GPC or have an indication based on their life-expectancy (≤1.5–2 years). The intervention consists of biannual structured multidisciplinary medication reviews followed by ACP discussions with patients/surrogates, compared to usual care. Primary outcome measures are medication appropriateness. Secondary outcomes are falls, hospitalizations, mortality, quality of life and patient/surrogate satisfaction with involvement in decision-making. A qualitative process analysis will also be performed.
Expected results: This study is expected to increase appropriateness of medication prescription (reduction of chronic and preventive medication, increase prescriptions for symptom management) without increase in mortality, hospital admissions, or adverse effects. We expect no negative effect on quality of life, and a positive effect on patient/surrogate satisfaction in decision-making.

P-623
Inappropriate drug prescriptions: Comparison of three tools for aiding drug prescriptions in the elderly

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Aim: To compare the proportion of prescriptions containing at least one inappropriate drug, as identified using three tools for optimizing drug prescriptions in the elderly.
Methods: Cross-sectional, observational study based on the analysis of prescriptions of patients discharged between 1 September and 31 October 2014 in a short-stay geriatrics unit at the Louis Domergue de Trinité Hospital in Martinique (France). Each prescription was analysed using 3 tools, namely one for general medicine (Vidal© drug dictionary) and two tools specifically designed for geriatrics (the Laroche list of potentially inappropriate medications, and the STOPP-START toolkit). The number of prescriptions containing at least one inappropriate medication was recorded as evaluated with each tool. These prescriptions were then compared to investigate whether the two geriatric tools identified the same prescriptions as being inappropriate.
Results: In total, 53 prescriptions were analysed. The male-female sex ratio was 0.70. The average age of the patients was 84.5±6.2 years. Analysis according to the Vidal© drug dictionary identified the greatest number of inappropriate prescriptions (28.3% of all prescriptions). The proportion of prescriptions containing at least one inappropriate drug was lower with the two tools specific to geriatrics (11% for the Laroche list and 7.5% for the STOPP START method).
Conclusion: The general medicine Vidal© drug dictionary identified more inappropriate prescriptions than the tools specifically designed for geriatrics. The tools for aiding drug prescriptions in the elderly identified different drugs as being inappropriate.

P-624
Inter-rater reliability of STOPPFrail [Screening Tool of Older Persons Prescriptions in Frail adults with limited life expectancy] criteria amongst 12 physicians

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Introduction: STOPPFrail is an explicit tool, developed by Delphi technique, to assist physicians with deprescribing medications in frailer older adults with limited life expectancy. The aim of this study was to evaluate the inter-rater reliability of applying STOPPFrail amongst physicians.
Methods: Twenty datasets were collated. The datasets comprised frail multi-morbid patients with a mean age of 79.3 (SD 5.68) years, a median number of 7 (IQR4–8) conditions and a median of 9 (IQR 7–11) medications. Two of the STOPPFrail originators reached complete agreement (Gold standard [GS]) in terms of the prescribing appropriateness for each case according to STOPPFrail. Of 181 prescribed medications, 91 were deemed inappropriate by GS assessment. Twelve physicians (3 Consultant Geriatricians, 3 Geriatric Medicine trainees, 3 General Practitioners and 3 Palliative Care physicians) independently applied the STOPPFrail tool to the datasets.
Results: Eighteen of twenty cases met STOPPFrail inclusion crite-

ria. These were correctly identified by 9 physicians: 3 physicians correctly included at least 16 of the 20 cases. The median kappa co-efficient between raters and the GS was 0.75 (IQR 0.73–0.83). Consultant Geriatricians stopped on average 8 more medications than others, 94 vrs 86, p=0.005. It took physicians on average 2.7 (SD 0.94) minutes to apply STOPPPFrail to each case.
Conclusions: The inter-rater reliability of STOPPFrail criteria is good when tested between physicians practising in different specialties.

P-625
Investigation of prescribing and utilization practices for injectable iron in the geriatric services of a university hospital center

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Introduction: The management of martial deficiency, is an important and frequent issue in the hospital management of geriatric population. Currently two specialties of injectable iron are mainly used (iron sucrose and carboxymaltose). There are no consensus references detailing in which situations to use one or the other of these 2 specialties. The aim of this study is to analyze the practices of use of injectable iron within the geriatric services of our university hospital center.
Methods: Retrospective observational study, including all the patients of 3 geriatric units. The data collection was made from a computerized extraction of injectable iron prescriptions over a period of one month, from December 1, 2016 to December 31, 2016.
Results: 26 patients were included. The mean age was 87.7 years [±5.5 years]. The average length of stay was 23.8 days [±15.6 days]. Patients in the sucrose group received on average 120 mg [±45 mg] iron vs 1000 mg [±223 mg] on average for the carboxymaltose iron group. In total, 54% (n=14) of the prescribed martial balances investigations were adapted according to the frenche Haute Autorité de Santé recommendations. Overall, 77% (n=20) of patients who received injectable iron had a martial deficiency.
Conclusion: This study shows an important difference in terms of iron dose received according to the prescribed specialty. The balance of anemia is not always well done before iron prescription. These results have to be confirmed but improvement in the management of martial deficiency is needed.

P-626
ITP in the elderly over 75 years: Epidemiological, clinical, biological and therapeutics characteristics. About a retrospective study

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Introduction: Idiopathic thrombocytopenic purpura (ITP) can also occur in the elderly over 75 years. At present, there are no specific data on the care of subjects aged 75 and over.
Methods: This is a retrospective study, focusing on a population of subjects above age 75, and having been previously diagnosed with ITP, by the Department of Internal Medicine University Hospital of Reims. The collection period spans the years between 2009 and 2015.
Results: Fifteen patients were enrolled. The average age of diagnosis was 83.9 years, females representing 11 cases (73.3%). The initial clinical presentation is dominated by a significant medical history of hemorrhagic bleeding. We note the presence of autoimmune diseases, previous diagnosis of ITP, including one case bullous dermatosis autoimmune, a case of autoimmune hemolytic anemia, and scleroderma. Two haematologic malignancies (cutaneous lymphoma, LLC) were also observed. A diagnosis of systemic lupus was raised concomitantly. After the diagnosis of ITP, vasculitis ANCA was observed (in the suites). During the diagnostic phase, the mean platelet count was 14,46G/l. one case of Evans syndrome was diagnosed. The first line of treatment is based on oral corticosteroid therapy for 14 of the cases. We observed: a month, in order to obtain a complete response for 9 patients, a partial response in 3 patients, 2 patients failed to respond; At 6 months, a complete response for 0 patients and recurrence for all patients was recorded. Polyvalent immunoglobulins have not been successful for patients, collected either alone or combined with corticosteroid therapy; as well as for platelet transfusions. Splenectomy was performed for a single patient with recurrence observed after 6 months. Alternative treatments used include: mycophenolate mofetil, in a case of partial response, dapsone for 2 patients with partial responses (with hepatic adverse events occurring after 2 years of its introduction), the cellcept for 2 patients, with a partial response for one patient, and a failure for the other (associated with adverse effects such dysuria and gastric heaviness), danazol for one patient with failed results, eltrombopag used for a single patient with adverse events that led to his stopping. Rituximab had been used for 3 patients with a complete response for one patient and a partial response in the other two. Romiplostim was used for one patient with a complete response following the use of Rituximab, which had provided a partial response for this patient. We incurred a loss of 5 patients. We noted one death within 1 month of the initial charge.
Conclusion: Large-scale studies should be conducted in this age population, in order to standardize these practices.

P-627
Low-dose pregabalin causes tremor in an old patient: A case report

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Introduction: Neuropathic pain is a common issue in the elderly care. The current recommendations are tricyclic antidepressant (amitriptyline) or selective serotonin reuptake Inhibitor (Duloxetine) or antiepileptic (gabapentin, pregabalin). However, these recommendations are quite large and there are no specific guidelines for the older patients. The initial choice of the drug is often made based on prescriber's habits and reevaluated based on tolerance.
Methods: We are reporting a case, notified to the pharmacovigilance, of tremor caused by low dose pregabalin.
Discussion: The patient, man, 86 years old, was hospitalized for myeloma. He presented neuropathic pain on the left leg. A treatment by pregabalin 50mg twice a day was introduced which was quite effective. The doses of pregalabin were adapted with the renal clearance of the patient (38 ml/min). Seven days later, important tremors at rest appeared. The tremors quickly and spontaneously improved after the stop of pregabalin. The pharmacovigilance concluded by the imputability of pregabalin in the tremors.
Conclusion: This case shows that pregabalin can causes adverse effect even at a lower dose than recommended. The treatment should be introduced at the lower dose possible and increase regarding the efficiency. Also, given the lack of specific recommendations, specific studies in the older population should be performed.

P-628
Medical treatment in frail elderly heart failure patients

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Background: Many elderly suffer from heart failure along with

other concomitant diseases. The existing pharmacological guidelines for treating heart failure are based on studies where frail elderly often are excluded. The concomitants diseases result in polypharmacy if the guidelines for all patient's diseases are followed and therefore prioritization between the recommended drugs is desirable.
Objectives: To determine whether guideline recommended pharmacological treatment of chronic heart failure can be adjusted to a frail elderly population including prioritization between recommended drugs.
Methods: A systematic search in the PubMed and EMBASE databases was conducted using relevant search-terms; rendering 7039 hits. Studies were included only if they focused on pharmacological treatment of heart failure in frail elderly patients. No original studies matched the inclusion criteria, whereas three reviews matched.
Results: None of the reviews presented clear pharmacological guidelines. They all stated that the treatment of frail, elderly heart failure patients needs to be individualized taking concomitant diseases, current medication and patient expectations into account. Some recommendations could be laid down:
- In any episode of congestion patients should be treated with diuretics.
- ACE-inhibitors are indicated in all systolic heart failure patients.
- Beta-blockers may be added to the treatment if tolerated.
- Digoxin is only indicated if the patient remains symptomatic.

Conclusion: This study revealed that guideline recommended treatment can be used in a frail elderly population, if tolerated and when taking concomitant diseases and treatments into account. Diuretics is the most important drug for the elderly heart failure patients.

P-629
Medication appropriateness for elderly nursing home residents with a limited life expectancy: A Delphi consensus study

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Introduction: Dutch nursing home (NH) residents are generally (very) old. They suffer from multi-morbidity and often use a large number of drugs. Medication inappropriateness is highly prevalent in this group. The Screening Tool to Alert to Right Treatment (START) and Screening Tool of Older Persons' Prescriptions (STOPP) are commonly used tools to enable physicians to assess medication appropriateness. However, these criteria may not be applicable for frail elderly with a limited life expectancy. The aim of this Delphi study is to adjust the current START/STOPP to these patients.
Methods: An online Delphi study, based on the 2015 START/STOPP criteria [1]. We invited international pharmacists/clinical pharmacologists, geriatricians, elderly care physicians and general practitioners with expertise on the subject. In the first round, we ask for each medication group whether the expert considers it appropriate to start this in our target patients, and if not, whether they would stop it (on 4-point Likert Scales). Consensus is defined as $\geq$70% of the participants answering (very)inappropriate or (very)appropriate. Participants are also asked to offer suggestions to adjust the STOPP.
Results: 23 international experts agreed to participate in the study. The first round is currently in process, final results are to be expected in August 2017.
Conclusions: We expect to need three rounds. The results will be used to develop adjusted START/STOPP criteria which will be applied in a cluster randomized controlled trial aimed at increasing the appropriateness of medication in NH residents in the Netherlands with a limited life expectancy (1.5–2 years).
References:
[1] O'Mahony D, O'Sullivan D, Byrne S, et al. STOPP/START criteria for potentially inappropriate prescribing in older people: Version 2. Age and Ageing 2015

P-630
Medication management and adherence – A diagnostic study of an elderly population in central Portugal

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Introduction: With ageing a multitude of problems may arrive, either due to genetic predisposition, lifestyle habits or other problems, that lead to the need of medication, requiring the need to implement strategies by the elderly and their families, to improve medication management and adherence. As such, it is important to understand their knowledge, difficulties and strategies used, to develop nursing interventions targeting this phenomenon.
Methods: A descriptive study was developed in elders who use day-centers, in Coimbra-Portugal. Data collection was obtained through a questionnaire with 4 open-ended questions and 26 close-ended questions.
Results: From the questionnaire's application, 128 answers were obtained. Regarding risk factors, 24,4% failed at least one question regarding spatial and/or temporal orientation, 76,4% had visual deficits, 35,8% lived alone, and 21,8% did not know how to read or write. As for adherence, 88,6% considered important taking their medication daily, and 79,7% believe in its benefits in their life quality. Interestingly, 15,4% admitted taking non-prescribed medication, with 35,0% using natural products. Difficulties mentioned were "forgetfulness" or memory loss (37,4%). When asked to prepare a pill, 9,8% were incapable of preparing, and 7,3% showed difficulties. The most commonly mentioned strategies for adherence were pillboxes with separators (31,7%) and asking for another person's support/help.
Conclusions: This study shows memory loss, and sensorial or cognitive impairments are difficulties that need to be considered when addressing this phenomenon. Also, pillboxes' use and capacitation of the caregiver are strategies that need to be considered when developing interventions regarding medication management and adherence.

P-631
Medication reconciliation in elderly cancer patients treated with chemotherapy

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Introduction: Medication reconciliation (MedRec) is considered to be an important strategy for increasing the safety of medication use. However, few studies have been carried out showing the effect of a multidisciplinary approach and MedRec program in elderly cancer patients. The objective is to measure the effect of an oncogeriatric approach integrating MedRec program on elderly cancer patients treated with chemotherapy.
Methods: A monocentric prospective study was implemented to

evaluate the overall survival, rate of readmission hospital and admission emergency at 1st, 2nd, 3rd month, acceptance rate of dosage drug and inappropriate medication.
Results: From 01/01/2017 to 04/03/2017, 79 patients were received in oncogeriatrics day hospital; mean age was 81.9±4.7. However data could be analyzed only for the first 38 patients. Death rate was 5.3%. Among the other 36 patients, 23 received chemotherapy, 6 were under active surveillance, 3 received palliative care, radiotherapy was applied for 2 patients, 1 patient had surgery, and 1 had another treatment. Readmission hospital rate was 23.7% and admittance to emergency was 21% for the first 3 months. Acceptance rate of dosage drug modification was 10/26, since data are not available for 10 patients. Chemotherapy adaptation was carried out in 18.2% of cases. Out of 22 patients with chemotherapy, 63.7% are still performing their chemotherapy, 13.6% completed it and 22.7% prematurely stopped it. Data will be available only by 6 months.
Conclusions: Increasing number of older patients (frail population) with cancer it could be incorporate "pharmaco-geriatric-specific" evaluations to reduce inappropriate medications, use of health care resources and adverse events.

P-632
Optimization of drug treatment by using FORTA: Results from the FORTAMED study

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Clinical studies on the efficacy and safety of drugs often do not include older people. Thus, there is a lack of data as to the appropriateness of numerous drug treatments in this vulnerable group. Indeed, these facts often turn the drug therapy of older people into a "field experiment". To address this problem, the FORTA classification (A: Absolutely; B: Beneficial; C: Careful; D: Don't) was proposed as a clinical aid for physicians. The FORTA List was developed in a Delphi process. To evaluate the effectiveness of FORTA we conducted a prospective randomized controlled trial in hospitalized elderly patients. Nearly half of our patients received standard care and the other half received standard care plus the FORTA method. In this study, we separately assessed changes of drug prescriptions at the anatomical-therapeutic-chemical system (ATC) level for eleven important diagnoses and compared over- and undertreatment rates between the groups. At the individual drug/drug group level, eight items (e.g. loop diuretics to treat arterial hypertension) were significantly altered by FORTA when use changes between admission and discharge were compared between groups. Furthermore, FORTA also significantly improved undertreatment (e.g. ACE inhibitors or statins to treat coronary heart disease) or overtreatment (e.g. thiazides to treat heart failure) for seventeen drugs/drug groups. Based on this trial, FORTA is the first combined positive/negative labelling approach at the individual drug level which is effective in reducing inappropriate prescribing and certainly ameliorates the drug treatment of older people.

P-633
Phenobarbital related confusion, dysarthria and ataxia

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An 83 years old male was admitted following a fall; he had tried to stand up off a stool, turned, fell and was unable to weight bear. X-ray showed fracture left neck of femur.His wife said that he has been confused, walking with a sway "like a drunk" with numerous falls in the last six months and his speech was slurred. Past medical history included atrial fibrillation and myocardial infarction. He had epilepsy - the last seizure was several years ago. He was on Warfarin, Bisoprolol 2.5mg once daily, Phenobarbital 30mg in the morning, 30mg in the afternoon and 60 mg nocte and Primidone 250mg three times daily. On examination he was slow to respond. His pulse was 70 and blood pressure 95/50, He had tachypnea and fever. Both his CRP and WCC were high. Diagnosis: The admitting team attributed the falls and his slow response to phenobarbital and primidone side effects. He also had a chest infection.Treatment: Antibiotic was started for the chest infection. The team decided to gradually reduce phenobarbital and primidone and ultimately replace these with newer antiepileptics. Five days later the confusion improved and the patient was more alert and rapid to respond. His wife and family noticed the marked difference and the therapist said "he is a different man".
Discussion: Primidone is a structural analogue to phenobarbital and is metabolized to phenobarbital. The side effects of phenobarbital include hypotension, drowsiness, lethargy, ataxia and hallucination. Decades ago phenobarbital and primidone were sometimes co-prescribed. Currently it is rare to prescribe these two medications together. It could be a challenge to reduce or stop one of them, especially if the patient has been fit free. If indicated, reduction or discontinuation should be done cautiously and slowly and by a specialist.
Conclusion:
- Side effects of drugs need to be considered in the differential diagnosis of confusion and falls especially in the elderly.
- It is important to remember that primidone is metabolized to phenobarbital.

P-634
Polypharmacy among oldest-olds from the island of Sardinia: preliminary results

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Introduction: Populations characterized by exceptional longevity have become a useful model to understand the aging process and the occurrence of age-related diseases. In 2000, a hot-spot of population longevity was identified in 6 villages in the mountain area of the Sardinia island, Italy, where the highest life expectancy in the world has been recorded. In the present study, a cohort of 50 nonagenarians living in these villages was interviewed to investigate health status, physical performance, and the use of medicaments.
Method: The frequency of common chronic illnesses, in correlation with the main pharmacological treatments, has been evaluated.
Results: The frequency of chronic disorders were: arthrosis (19.8%), hypertension (19.2%), diabetes (11.2%), osteoporosis (5.2%), stroke (5.2%), cardiovascular disease (4.3%), cancer (2.6%). These subjects had been treated mostly with the following class of drugs: non-steroidal anti-inflammatory drugs (17.3%), ACE-inhibitors (17.3%), acetylsalicylic acid and other antiplatelet drugs (13.3%), metformin (12.0%), loop diuretics (8.0%), calcium and vitamin D (8.0%), calcium antagonists (5.3%), beta-blockers (4.0%), thiazides diuretics (4.0%), bisphosphonates (4.0%), proton-pump inhibitors (2.7%), insulin (2.7%), angiotensin-II receptor blockers (1.3%).
Conclusions: Although these are preliminary results from an ongoing survey, we have observed that 56% of study participants including oldest-old healthy people and oldest-olds with several diseases have never been treated with any medicament. The other

44% of oldest-olds were treated with pharmacological therapy. Thus, we may conclude that even though these elderly subjects display age-related diseases, frequently untreated, they can attain advanced age, likely due to exposure to potential favorable factors shared by the population.

P-635

Polypharmacy, drug-drug interactions and anticholinergic load in HIV-infected elderly patients compared to uninfected ones

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Aim: To evaluate polypharmacy, potentially serious drug-drug interactions (DDIs) and anticholinergic burden in older people with and without HIV infection.
Methods: Two samples of 65+ year-old Italian persons were investigated; 225 were HIV positive outpatients and 200 HIV negative community-living people. Number and type of drug prescriptions were collected. Polypharmacy was defined as the co-prescription of 5+ drugs; potentially serious DDIs were identified by a validated computerized prescription support system; the anticholinergic load was calculated according to the Anticolinergic Cognitive Burden Scale.
Results: The mean number of prescribed drugs was higher in HIV+ persons compared to the HIV- ones (6.1 vs 4.8;$p<0.001$), as well as the prevalence of polypharmacy (73.3% vs 48.5%, $p<0.001$). Despite the mean number of potentially serious DDIs did not significantly differ between the two samples, the percentage of persons with at least one potentially serious drug-drug interaction was higher in the HIV+ sample compared to the HIV- one (73.3% vs 48.5%, $p<0.001$). On the other hand, the mean anticholinergic load was lower in HIV+ persons (0.15 vs 0.59, $p<0.001$). In multivariate analysis, adjusted for age and gender, HIV infection was independently associated with polypharmacy (OR=4.0; 95% CI: 2,4–6,7), at least one potentially serious drug-drug interaction (OR=1.9; 95% CI: 1,1–3,2) and a lower anticholinergic load (OR=0.28; 95% CI: 0,17–0,46).
Conclusions: Despite anticholinergic load was lower among HIV- patients, HIV infected patients had a higher burden of polypharmacy and a higher risk of potentially serious drug-drug interactions.

P-636

Prevalence of potentially inappropriate medication (PIMs) according to STOPPFrail (Screening Tool of Older Persons Prescriptions in Frail Adults with Limited Life Expectancy) in an older frailer cohort with a limited life expectancy

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Introduction: STOPPFrail is an explicit tool, developed by Delphi technique, to assist physicians with deprescribing medications in older frailer patients with limited life expectancy. The objective of this research was to identify potentially inappropriate medications (PIMs) according to STOPPFrail in a representative population.
Methods: Comprehensive multi-disciplinary applications for nursing home placement, between January and June 2016, were retrospectively reviewed. Each application comprised detailed data regarding diagnosis, medications, function and cognition. STOPPFrail criteria were applied where appropriate.
Results: 464 assessments were analysed. 38 were excluded because of incomplete information. STOPPFrail was applied to 274 (64.3%) patients; 152 patients did not meet STOPPFrail inclusion criteria. The STOPPFrial group were older (84 (SD 7) vs 77 (SD 13) years, $p<0.001$), had 1 more medical condition (7 (SD 2) vs 6 (SD 2), $p<0.001$), were more dependent (Barthel 8 (SD 4.29) vs 12 (SD 4), $p<0.001$) and more likely to have dementia (73.4% vs 42.8%, $p<0.001$). There was no difference in the median number of medications between the groups; 8 (IQR 5–10.5) vs 7 (IQR 5–10), p=0.490. STOPPFrail identified 894 PIMs in 247 patients (90%); a median of 3 per patient. The most common PIMs were medications without indication (66%), nutritional supplements (40%), high dose proton pump inhibitors (32%), lipid-lowering therapies (29%) and neuroleptics (25%).
Conclusions: PIMs are commonly prescribed for frailer older patients with limited life expectancy in whom nursing home admission is deemed appropriate. 90% of such patients were prescribed at least one PIM. Application of STOPPFrail criteria to this cohort has the potential to optimise medication use.

P-637

Proton pump inhibitor use and risk of hip fractures among community-dwelling persons with Alzheimer's disease – A nested case-control study

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Introduction: Hip fractures are major health concern among older persons with Alzheimer's disease (AD), who usually use many concomitant drugs for several diseases. Objective of this study was to investigate whether the use of proton pump inhibitor (PPI) is associated with risk of hip fractures among community-dwelling persons with AD.
Methods: In this nested case-control study, we included 4,224 (mean age 84.1) community-dwelling persons with AD, who encountered hip fracture, from nationwide MEDALZ cohort. For each hip fracture-case at the date of hip fracture, 16,852 controls (mean age 84.0) without hip fracture were matched. We investigated PPI use at the index date and during 10 years before. Conditional logistic regression was used to investigate the association between PPI use and hip fracture.
Results: PPI use at the index date was associated with an increased risk of hip fracture (adjusted OR 1.12, 95% CI: 1.02–1.23). The risk was increased in short-term use (<1 year) from the index date (adjusted OR 1.29, 95% CI: 1.14–1.45). No association was found between longer duration of use (>1 year), or cumulative use and risk of hip fractures.
Conclusions: PPI use was modestly associated with an increased risk of hip fracture among persons with AD. The risk was evident in short-term use but no association was found for long-term use. Thus, our findings do not support previous assumptions that

long-term PPI use would be associated with an increased risk of hip fractures.

P-638
Significant reduction in anticholinergic burden on an acute frailty unit

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Introduction: A number of commonly used medications have mild anticholinergic activity of which practising clinicians may not be routinely aware. The cumulative effect of multiple such medications, known as anticholinergic burden, has been associated with adverse events such as falls, hospitalisation and increased mortality. Interventions that reduce anticholinergic burden may therefore be beneficial. This project formed part of a quality improvement cycle aiming to reduce anticholinergic burden on an acute frailty unit. The first stage in this process was to quantify the impact of current practice on anticholinergic burden and this is reported here.
Methods: A retrospective review was completed of the first 100 admissions to the acute frailty unit in February 2017. Medication on admission and discharge was recorded. The Anticholinergic Cognitive Burden Scale was used to quantify and compare anticholinergic burden on admission and discharge.
Results: Data was available from 86 admissions. Mean age 83 (SD 7.5), 63% female. 57 (66%) were taking at least one anticholinergic medication. At discharge the total number of medications prescribed remained unchanged while the total number of medications with anticholinergic properties was reduced from 101 to 79. The anticholinergic cognitive burden score was significantly reduced from median 1 (0–3) to 1 (0–2) P=0.04.
Conclusions: Medication review within the acute frailty unit significantly reduced median anticholinergic burden but left a proportion of people still on medications with anticholinergic properties. A more targeted approach to reducing anticholinergic burden may be more effective and these data will aid the development of suitable interventions.

P-639
The effect of drug adjustment on hospitalized patients and its examination

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Introduction: Polypharmacy is known to cause various disadvantages in hospitalized patients. Therefore, we have tried to reduce the number of medications during hospitalization while careful monitoring.
Methods: We analyzed 253 patients, discharged from the geriatric ward in the University of Tokyo Hospital, from April 2016 to March 2017. We counted the number of medications on admission and at discharge. We divided the patients into three groups; patients with increased, the same and decreased number of oral medications at discharge. In those groups, we assessed the basic characteristics, comorbidities, and the number and types of medications.
Results: We collected 253 patients (111 men and 142 women), aged from 52 to 97 (82 on average). They were taking 7 medications on admission and it was significantly decreased to 6 at discharge on average. Out of them, the number of oral medications was increased in 21% (53/253), the same in 33% (83/253) and decreased in 46% (117/253). 23 patients were able to reduce 5 or more drugs, up to 15 drugs. Among patients with reduced number of medications at discharge, the mean number of discontinued drugs was 3.
Conclusions: In our inpatient services, we succeeded in reducing the average number of one medicine during hospitalization. Patients who were hospitalized for emergency could be reduced more medicine than expected patients. In addition, the decrease in cardiovascular drugs and peptic ulcer therapeutic drugs was conspicuous. We assume that the review after hospitalization of hypertension and gastrointestinal diseases and so on result in drug reduction.

P-640
The impact of age on the incidence of adverse drug events (ADEs) causing hospitalisation in cancer patients

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Introduction: Over 60% of all cancers are diagnosed in patients' ≥65 years, many of whom have other co-morbidities. Multi-morbid people with polypharmacy have a high risk of adverse drug events (ADEs). The aim of this study was to ascertain the incidence of ADEs causing hospitalisation in older cancer patients and compare them to the non-cancer older population [1–3].
Methods: This prospective observational study included adults (≥16 years) admitted under a specialist tertiary oncology service. The proportion of patients experiencing a probable/certain non-trivial ADE, according to WHO-UMC causality assessment [4], causing/contributing significantly to acute admission was recorded.
Results: 265 participants participated; 54% female. 52.5% ≥65 years, 35.5% ≥70 years and 7.5% ≥80 years. The median age was 66 (IQR57–72). Older adults, compared to younger adults, had significantly more comorbidities, median 8 (IRQ5–10) vs 5 (IR 3–6), $p<0.001$, and took more medications, 7 (IQR4–10) vs 4 (IQR2–7), p=0.026. The most common cancers were breast (18.5%), lung (18.5%) and colorectal (9.1%).82 patients (30.9%) were affected by ADEs, in whom 74 caused/or contributed significantly to admission. ADE occurrence had no significant relationship to age (p=0.960), gender (p=0.399), length of stay (p=0.537) or number of daily drugs (p=0.533). ADE incidence was similar in older and younger adults for both non-cancer drugs (14.4% vs 9.5%, p=0.141) and cancer-specific drugs (13.7% vs 15.9%, p=0.469). The most commonly reported ADEs were neutropenia with associated infection in 23%, nausea/vomiting in 18.9% and major constipation in 17.6%.
Conclusions: Approximately 1 in 4 acute admissions in adult cancer patients are ADE-related. ADEs are caused by non-cancer drugs as frequently as cancer specific treatments in both older and younger adults. Older cancer patients experience ADEs at similar frequency to their younger counterparts. The ADE rates reported here for older cancer patients are higher than those previously reported in the general acute population.
References:
[1] Lazarou J, Pomeranz BH, Corey PN. Incidence of adverse drug reactions in hospitalized patients: a meta-analysis of prospective studies. Jama. 1998; 279(15): 1200–5.
[2] Pirmohamed M, James S, Meakin S, Green C, et al. Adverse drug reactions as cause of admission to hospital: prospective analysis of 18 820 patients. Bmj. 2004; 329(7456): 15–9.
[3] Wiffen P, Gill M, Edwards J, Moore A. Adverse drug reactions in hospital patients. A systematic review of the prospective and retrospective studies. Bandolier Extra Evidence Based Healthcare. 2002.
[4] WHO. World Health Organization (WHO), Uppsala Monitoring Centre. The use of the WHO-UMC system for standardized case causality assessment. Available at: http://www.who-umc.org/graphics/4409.pdf.

Area: Pre and post operative care

P-641
A change for a restrictive transfusion regimen in a hip fracture care pathway is associated with a shift of transfusion to rehab units. The UPOG-TRF2 study

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Introduction: A restrictive transfusion strategy for elderly patients with hip fracture (HF) is safe and reduces cardiovascular outcomes, but it may postpone transfusion to rehabilitation units. We hypothesized that a change of transfusion regimen from a liberal to a restrictive regimen may cause a shift of transfusion to rehab units.
Material and methods: A retrospective analysis of a time series analysis of consecutive patients >70 years admitted for a HF to our UPOG, comparing a liberal transfusion regimen (LR) (Goal: hb level ≥10 g.dL-1, 1st period) to a restrictive regimen (RR) (Goal: hb level ≥8 g.dL-1 or transfusions according to symptoms, 2nd period). All transfusions from ED/OR to UPOG and rehab units were reported and compared according to transfusion regimen.
Results: 667 patients were included (86 y/o, CIRS 52 9 [6–12]), 193 in the LR group, 474 in the RR group. 396 patients (59%) were transfused for a total of 1003 red pack cells (RPC). In liberal regimen, 133 patients (69%) were transfused with 386 RPC (mean 2 per patients and 2.9 per transfused patient), 64 (33%) in ED/OR, 96 (50%) in UPOG, and 18 (9%) in rehab. In restrictive regimen, 263 (55%) with 617 RPC (mean 1.3 per patients and 2.3 per transfused patient), 105 (22%) in ED/OR, 222 (47%) in UPOG, and 87 (18%) in rehab.
Conclusion: Despite a transfusion shift to rehab units, a change for a RR is associated with a reduction of total transfusion during management of HF.

P-642
A post-surgical review of operative debridement of sacral pressure ulcers

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Background: Pressure ulcers frequently found in the older population are associated with significant morbidity and mortality. Reviewing the literature, a limited number of studies exist reviewing 30 day post-operative occurrences in patients undergoing surgical debridement of decubitus ulcers.
Aim: The aim of this review is to better understand post surgical complications in older patients undergoing surgical debridement of decubitus ulcers.
Methods: Operative records were reviewed from 2012 to 2016 at a community based hospital. Records were reviewed for quantity and type of post-operative occurrences. Individual post-operative occurrences were reviewed with regard to patient age, gender, degree of sacral ulcer, and pre-existing co-morbidities. Further records were reviewed to ensure comparability in terms of debridement technique.
Results: The mean age of the patients was 64.1 years of age. Intra-operative anesthesia used: general 86.1%, monitored anesthesia care/IV sedation 12.7%, and local 1.3%, with an average surgical duration totaling 28 minutes. Mean hospital length of stay was 8 days with 80% of patients alive at 30 days. Upon quantifying post-operative occurrences it was found 61% (43/70) patients had no post operative occurrences, 20% (14/70) had 1 post-operative occurrence, 10% (7/70) had 2 post-operative occurrences, 5.7% (4/70) had 3 post-operative occurrences and 2% (2/70) had 4 or more post-operative occurrences.
Conclusions: Higher post-operative occurrences were found with patients who had larger wounds or wounds with an active infection and a greater number of pre-surgical co-morbidities.

P-643
Association between anesthetic drugs and postoperative delirium in elderly patients with hip fracture in a dedicated orthogeriatric care pathway

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Introduction: Postoperative delirium (POD) is one of the most common complications after hip fracture surgery and is associated with a worse prognosis. The impact of anesthetic drugs on the incidence of POD has not yet been evaluated. Our main objective was to compare patients with or without POD with regard to drugs they received during anesthesia.
Methods: Between 2009 and 2016, all patients (>70 years) admitted after hip fracture surgery into a dedicated unit of peri-operative geriatric care were included.
Results: We included 559 patients: mean age: 86±6 years, 429 (77%) females, CIRS 52: 9 [6–12], ADL: 5 [3–6], number of drugs per day: 5 [3–8], length of stay: 11 [9–15] days. 220 patients (39%) suffered from POD after the surgery. We found no difference between the 2 groups with regard to drugs they received during anesthesia: cardiovascular drugs (atropine, prostigmine, ephedrine, neosynephrine, noradrenalin), induction and maintenance drugs (curare, sufentanyl, remifentanyl, propofol, etomidate, midazolam), anti-nausea drugs (corticoids, droleptan, ondansetron), antalgic drugs (paracetamol, tramadol, nefopam, nonsteroidal anti-inflammatory drugs, ketamine, morphine) or blood transfusion. Patients with POD were more likely to have dementia (59% vs 26%, $p<0.001$), anemia (98% vs 95%, $p=0.05$), swallowing disorders (56% vs 26%, $p<0.001$), bladder retention (30% vs 22%, $p=0.04$) and stool impaction (50 vs 37%, $p=0.004$) than others.
Conclusion: In comparison with comorbidities and acute complications, anesthetic drugs regimen may not influence occurrence of POD in a dedicated geriatric care pathway.

P-644

Association between cognitive status and outcomes in elderly patients with hip fracture in a dedicated orthogeriatric care pathway

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Introduction: Dementia is associated with a worse prognosis of hip fracture, but the impact of a dedicated geriatric care pathway on the prognosis of these patients has not been evaluated. According to the cognitive status before surgery, our main objective was to compare mortality rate at 6 months; secondary outcomes were to compare in-hospital complications, the risk of new institutionalization and the ability to walk at 6 months.

Methods: Between 2009 and 2015, all patients (>70 years) admitted after hip fracture surgery into a dedicated unit of peri-operative geriatric care were included: patients with dementia (DP), without dementia (NDP) and with cognitive status not determined (CSND). Data are expressed as Hazard Ratio (HR) for multivariate cox analysis or Odds Ratio (OR) for multivariate logistic regression analysis and their 95% confidence interval (CI).

Results: We included 650 patients (86±6 years): 168 DP, 400 NDP and 82 CSND. After adjustment for age, sex, comorbidities, polypharmacy, pre-fracture autonomy, time-to-surgery and delirium, there were no significant differences for 6-month mortality (DP vs NDP: HR=0.7 [0.4–1.2], DP vs CSND: HR=0.6 [0.3–1.4], CSND vs NDP: HR=0.8 [0.4–1.7]); but DP and CSND were more likely to be newly institutionalized after 6 months compared to NDP (OR DP=2.6 [1.4–4.9], p=0.003, OR CSND=2.9 [1.4–6.1], p=0.004). 92% of population was walking after 6 months (63% with assistance): no difference was found between the 3 groups.

Conclusion: In a dedicated geriatric care pathway, DP and CSND undergoing hip surgery have the same 6-month mortality and walking ability as NDP.

P-645

Causes and consequences of surgical delay in older patients with hip fracture

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Introduction: The clinical consequences of surgical delay in older patients with hip fracture are controversial. We studied the clinical and survival differences in older patients admitted with a hip fracture according to the surgical delay and the reason of such delay.

Methods: Prospective observational study of all. All patients >79 years admitted with a hip fracture in an Orthogeriatrics Unit in 14 months, followed for 18 months. Subjects were classified in two groups: early surgery (≤48 hours from admission) and surgical delay (>48 hours).

Results: 468 surgeries, 33.1% with surgical delay (preoperative length of stay 5.3±2.1days vs 1.0±0.9 in early surgery). No differences in age, gender, functional and cognitive status or type of fracture between groups were found. The early surgery group had better nutritional status (MNA-SF: 10.8±2.8 vs 10.1±2.7, p=0.015), used fewer drugs (5.9±3.4 vs 7.2±3.6, p<0.001), polypharmacy (52.9% vs 68.2%, p=0.001), less clopidogrel (1.3% vs 12.8%, p<0.001) and coumadin (7.1% vs 20.4%, p<0.001), had a shorter length of stay (11.5±6.1 vs 15.6±6.7 days, p<0.001) and lower surgical risk (ASA score 2.5±0.6 vs 2.8±0.6, p<0.001). The surgical delay group had more medical complications [(81.2% vs 69.7%, p=0.005; the most frequent urinary infection (30.4% vs 20.6%, p=0.026)] without differences in surgical complications or in-hospital mortality. No differences in mortality at 1, 3, 6 and 12 months after surgery were found. Main reasons of surgical delay were: high INR 25.6%, clopidogrel 13.1%, operating room not available 36.7%, the latest was associated with higher mortality at 1 (6.7% vs 1.8%, p=0.05), 3 (13.5% vs 4.5%, p=0.012), 6 (21.8% vs 8.9%, p=0.004) and 12 months (33.2% vs 16.1%, p=0.001) and higher perioperative heart failure (15.0% vs 7.1%, p=0.042).

Conclusions: One third of our patients with hip fracture had a surgical delay, mainly due to coagulation disorders and unavailability of an operating room. Surgical risk, medical complications and length of stay were lower in those with early surgery.

P-646

Characteristics of elderly orthopedic patients' care

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Introduction: As a result of increases in life expectancy, the world population is getting older and the proportion of the elderly in the total population has been increasing rapidly. During the twentieth century, life expectancy at birth increased from 48 to 74 years for males and from 51 to 79 years for females. The aging of the population brings significant health problems. The number of elderly patients undergoing orthopedic surgery has been also increasing due to changes in muscle and skeletal system with aging. This review provides an overview to relevant literature on characteristics of elderly orthopedic patients' care.

Methods: A literature search (2000–2017) was carried out, using MEDLINE, Pub Med, Science direct, Scopus, Cochrane library, Turkish Medical Index and related institutional websites. Key words included "Older adults", "Elderly", "Orthopedic patient", "Nursing care".

Results: Elderly orthopedic patients have many insufficiency and changes in the system and diseases. Development of anesthesia,

surgical techniques and perioperative care decreased perioperative mortality in the elderly group, mortality rate; 2.2% in the 60–69 age group, 2.9% in the 70–79 age group and 5.8–6.2% in the 80 and over age group. The main purpose in the care of the orthopedic elder is; preventing or minimizing complications, and maintaining the health of the patient at the highest level.
Conclusions: For effective treatment and care for the elderly, comprehensive evaluation of age-related changes, existing chronic diseases and the risks of orthopedic surgery should be performed and care should be planned.

P-647
Characteristics of the patients with hip fracture admitted to the Public Hospitals of Castilla y León, Spain

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Introduction: Hip fractures are a prevalent fragility fracture secondary to osteoporosis that involves high morbidity and mortality. Hip fracture registries are a good way to improve knowledge about this condition and its quality of care. The aim of this study is to describe the characteristics of the patients with hip fracture admitted to the Public Hospitals of Castilla y León during a period of time, and to analyze the variables that influence their hospital stay.
Method: The Castilla y León orthogeriatric work group elaborated a common register to collect data of hip fractures. Patients 75 and older hospitalized with hip fractures in the 13 public hospitals in the Community during November 2014 and October and November 2015 were included in the study. It is a multicentric, prospective and observational study in which clinical, functional, social variables, and in-hospital mortality, were collected.
Results: A total of 776 patients with a mean age of 86±6 were analyzed, 79% women. 33.4% were living in a nursing home prior to fracture. 93% underwent surgery. The surgical delay was 4±2.8 days, and the average hospital stay was 10±4.7 days. Only 9.5% received general anesthesia. The 66.5% of the patients had medical complications: 35.5% developed delirium, and 55.5% required a transfusion. 4.6% died during hospitalization. The average pre-surgical stay was related to the overall stay ($p<0.001$).
Conclusions: Hip fracture registers constitute an essential tool for evaluating the process and for improving the treatment quality of these patients.

P-648
Comparison of cemented augmented PFNA and Gamma nail III in hip fracture surgery in elderly patients

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Introduction: A stable fixation to allow immediate mobilization of elderly patients with full weight-bearing after hip fracture (HF) surgery is a challenge. The cement augmentation of the Proximal Femoral Nail Antirotation (PFNA) is a new internal fixation technique that causes minimum bone loss in femoral head and neck. We aim to demonstrate that cement augmentation of the PFNA was associated with a reduction of lateral blade migration.
Material and methods: All patients >70 y/o admitted for intertrochanteric HF to our emergency department were included from 2009 to 2016. Clinical and biological data were prospectively collected, including a 6-month follow-up. Comparison of patients treated with cement augmentation of the PFNA (PFNA group) and Gamma Nail III (GN group). Medical charts, with X-ray radiography ± CTscan were reviewed by 3 orthopedic surgeons to assess diagnosis of orthopedic complication. The primary endpoint was lateral blade migration. Secondary endpoint was in-hospital 6-month mortality.
Results: Monocentric retrospective study, 271 elderly were included: 57 (PFNA) and 214 (GN) patients. The two groups were comparable for age, sex and comorbidities. A lateral blade migration was reported in 12 patients (GN group) and 1 patient (PFNA group)(5.6 vs 1.7%, p=0.389 respectively). No complications related with cement augmentation were observed.
Conclusion: We observed no difference of lateral blade migration outcome in elderly patients admitted with an intertrochanteric fracture during a 6 month post-operative follow-up. Further studies are needed to determine the interest of cement augmentation of the PFNA.

P-649
Effect of heterogeneity of weight status on all-cause mortality in older adults: a study on type 2 diabetes patients undergoing subtotal gastrectomy for cancer

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Introduction: The survival benefit of excess body weight across various subpopulation groups remains controversial. We assessed the effect of weight status on all-cause mortality among type 2 diabetes patients undergoing subtotal gastrectomy for cancer.
Methods: This was a retrospective study conducted to examine the medical charts of 210 patients with type 2 diabetes treated at two university hospitals. All patients had undergone subtotal gastrectomy for cancer between January 1993 and December 2012. Participants were classified as either normal weight (BMI: 18.5–24.99 kg/m^2) or overweight/obese (BMI: ≥25 kg/m^2). Weighted Cox proportional hazard regression models using inverse probability weighting were constructed to adjust the differences between groups.
Results: The mortality rate for the entire study population was 27.3% after a median follow-up duration of 7.5 years (interquartile range, 4.5–9.3 years; maximum, 15.3 years). The overweight/obese group had a significantly lower risk of all-cause mortality (hazard ratio, 0.46; 95% confidence interval, 0.38–0.62; p0=0.001) compared

to the normal weight group. The overweight/obese group was associated with lower all-cause mortality in patients <65 years of age (p=0.01 for interaction) with a possible association in patients with a diabetes duration <5 years (p=0.07 for interaction).
Conclusions: A significantly lower all-cause mortality was observed in the overweight/obese group of patients with type 2 diabetes compared to the normal weight group after undergoing subtotal gastrectomy for cancer, although the significance was not maintained in the subgroup of patients ≥65 years of age.

P-650
Emergency laparotomy in the older patient. Perioperative care of older people admitted to general surgery – Salford General Surgery (POPS-SG)

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Objectives: The purpose of our study was to describe the characteristics and clinical outcomes of a cohort of elderly patients undergoing emergency laparotomy and elderly care in reach input
Methods: We carried out a prospective non-randomised study of patients 75 or older admitted to general surgical wards following an emergency laparotomy. All individuals underwent comprehensive geriatric assessment, targeted multidisciplinary interventions and timely discharge planning.
Results: Between 08/09/2014 and 28/02/2017 we reviewed 81 emergency laparotomy patients. Average age of 82.5±5.0, 5, 53.1% females, 45.7% ASA class I-II, 3.7% lived in residential home, 85.2% and 54.3% were independent for basic and instrumental ADLs respectively, 70.4% mobilised with no aids or a cane, 11.1% cognitively intact and 89.7% continent. On discharge fewer patients were independent in basic ADLs (p 0.004) but there were no other significant differences in functional status. Patients presented 5.2±3.0 comorbidities. Hypertension (65.4%), ischemic heart disease (27.2%) and atrial fibrillation (24.7%) were the most frequent. Average medications on admission were 7.7±4.2. Anaemia (44.4%), delirium (32.1%), acute renal injury (29.6%) and constipation (24.7%) were the most common complications and only 6 patients (7.4%) were complication-free. Mean length of stay was 21.8±19.6, 4.9% were in hospital at 60 days, in- hospital mortality was 8.6%, observed 30 and 90 day mortality (after surgery) were 6.2% and 13.6% respectively and 30-day readmission 9.5%.
Conclusions: Older persons undergoing emergency laparotomy present significant comorbidity, polypharmacy, and high morbimortality. We advocate global assessment and management by multiprofessional teams experienced in care of the older patient.

P-651
Geriatric depression in pre-operative older patients with meningiomas

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Introduction: The aim of this study is to examine if pre-operative older patients with meningiomas show differences in their depression levels when compared with healthy controls and patients with other types of chronic diseases.
Methods: Twenty-three pre-operative patients (11 females, 12 males) with meningiomas in various brain regions (8 right, 7 left and 8 bilateral,) and of various sizes participated in the study. Their mean age was 68.60 years (SD = 12.26, range 31–77), level of education 9.47 years (SD = 3.82) and time since the first signs of possible brain disease (headaches, fatigue, fainting) were 4.21 years (SD = 2.19). A control group of 20 healthy participants with similar demographics was examined (mean age = 69.25, mean education = 11 years) and a group of 19 patients with different types of chronic diseases were also examined (mean age = 69.10, mean education = 12 years). All three groups of participants completed the Geriatric Depression Scale (GDS).
Results: Results revealed that pre-operative older patients suffering from meningiomas report a higher total score in GDS with more symptoms of depression when compared with older patients who suffer from other types of chronic diseases and healthy older controls.
Conclusions: Future studies should clarify the possible factors that affect and differentiate the depressive symptomatology in patients with meningiomas.

P-652
Hip fracture outcomes in patients with Parkinson's disease

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Objectives: Patients with idiopathic Parkinson's disease (PD) are at a high risk for fracture, tend to have a longer hospital stay and unlikely to return home within 30 days [1]. The aim of this audit was to establish if outcomes from hip fracture in people with PD can be improved with targeted interventions.
Methods: A PD sticker was created to highlight PD patients on the board round. We devised a PD Hip Fracture checklist which ensured: 1) Clinic letter printed on arrival2) PD medications prescribed and given on time3) Lying and standing blood pressure measurement4) Bowel care with regular laxatives and suppositories.PD medications were made available on the ward, with a poster reminder on the drug trolley & drug cupboard where the PD meds are kept. PD patients were prioritised by the therapists and regular educational sessions for staff.
Results: 28 PD patients pre-intervention (Dec 2012–14) were less independently mobile pre-operation (21.4%) compared to 808 non-PD (48.3%). Hence home to home after operation was only 28.5% with higher length of stay (LOS) of 26.1 days compared to non-PD patients which was 58.1% and 21 days respectively.Following the intervention (May 2015–16), home to home after operation improved to 40.9% with lower LOS of 15 days compared to non-PD patients which was 59.6% and 15.2 days respectively.
Conclusions: Targeted interventions improved outcomes for PD patients with hip fracture. Cost-effective interventions such as there are essential to reduce the burden of hospitalisation for patients, carers and healthcare systems.
References:
[1] Measuring the burden and mortality of hospitalisation in Parkinson's disease: A cross-sectional analysis of the English Hospital Episodes Statistics database 2009–2013 Vincent Low, Yoav Ben-Shlomo, Elena Coward, Suzanne Fletcher, Richard Walker, Carl E. Clarke

P-653
Hip fracture patients: survival versus mortality

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Introduction: The in hospital mortality rate of hip fracture ranges between 2.7% to 15% in different studies.
Aim: To study the differences between hip fracture patients who survived and those who died during hospitalisation.
Methods: Retrospective analysis of the medical records of all hip fracture patients admitted in one-year period in a UK teaching hospital. Demographics, residence, ASA score, mobility and time to surgery data were collected, downloaded on excel and analysed.
Results: 527 patients were admitted in the study period and 59 died as inpatients (11.2%). 6 patient notes were not available. 48 had an

operation and 5 were treated conservatively.33/370 (9%) of women and 26/157 (17%) of men died. 44/417 (11%) of patients admitted from their own home died compared to 10/63 (16%) of those from residential care and 5/21 (24%) of those who had the fracture in hospital. None of the 4 patients with ASA 1 died, 5/118 (4%) of ASA 2 patients died, compared to 35/333 (11%) of ASA 3 patients and 13/51 (26%) of ASA 4 patients. 15/197 (8%) who were mobile without aids died, compared to 16/150 (11%) who were mobile with one aid and 15/86 (17%) who were mobile with two aids. However just 1/10 (10%) of those with no functional mobility died.37/407 (9%) of patients operated upon within 36 hours died, compared to 16/97 (16%) of those who had the operation after 36 hours. 6/23 (26%) of those who had no operation died. The documented cause of death in 2/3 of the patients was chest infection.

Conclusion:

- Men have higher inpatient mortality than women.
- Patients from nursing homes had a higher in hospital mortality than those living in their own homes.
- The higher the ASA score the higher the inpatient mortality.
- The poorer the mobility the higher the inpatient mortality.
- The more delayed the surgery after 36 hours the higher the mortality

P-654
Hip fractures: What I wish you had told me

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Introduction: Hip fractures are associated with significant cost, distress, morbidity and mortality, with 10% of patients dying within 30 days (1). Patients approach hip fracture repair with expectations about their outcomes. Evidence shows that pre-operative expectations predict important post-operative outcomes; including healing time, quality of life and functional improvement (2). A key to addressing these surgical expectations is physician–patient communication. This project was a service evaluation of our service and the need for a hip fracture booklet to improve communication.

Methods: A service evaluation was carried on post-operative hip fracture patients at a large teaching hospital. Surveys were distributed and collected over a 1-month period. The aim was to determine: i) if patients wanted more information about their care; ii) common themes patients would like to have known about in relation to their care; iii) if patients would like to receive an information booklet about their care. A booklet was then designed and a focus group held to discuss it prior to implementation.

Results: i) 67% of the patients and relatives surveyed wanted to receive more information about their care. ii) Common themes included; What anaesthetic will I have? Will I be asleep? When will I walk again? What physiotherapy will I get? What is the timescale of hospital admission? iii) 100% of patient and relatives surveyed wanted a hip fracture booklet.

Conclusions:

- There is a need for the implication of a hip fracture booklet into our practice.
- Interestingly patients at the focus group requested that Advance Care Planning was included.

References:

[1] Scheier MF, Matthews KA, Owens JF et al. Dispositional optimism and recovery from coronary artery bypass surgery: the beneficial effects on physical and psychological well-being. Journal of Personality and Social Psychology, 1989; 57: 1024–1040.

[2] Mahomed NN, Liang MH, Cook EF et al. The important of patient expectations in predicting functional outcomes after total joint arthroplasty. Journal of Rheumatology, 2002; 29: 1273–1279.

P-655
Identification of frail elderly in need of intensive care monitoring after hip fracture surgery using the ISAR score

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Background: Patients with hip fractures are often frail elderly. Guidelines suggest close postoperative monitoring to minimise the risk of complications. In our hospital, frail elderly are therefore closely monitored at the Intensive Care Unit (ICU). Since there are no validated tools to identify frail elderly in need of ICU monitoring, we use a modified version of the Identification of Seniors At Risk (ISAR) [1]. This study evaluated the use of the modified ISAR score as a predictor of necessary ICU admission in frail elderly after hip fracture surgery.

Methods: We retrospectively collected data of all patients aged ≥70 years with hip fractures who underwent surgery followed by ICU monitoring in the Westfriesgasthuis hospital in 2015 and 2016. We analysed the ability of ISAR outcome for each patient to predict a necessary ICU admission, defined as one or more of the following interventions: administration of vasopressors, >6L oxygen/min, any form of rate control for heart rates <40 or >150 bpm, ≥4L IV crystalloid infusion within 24h and/or >4 units of blood within 24h.

Results: 186 patients were included in this study. Overall, 47.8% of ICU admissions were categorised as necessary. Accuracy of the ISAR score to predict a necessary ICU admission was analysed using the ROC curve. The area under the curve (AUC) was 0.506, which represents a worthless accuracy.

Conclusions: The modified ISAR score is not able to predict necessary IC admissions in elderly patients after hip fracture surgery and is therefore not recommended as a preoperative screening tool [1.] Identification of Seniors At Risk-10 score, as used in the Westfriesgasthuis hospital, Hoorn, The Netherlands1. Does the patient regularly need help in daily household activities like cooking, financial administration, preparing medication, etc.? (iADL) 2. Does the patient regularly need help in taking care of his or herself (getting dressed, personal hygiene, etc.)? (ADL) 3. Has the patient recently been contacting his/her family physician more often, or has he/she been hospitalised for one or more nights during the past six months? 4. In general, does the patient have problems in hearing or seeing? 5. In general, does the patient have problems with his/her memory? 6. Is the patient feeling down or depressive? 7. Does the patient use more than three different medications? 8. Does the patient have problems in mobility, or has he or she experienced one or more falls during the past six months? 9. Has the patient lost weight during the past six months, or does the patient have difficulties eating or drinking? 10. Has the patient had an episode of confusion during a previous illness or hospital admission?

P-656
Idiopathic normal pressure hydrocephalus in elderly: response to shunting and predictors of response taking into account frailty and Alzheimer LCS fluid biomarkers

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There are currently no European guidelines for the management of normal pressure hydrocephalus (HPN) in the elderly, on the one hand because of the difficulty of establishing a very precise nosological framework, and on the other hand because of the lack of large-scale randomized studies in this area. In 2015, the American Academy of Neurology developped a report of the

guideline development on the study of the international literature on idiopathic normal pressure hydrocephalus and its response to shunting and predictors of response with a view to standardizing care. Obviously, these guidelines didn't take into account the elderly patient's frailty, the presence of cognitive disorders and the value of degenerative cerebro spinal fluid biomarkers. The aim of our study is to propose, according to the data of the international litterature, a mode of evaluation and management of the elderly patient suspected of HPN in collaboration with the different interlocutors that the patient will meet in his journey of care, and frailty characterization. We have prospectively recruited elederly patients over 65 years of age suspected of HPN in Nancy Lorraine Memory Hospital Center. All participants were submitted to a broad clinical and neuropsychological evaluation. Frailty was evaluated according to the Fried criteria. Cerebrospinal fluid analysis for Alzheimer's disease biomarkers was systematically analyzed. The main objective was to obtain more reliable answers in terms of diagnosis and surgical decision, of re-educative and neuropsychological follow-up of the elderly with standardized assessment.

P-657

Immediate and very long term results of colorectal cancer treatment in the elderly

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Introduction: More than 50% of Colorectal Cancer occurs in patients over 70 years old, and its prevalence will increase in the next decades, in line with the increase in life expectancy. The aim of this work is to determine both, inmediate postoperative results and long-term oncologic results in ancient patients electively operated on colorectal cancer.
Material and methods: A single centre retrospective study of patients undergoing elective surgery for colorectal cancer, between January-1991 and December-2012. The follow-up period ranges from 3 to 25 years. Frequencies of the different qualitative variables were studied with the Chi-square test. Long-term survival was analyzed using the Kaplan Meier and Log Rank method.
Results: 1031 patients, 571 males (55.4%), aged between 70 and 100 years, divided into five groups: 70–74, 75–79, 80–84, 85–89 and> =90 years. Potentially curative surgery was performed in 883 (85.6%). Palliative care: 137 (13.3%). Unresectable tumor: 44 (4.3%). From the 1031 patients just 32 required reoperation (4.3%). Evisceration happened in 28 (3.8%), hemoperitoneum in 8 (1%) and anastomotic leak in 23 (3.5%). Global 30 day mortality was 1.8%; 0, 1, 1.6, 1.7 and 11.8% by age groups. Overall 5-year survival: 76.6%. By age group: 82%, 80.5%, 71%, 69% and 57.4%, respectively.
Conclusions: 1. In our experience, with adequate pre- and postoperative care, the results obtained in the elderly are comparable to young patients, except those older than 90 years. 2. Age is not a limit to carry out an appropriate treatment in the elderly.

P-658

Impact of comprehensive geriatric care in trauma service on the lenght of stay (LOS) in elderly patients over 75 years old with femoral neck fracture (FNF)

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Introduction: In 2016, at University Hospital of Nice (UHN), a collaboration between orthopedics surgeons and geriatricians was created in order to improve outcomes for older patients with a model of care "routine geriatric consultation within a trauma service". We decided to measure the impact of the development of the orthogeriatric program on the LOS in trauma service.
Methods: Starting February 2016, the Mobile Geriatric Team (MGT) assessed each day in trauma service of UHN (42 beds) all patients over 75 years-old with a operated FNF. The MGT made a contribution to geriatric expertise (perioperatory analgesia adapted to elderly, personalized and comprehensive advices to limit geriatrics decompensations) and to short the LOS in trauma service (and thus shortening the time for hospitalization in rehabilitation care).
Results: Three hundred and ninety-one patients were been evaluated by the MGT (average age of 87). The average LOS in trauma service decreased from 9,98 to 7,01 days in 2016. This contributed to decrease orientation towards others hospitals to urgent surgery and to increase the number of elderly patients over 75 years-old operated for FNF to 40%.
Conclusion: The daily passage of MGT decreased from 3 days the average LOS in trauma service in frail patients over 75 years-old with FNF by faster transition in rehabilitation care.

P-659

Improving venous thromboembolism risk assessment and prophylaxis prescription in fracture neck of femur patients

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Introduction: In the absence of any prophylaxis, the rates of venography-assessed total and proximal Deep Vein Thrombosis (DVT) after hip fracture are 50% and 27% respectively in the 3 months after surgery. The incidence of fatal Pulmonary Embolism (PE) ranges from 1.4% to 7.5%. Best practice standards in keeping with NICE guidelines 1) All patients should undergo a Thrombosis Risk assessment (TRA) on admission to hospital2) Low Molecular Weight Heparin (LMWH) should be prescribed to all patients in whom it is indicated, according to the TRA. 3) Pharmacological venous thromboembolism (VTE) prophylaxis should be started at admission for all neck of femur (NOF) fractures. 4) Pharmacological VTE prophylaxis should be stopped 12 hours before surgery. 5) Pharmacological VTE prophylaxis should be restarted 6–12 hours after surgery.
Methods: Clinical practice was measured using a convective sampling method before and after the introduction of electronic prescribing (EP).
Results: Clinical practice showed a significant improvement after introduction of EP particularly with regards to TRA on admission, which increased from 83% to 100%. The prescription of VTE prophylaxis after surgery improved from 46% to 73%. Recommendations and actions EP has improved clinical practice in VTE risk assessment and prophylaxis prescription. However, there is room for improvement. Regular education and staff awareness programmes need to be implemented to further improve patient care.

P-660

Indications for medical review in older surgical patients: the need for geriatricians in perioperative medicine

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Introduction: The ageing demographics of European populations are well-recognised. Increasing numbers of older patients are admitted under acute general surgery. Data from national UK audits have demonstrated poorer outcomes for older surgical patients. Frailty, multi-morbidity and ageing physiology correlate with increased complications, morbidity and mortality. Perioperative geriatric liaison services can improve outcomes, but limited data have been published to describe indications for review and patient complexity. Data are required to emphasise the need for geriatri-

cians in perioperative liaison, and support the expansion of geriatric surgical liaison internationally.
Method: Indications for review were prospectively collected in patients referred to a geriatric surgical liaison service. Data were categorised according to medical diagnoses and intervention.
Results: Over nine-months, 233 inpatient liaison reviews were conducted. Interventions included: high dependency review (24%); optimisation of fluid balance (20%); treatment of cardiac complications (16%); delirium management (16%); treatment of respiratory complications (15%); discharge planning (48%); complex communication (30%). Patients required multiple interventions to aid their management (mean 2.43 interventions per patient).
Conclusions: Indications for medical review in older surgical patients are diverse. Many patients suffer numerous complications affecting multiple organ systems. Under conventional services, these patients may have required numerous specialty referrals. The geriatrician's skillset combines acute internal medicine with knowledge of the geriatric syndromes, rehabilitation and discharge planning. These data illustrate that the needs of older surgical patients cannot be met by surgeons or anaesthetists alone. Geriatricians need to expand their role in perioperative medicine to meet the needs of the ageing surgical population.

P-661
Interventions in frail elderly patients with severe aortic stenosis, possible candidates for implementation of aortic valve transcatheter (TAVI)

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Aim: To describe interventions in elderly frail patients with severe aortic stenosis.
Patients and methods: Prospective and descriptive study of patients evaluated by geriatrician for detection and intervention of frailty (to assess the possibility of TAVI indication). Demographic variables (age, sex), functional [Barthel index (BI), Lawton index (LI)], cognitive [Mini-Mental State of Examination of Folstein (MMSE)] and nutritional status [Mini-Nutritional Assessment abbreviate (MNA)] were registered. Short Physical Performance Battery (SPPB) was performed and stratified (0–3, 4–6, 7–9 and 10–12). Walking aids, levels of vitamin D (25-hydroxy) and polypharmacy review. Geriatric interventions performed: recommendations for physical exercise, request for a physical rehabilitation program, nutritional recommendations or enteral supplementation, adequacy of walking aids, polypharmacy revision and vitamin D supplementation.
Results: Forty-five patients (62.22% women); mean age: 82.62±6.09 years. Mean of the parameters evaluated: IB: 94.00±10.97; IL: 5.02± 2.08; MMSE: 26.06±3.40 y SPPB: 6.88±2.69. SPPB categorized: 0–3 points: 3 (6.67%), 4–6 points: 18 (40%), 7–9 points: 15 (33.33%); 10–12 points: 9 (20%). MNA abbreviate: 33 (73.33%) good nutrition (12–14 points), 12 (26.67%) with risk of malnutrition (8–11 points). Intervention was performed in 17 (37.78%) patients: 13 (28.89%) physical exercise recommendations, 6 (13.33%) physical rehabilitation program, 13 (28.89%) nutritional recommendations or enteral supplementation, 6 (13.33%) adequacy of walking aids, 12 (26.67%) polypharmacy reduction and 20 (44.44%) supplementation with vitamin D.
Conclusions: Evaluated patients had a well preserved functional and cognitive status, and abnormal scores in the SPPB, suggestive of frailty. Intervention was performed in one-third of the patients. The most prevalent intervention was oral vitamin D supplementation.

P-662
Is there a requirement for Geriatrician input in emergency surgical patients not undergoing surgery?

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Introduction: Older adults are commonly admitted under the care of surgeons with pathology not requiring surgery or for conservative management. We sought to evaluate the geriatric syndromes amongst this group and whether there is a role for Geriatrician input in their management.
Methods: A pilot service was provided by a Consultant Geriatrician/Specialist Registrar to older adults aged over 70 years admitted acutely to General Surgery between November 2016 - January 2017. Prospective data was obtained from direct patient assessment, medical notes and computer records. A proforma and database were completed for each patient, recording the geriatric syndromes identified and outcomes, including length of stay (LOS).
Results: 129 patients (mean age 81.5 years) total were reviewed. 35 patients required operations and 94 patients did not - within this group 13 patients had other, non-surgical procedures. Patients undergoing surgery were younger (78 years vs 83 years) and less frail (Clinical frailty score 3.3 vs 4.5). In patients not undergoing surgery, the main issues identified were new medical diagnosis (26%), falls (22.3%), malnutrition (18%) and delirium (highest incidence in those undergoing non-surgical procedures: 15.4% vs 8.6%). The average LOS was highest in the operative group (n=15 days).
Conclusions: The majority of older patients acutely admitted under the care of the surgeons do not undergo surgery. There are significant geriatric syndromes amongst this group, with patients undergoing non-operative procedures being particularly vulnerable. There is a clear role for Geriatricians in identifying issues and improving the management of these older surgical adults.

P-663
OPAL service reduces readmission and complication rates in General Surgery

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Introduction: The poor care of older patients, has been highlighted in recent publications such as the National Confidential Enquiry into patient Outcome and Death (NCEPOD). Our general surgical service has employed a Consultant Physician with an interest in the perioperative care of older people (OPAL). We aimed to evaluate the new service.
Method: We performed a review of all general surgery patients aged above 75 years who were admitted to our unit in the 6 months before (Cohort A, n=188) and 6 months after (Cohort B, n=225) the OPAL service began. Fit patients over 75 were not seen by the OPAL service routinely. Those seen were frail, had poor cognitive function, poor mobility or complex comorbidities.Primary outcomes measured were the readmission rate and the incidence of post-operative complications. Secondary outcomes measured were length of stay and patient mortality.
Results: The two cohorts were well matched. The readmission and complication rates were reduced in Cohort B (14.9% vs 7.1% and 19.1% vs 11.1% respectively, $p<0.05$). There was no difference in length of stay or mortality between the groups.
Conclusion: Regular input from a specialist OPAL physician reduces the complication and readmission rate in elective and emergency surgical patients.

P-664
Outcomes in older patients discharged from acute surgery to intermediate care

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Background: Intermediate care (IMC) is widely utilised to help older people regain independence after a hospital stay. We describe outcomes in older patients discharged from an acute surgical ward to IMC.
Methods: We identified all patients discharged to IMC from an acute surgical ward between September 2014 and September 2016 and conducted a retrospective case note audit. All patients had been assessed by our Perioperative Care of Older People Undergoing Surgery - General Surgery (Salford POPS-GS) in-reach service while a hospital inpatient.
Results: Within the study period, 29 older people with a mean age of 85.4±5.7 years were discharged to IMC. Most were females (73%). Multimorbidity (6.3±3.3 chronic illnesses), polypharmacy (7.6±3.5 medications), functional impairment (76% dependent for ADLs) and impaired mobility (only 8% mobilised with no aids or a stick) were the norm.Median length of stay in IMC was 24 days (3–67 days). While 9 patents (36%) were readmitted to hospital, there were no deaths. Continence and mobility were both shown to improve following an IMC stay. On admission, 24% of patients were incontinent and 89% were immobile or required a zimmer frame or crutches to mobilise. These figures improved to 11% and 68% respectively on discharge.30-days after discharge from IMC, 8 patients (30%) had been readmitted to hospital, while 2 patients (7%) had died. None of the cohort lived in residential care on admission, but 2 patients (7%) were discharged to a care home.
Conclusions: Functional abilities can improve in an IMC setting in older surgical patients discharged from hospital. Readmission rates are high both from IMC units and after discharge home, perhaps reflecting the frail nature of the cohort discharged there.

P-665
Perineal repair for full thickness rectal prolapse in the elderly

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Introduction: Full thickness rectal prolapse has an incidence of 1% among elderly people and is most common in females. Predisposing factors are old age, multiparity, hysterectomy, chronic dyschesia and deficiency of the pelvic floor musculature. Both abdominal and perineal procedures have been used for the repair of this condition. Although there are no evidence-based guidelines for the optimal surgical method, repair through the perineum is considered appropriate for elderly people or patients with co- morbidities due to the low risk for complications and faster recovery.
Methods: We retrospectively studied the records of 9 elderly patients with full thickness rectal prolapse who were treated with a perineal operative procedure.
Results: This case series consisted of 9 females with an average age of 76 years (range 67–98). Six patients were treated with Delorme repair and 3 with Altemeier rectosigmoidectomy combined with levatorplasty. In three patients, who were deemed unsuitable for general anaesthesia, surgery was performed under regional anaesthesia. The average hospital stay was 2 days (range 1–4). There were no perioperative complications. One patient, 6 months after a Delorme procedure, developed a partial recurrence of the rectal prolapse which was subsequently repaired with an Altemeier procedure. On follow-up, faecal continence was satisfactory in all patients.
Conclusion: Perineal procedures are safe and efficient for the treatment of full thickness rectal prolapse in the elderly.

P-666
Perioperative complications and hip fracture mortality

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Introduction: Hip fracture is an orthopaedic and medical emergency with high in hospital mortality.
Aim: To study the intra and postoperative complications in hip fracture patients who died during hospitalisation.
Methods: Retrospective analysis of the medical records of all hip fracture patients admitted in one-year period in a UK teaching hospital. Demographics, intra and postoperative complications data were collected, downloaded on excel and analysed.
Results: 527 patients were admitted in the study period and 59 died as inpatients (11.2%). 6 patient notes were not available so 53 patients were studied. 48 had an operation and 5 were treated conservatively.37/48 (77%) of patients who died had intraoperative complications; the most common was hypotension in 32/48 (67%) of patients. 32/48 (67%) had postoperative chest infection. 27/48 (56%) developed postoperative confusion. 12/48 (25%) had postoperative UTI. 11/48 (23%) had postoperative LVF. 6/48 13%) had clinical evidence of fluid overload The mean perioperative eGFR decline was 14%. 5/48 (10%) had perioperative stage 1 acute kidney injury (AKI), 2/48 (4%) had stage 2 AKI and 1/48 (2%) had stage 3 AKI. The mean perioperative haemoglobin loss was 16 gm/L (14%). 34/48 (71%) had other post operative complications17/48 (35%) had complications after being declared medically fit for discharge, most commonly chest infection 11/17 (65%)
Conclusion:
- Intra and postoperative complications are common in hip fracture patients who died during hospitalisation.
- 3/4 of patients who died had intraoperative complications.
- The postoperative complications were mainly medical. 2/3 of patients had chest infection, more than half had postoperative confusion, 1/4 had UTI, nearly a 1/4 had LVF and 1in 8 had fluid overload. 16% had acute kidney injury.
- 1/3 of patients had the complications after being medically fit for discharge.

P-667
Postoperative haematoma on RIVAROXABAN: 2 case reports

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The use of Non-vitamin K antagonist oral anticoagulants (NOACs) is increasing rapidly and is now recommended in preference to vitamine K antagonist (VKA) in atrial fibrillation. The prevalence of geriatric traumatology is increasing and perioperative period is associated with a higher bleeding risk. We report two cases reported to pharmacovigilance. Case 1: Mr C, 85 years old, hospitalized for an loosening of the left Cotyloidal implant, on RIVAROXABAN (Atrial fibrillation, clearence 92ml/min). Bridging using LMWH and surgery on day 2. RIVAROXABAN reinitiated without bridging on day 5 after surgery. Onset of a large postoperative haematoma progressively getting worse with anemia (decreased hemoglobin from 124 to 98g/L) Case 2 Ms D, 89 years old, hospitalized for a left THA periprosthectic fracture, on RIVAROXABAN (Atrial fibrillation, clearence 35ml/min with adapted posology). Bridging with CALCIPARINE (not overdosed) and surgery on day 8. RIVAROXABAN reinitiated without bridging on day 5 after surgery. Onset of a large postoperative haematoma progressively getting worse with anemia

(decreased hemoglobin from 106 to 89g/L) secondarily superinfected with a need of surgical debridement. A retrostrospective study has found a small but significative increased risk of bleeding following the procedure with RIVAROXABAN in comparaison to VKA. Perioperative Guidelines exist for the management of NOACs in scheduled surgery or for emergency invasive procedures. Actually, there is no recommendation for post operative re-processing. Based on our elderly clinical experience, frailed or dependent, we wonder on this theme as far as this population has a higher thrombosis risk. Haemorrhagic complications has to be reduced without increasing thromboembolic events. When NOACs should be reinitiated and may bridging be considered? Declaration to pharmacovigilance department is needed to optimize the use of NOACs in real life.Few recommendations for the invasive non-programmed procedures exist and they are based on expert opinion. Guidelines should be clarified with prospective studies. Caution is needed for the perioperative management of NOACs especially in geriatric traumatology.

P-668

Post-operative hypoxemia and in-hospital complications of geriatric patients admitted in Unit of Peri-Operative Geriatric care after hip fracture surgery

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Introduction: Delirium is a common complication following hip fracture surgery (HFS) in older people. Postoperative hypoxia has also been associated with delirium, but not specifically in geriatric patients. We tested the hypothesis that post-operative hypoxia is associated with in-hospital complications in patients with HFS.
Methods: Patients hospitalized in orthogeriatric unit after HFS were monitored for SpO2 with a pulse oximeter continuously up to 16h, covering one night. In-hospital complications were recorded in all patients.
Results: 46 patients with a mean age of 86±6 years old, and a mean oxymetry recording of 850,6±669 min (14hrs) were included in the analysis. Twenty-six patients presented a severe post-operative hypoxemia (time spent with SpO2<90% more than 20%) and 20 patients not (mean SpO2 at 88,3±7,0% vs 93,9±2,3% respectively; p<0.001). There was no significant difference between groups for age, gender, comorbidity (CIRS 52), physical status score (ASA), dementia, alcoholism, denutrition, depression, dehydratation, medication use (e.g benzodiazepine/hypnotics/morphine), average length of stay, mean oxymetry recording time. Hypoxemic patients significantly suffered more COPD (19% vs 0%; p=0,038), and were taking more diuretics and IEC/sartan medication. Among in-hospital complications, delirium was more present in hypoxemic patients (46% vs 15%; p=0,025), but falls, swallowing difficulty, aspiration pneumonia, infections, heart failure, cardiac ischemia, anemia and transfusions were not significantly different.
Conclusion: Preliminary data showed that post-operative hypoxia is associated with delirium in older patients in orthogeriatric unit after HFS. Further inclusions are ongoing and a clinical trial testing the benefit of oxygen therapy in preventing delirium is in perspective.

P-669

Predicting in-hospital mortality in older surgical patients: a prospective cohort study of non-elective admissions

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Objectives: Patients admitted as emergencies account for 80% of all in-hospital surgical mortality. Half of patients undergoing emergency general surgical procedures are old. We examine risk factors predicting in hospital mortality in older acute surgical patients.
Methods: All general surgical patients aged 75 years or older admitted non-electively between 9th September 2014 and 28th February 2017. The primary outcome measure was in-patient mortality. Univariate and Multivariate logistic regression analyses were undertaken to identify factors predicting in-hospital mortality.
Results: 577 patients were included in the study, mean age 82.9±5.7 years (56.2% female). The majority were living at home or with carers (92.9%) at the time of admission although 21.4% of patients were dependent for basic activities of daily living (ADLs). 76.6% of patients were managed non-operatively. Female sex (p<0.031), nursing home residence (p<0.001), dependence ADLs (p<0.001), cognitive impairment (p<0.001), restricted mobility (p 0.001) and urinary incontinence (p<0.001) were predictors of in-hospital mortality. Multivariate analysis: ASA class III-IV (OR 6.54 CI 1.50–28.47), dependence for basic ADLs (OR 2.63 CI 1.25–5.52), heart failure (OR 2.57 CI 1.19–5.54), and cognitive impairment (OR 2.54 CI 1.02–5.01).Type of treatment intervention, number of medications and number of co-morbidities were not predictive of in-hospital mortality (p>0.05).
Conclusions: This study highlights the predictive role of functional status, dependence and cognitive impairment when risk assessing older surgical patients presenting with acute surgical conditions. Accurate risk stratification requires global assessment by teams experienced in care of the older patient rather than the traditional focus on comorbidities.

P-670

Prediction of postoperative mortality in elderly patients with hip fracture: are specific and geriatric scores better than general scores?

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Background: Elderly patients with hip fracture are at high risk of mortality. An accurate prediction of postoperative mortality is important for communicating information, in guiding decision-making, and management. We tested the hypothesis that specific or geriatric scores predict postoperative mortality better than general scores in this frail population.
Methods: Consecutive elderly patients (>75 years) admitted to our dedicated geriatric post-operative unit after hip fracture surgery were included and followed up over 6 month. The following scores were calculated: the American Society of Anesthesiology (ASA) score, PreOperative Score to predict PostOperative Mortality (POSPOM) score, Cumulative Illness Rating Scale (CIRS), Charlson score, and Nottingham Hip Fracture Score (NHFS).
Results: 508 patients were included (age 86±7 years). The 30-day and 6-month mortality rates were 4.1% (95% confidence interval (CI): 2.7–6.3%) and 14.4% (95% CI: 11.6–17.8%), respectively. For 6-month mortality, the area under the receiver operating curve (ROCAUC) was not significantly different between scores. The predictive characteristics of these scores were relatively poor as shown by the highest recorded values of ROCAUC (0.67 for CIRS) and positive likelihood ratio (2.06 for POSPOM) and high proportions of patients identified as intermediate risk ranging from 37.4% for CIRS to 77.5% for Charlson score. Similar results were obtained when considering 30-day mortality.
Conclusion: In elderly patients with hip fracture, specific and geriatric scores are not better than general scores in predicting 6-month mortality. All these scores performed poorly, suggesting that preoperative characteristics may not be crucial in identifying mortality risks in this frail population.

P-671
Preoperative identification of frail elderly with hip fractures: Which patients need postoperative intensive care monitoring?

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Introduction: Recent guidelines advise intensive postoperative monitoring of frail elderly patients after hip fracture surgery. In our hospital, all patients aged ≥70 years with hip fractures are screened for frailty at the emergency department, to decide on postoperative admission to the Intensive Care Unit (ICU). In some patients though, there is no need for intensive monitoring. Therefore, it is important to establish critical factors for admittance. The objective of this study was to identify preoperative patient specific characteristics, which can predict clinically necessary ICU admission following hip fracture surgery in patients aged ≥70 years.
Methods: We retrospectively collected data of all patients aged ≥70 years with hip fractures who underwent surgery followed by ICU monitoring in the Westfriesgasthuis hospital in 2015 and 2016. Patient characteristics were related to necessary ICU admission. This was defined as one or more of the following: administration of vasopressors, >6L oxygen/min, any form of rate control for heart rates <40 or >150 bpm, ≥4L IV crystalloid infusion within 24h and/or >4 units of blood within 24h.
Results: 186 patients were included in this study. Overall, 47.8% of all ICU admissions were categorised as necessary. Preoperative characteristics significantly associated with an increased risk of necessary ICU admission were cardiac disease (odds ratio (OR) 2.30; 95% confidence interval (CI) 1.03–5.15; p=0.04) and age (OR 1.11; CI 1.04–1.19; p<0.01).
Conclusions: Higher age and the presence of any form of cardiac disease predict a higher chance of necessary ICU monitoring in elderly patients after hip fracture surgery.

P-672
Pressure ulcers are associated with six month mortality in elderly patients with hip fracture managed in orthogeriatric care pathway

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Pressure ulcers (PU) in hip fracture are associated with poor outcomes. Orthogeriatric management reduces PU incidence in hip fracture in the elderly. However, remaining factors and prognostic associated with PU in hip fracture patients managed in orthogeriatric care pathway are unknown. The objectives were to determine the prognostic of PU in the hip fracture in UPOG, and their associated factor. From June 2009 to April 2015, all consecutive patients, >70 years old, with hip fracture admitted to an Unit for Post-Operative Geriatric Care (UPOG) were screened. Patients were included if they were hospitalized for hip fracture and were excluded in presence of pathological fracture or if they were already hospitalized at the time of the fracture. In our unit, orthogeriatric principles are implemented, including a multicomponent intervention to improve PU prevention and management. Patients were followed until 6 months after discharge. 567 patients were included, with an overall 14,4% 6-month mortality (95% CI: 11.6–17.8%). Of these, 67 patients (12%) experienced at least one PU. Despite orthogeriatric management, PUs were significantly associated with a low albumin level (RR 0.90, 95% CI:0.84–0.96; p=0.003) and history of atrial fibrillation (RR 1.91, 95% CI:1.05–3.46, p=0.033), coronary artery disease (RR 2.16, 95% CI:1.17–3.99; p=0.014) and diabetes (RR 2.33, 95% CI:1.14–4.75; p=0.02). PU was associated with 6 month mortality (RR 2.38, 95% CI: 1.31–4.32, p=0.044). In elderly patients with hip fracture managed in an orthogeriatric care pathway, PU remained associated with poorly modifiable risk factors and long term mortality.

P-673
Procalcitonin and C-reactive protein for diagnosing sepsis in elderly patients after orthopedic surgery

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Introduction: In the field of surgery in elderly patients, biomarkers may be of interest for diagnosis of infection, but data are scarce. We aimed to analyze the diagnostic performance of infection of procalcitonin (PCT) compared to C-reactive protein (CRP) in orthopedic surgery for elderly patients.
Methods: From July 2009 to July 2013, all patients admitted to our perioperative geriatric unit after trauma surgery were included in the study. Patients were excluded in presence of preoperative infection or antibiotics distribution, or if PCT was not measured. Clinical and biological data were prospectively collected. Medical charts were reviewed by 3 experts to assess bacterial sepsis diagnosis. Areas under the curve (AUC) and 90%-specificity thresholds were analyzed for PCT and CRP crude levels and their relative variations.
Results: Two hundred twenty-nine out of 527 patients were retained for the analysis (median (IQR) age 86 (81–90) y/o, CIRS 9 (7–12), ADL 5.5 (3.5–6.0), hip fracture 75%), of which 40 had bacterial infection (23 pneumopathy, 8 urinary tract infection, median delay 2 days after admission). For bacterial infection diagnosis, AUCs were 0.64 95% CI [0.57–0.70] for PCT crude levels, 0.65 [0.59–0.71] for PCT relative variations, 0.68 [0.61–0.74] for CRP crude levels, and 0.70 [0.64–0.76] for CRP relative variations. Ninety percent specificity thresholds were 0.75µ g/L for PCT crude levels, +62% for PCT variations, 222mg/L for CRP crude levels, and +111% for CRP variations.
Conclusions: Diagnostic values of PCT and CRP were low after trauma surgery in elderly patients. Relative variations of these biomarkers may be more informative than crude levels.

P-674
Prognosis of trauma elderly patients with hip fracture vs multiple fractures or polytrauma in a dedicated geriatric care pathway

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Introduction: Prognosis of trauma elderly patients is due to severity of initial lesions, but the weight of multimorbidity, as reported in patients with hip fracture (HF), is less known. We aimed to compare phenotypes of morbidities and outcomes of elderly patients admitted with HF vs multiple fractures or polytrauma (MFP) managed in a dedicated care pathway.
Methods: Monocentric retrospective study of data prospectively collected between 2009 and 2014. Inclusion of consecutive patients >75 y/o, admitted in unit of perioperative geriatric (UPOG) care with HF or MFP. Data included comorbidities, Injury Severity Score score (ISS), trauma mechanism, complications, and 6-month follow-up for death, walk recovery or new institutionalization. The primary endpoint was 6-month mortality.
Results: 606 patients were included (age 86±6 y/o, CIRS 9 [6–12], ADL 5.5 [3.5–6], home living 75%), 522 with HF and 54 with MFP. HF patients were older (86±6 vs 84±5 y/o, p=0.001), had more comorbid conditions (CIRS 9 [6–12] vs. 7 [4–10], p=0.004) and dementia (40 vs 11%, p<0.001). ISS score was higher in MFP patients (9 [9–9] vs 9 [8–17], p<0.001). After 6-months, there was no difference for mortality between HF and MFP patients (respectively 16 vs 8%, p=0.15), but walking recovery was more frequent in HF patients (53% vs. 37%, p=0.03) and admission to new institution was less frequent (4% vs. 15%, p=0.03).
Conclusion: The weight of comorbid conditions could counteract the initial severity of lesions in elderly patients with trauma.

P-675
Prognostic value of fragmented QRS in elderly patients with hip fracture in a dedicated geriatric care pathway

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Introduction: Fragmented QRS (fQRS) are due to terminal conduction delay after myocardial infarction, and are associated with coronary artery disease in younger patients. We aimed to describe electrocardiograms (ECG) before and after hip fracture surgery in elderly patients and to evaluate prognostic value of fQRS during hospitalization.
Patients and methods: Monocentric retrospective study, all consecutive patients >75 years with a hip fracture were enrolled. Clinical, ECG, biological data and outcomes were prospectively collected. Presence of fQRS was determined before surgery, and repeated ECG were analysed. Each 12-lead ECG was analysed by 3 independent readers. The primary end point was a composite criteria defined as in-hospital cardiovascular complication (arrhythmia, heart failure, acute coronary syndrome, troponin elevation).
Results: A total of 185 patients were enrolled. Before surgery, 91% of the patient were in sinus rhythm and 8% had atrial fibrillation. Twenty nine percent of the patients had a fQRS and 15% a J wave. During their stay in the geriatric post operative unit, cardiac and arrhytmics event occurred in 56% of the patients: 28% presented supraventricular extra-systoles, 21% ventricular extra-systoles, 11% paroxystic atrial fibrillation. Acute coronary syndrome (with and without ST-elevation) were observed in 7% of the patient. New

fQRS appeared in 9% of the patient. Pre-operative fQRS were not associated with any postoperative cardiovascular outcome whereas pre-operative Q wave was associated ACS (regression coefficient 0.31, p=0.04)
Conclusion: fQRS are a frequent pattern in elderly's ECG, but are not associated with in-hospital cardiovascular outcome after hip surgery.

P-676
Quality improvement project – Is there a need for an inpatient falls management pathway?

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Introduction: Patients who present to hospital via the emergency services with a NOF fracture have an integrated care pathway which outlines quality standards. There is no pathway for patients who sustain these fractures as an inpatient. We identified patients who sustained a NOF as an inpatient and compared their pathway to those presenting to A&E with a suspected NOF.
Methods: We included all NOFs in the trust (Heart of England Foundation Trust) sustained as an inpatient in 2016 (1st January-31st December). We reviewed the time taken for doctor to review, time to analgesia, time to x-ray, time to theatre, time to Ortho-geriatric review and 30 day mortality. Data was collected from electronic records and case notes.
Results: 13 patients sustained a NOF fracture as an inpatient in the past 12 months. 38% were reviewed within 1 hour of the fall. No patients received analgesia within 30 minutes, and no patients had an x-ray within 1 hour, 11/13 patients were managed surgically. Mortality at 30 days was 30% compared with 7% for outpatient NOFs.
Conclusion: A separate pathway for patients who sustain NOFs as inpatients is required, to identify those with serious injury, ensure prompt analgesia, x-ray and a quicker transit to theatre. Mortality rates for inpatient NOF's are higher as the patients have more medical problems and are often unwell at the time of falling.

P-677
Simplified comprehensive geriatric assessment in older surgical patients admitted to General Surgery. Salford POPS-GS

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Objectives: Half of patients undergoing emergency general surgical admission are old. We examined variations in housing, mobility, cognition, functional status, continence and medications on admission compared to discharge, and between different treatment groups.
Methods: All general surgical patients aged 75 years or older admitted non-electively between 9th September 2014 and 28th February 2017 and reviewed by our in-reach service.
Results: 577 patients were included in the study, mean age 82.9±5.7 years, 56.2% female. 23.4% (135) underwent surgery, 17% (102) non-surgical procedure and 58.9% (340) medical management. The majority were living at home or with carers (92.9%) at the time of admission although 21.4% of patients were dependent for basic activities of daily living (ADLs). Patients managed medically presented more cognitive impairment (21.5% vs 16.7% vs 13.3% - p 0.034), were more dependent for basic (26.3% vs 16.7% vs 12.6% – p 0.002) and instrumental ADLs (51.2% vs 52% vs 43.6% – p 0.001), less mobile (69.7% vs 65.5% vs 81.7% p 0.043) and took more medications (8.7 vs 8.6 vs 7.4 – p 0.012). There were no other significant differences. Admission vs discharge more patients were independent for basic ADLs (73.7%–83.3%–87.4% vs 73.3%–84%–77.6% $p<0.001$), less mobile (65.5%–72.5%–75.6% vs 63.3%–70%–68.3% $p<0.001$) and took fewer medications (8.7–8.6–7.4 vs 8.1–8.2–7 $p<0.001$). There were no other significant differences.
Conclusions: Patients undergoing surgical interventions and procedures were more independent, mobile and took fewer medications compared to those managed medically. Patients became less mobile and more dependent after hospitalisation in the medical and surgical intervention groups but not those undergoing procedures.

P-678
The first 7 months of an Orthogeriatric Unit in a general hospital – a new model of care towards outcome improvement?

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Introduction: Hip fracture (HF) frequently occurs in elderly, due to high risk of falls and osteoporosis. Multimorbidity and geriatric syndromes result in high vulnerability to perioperative complications, which can increase perioperative morbimortality, impair gait rehabilitation and decrease quality of life. Several evidence has been published showing that co-management by orthopedics and medical specialties, performing routine medical assessment based on comprehensive geriatric assessment, can improve patients outcomes. Our goal is to analyse the first 7 months of a new Orthogeriatric unit that was opened grounded on potential benefit of this model of care.
Methods: Retrospective study of elderly admitted in an Orthogeriatric Unit due to HF (also including fractures associated to prosthesis) between June and December 2016 through hospital record analysis.
Results: 134 patients admitted, only 11 were not assessed by the geriatric team. Average age 83.87 years, 78.4% females, 42% widowed, 31% married, 79% living at home. Average baseline Barthel score 80.3, normal gait in 55%, average Cumulative Illness Rating Scale Geriatrics 7.45, cognitive impairment in 29%, 96% were admitted from the emergency department. Most frequent types of fractures were: intracapsular (n=71), intertrocantheric (n=38) and subtrocantheric (n=13). Surgical intervention was performed in average 4.2 days after admission, average length of stay (LOS) was 16.7 days and 10 patients died. Most frequent perioperative complications were: pain (87%), anemia (82%), delirium (34%).
Conclusions: There is a trend to improvement of LOS and time to surgery, comparing to the previous 17 months of standard care (LOS 19.6 days, 5.4 days).

P-679
What do Greek students and professionals know about the time a person with dementia is in need of palliative care?

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Introduction: There is scarce research about the beliefs of university students and professionals in the social, medical and other science fields in Greece regarding the need of the elders with a diagnosis of dementia for palliative care. The objective of this study is to explore when students and professionals living and working in Greece, consider a person with dementia in need of palliative care.
Methods: A questionnaire based on an existing case-vignette by van Riet Paap et al. (2015) was used. One hundred seventy-five participants from Greece (147 women; 158 not having a relative diagnosed with dementia; 29 student nurses, 34 professional

nurses, 52 psychology students, 22 professional psychologists, and 38 students of non-relevant sciences; M age = 27.72, SD age = 9.61; and for the 55 professionals M years of professional working experience = 11.76, SD years of professional working experience = 6.50) participated voluntarily in this study.
Results: Open responses to the "when" question revealed six categories: after her diagnosis/after the first symptoms; when she and her family cannot cope; at the advance of symptoms; all the time; when she behaves aggressively; I am not sure/there is no specific point. Professional status, age, and field of studies were not found to be significant predictors, and thus did not contribute to the participants' answers regarding the start of palliative care.
Conclusions: Professional-student status and relevancy of subject do not predict opinions of Greek participants for the proposed time point of considering a person with dementia in need of palliative care.

Area: Psychiatric symptoms and illnesses

P-680
Antipsychotics use in the elderly and users' risk profiles: baseline characteristics of a German claims-based cohort

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Background: Antipsychotics are indicated for the treatment of psychotic disturbances. In the elderly they are frequently used in other indications, such as neuropsychiatric symptoms of dementia. However, balancing risks and benefits in these patients is challenging. Safety profiles of individual antipsychotics need to be considered in combination with the patients' risk profiles. However, patient populations have hardly been described before.
Objective: This study aims to describe patient characteristics, comorbidities and concomitant medications as well as preexisting conditions associated with adverse outcomes in elderly new users of antipsychotics.
Methods: Cohort study including patients aged ≥65 years with a first prescription for antipsychotics during 2005–2014, based on claims data of the German Pharmaco-epidemiological Research Database (GePaRD).
Results: 415,948 patients were included, 70.3% women, median age 80 years (interquartile range (IQR): 73–85). Treatment was most frequently started with Melperone (29.3%), Risperidone (13.4%) and Sulpiride (11.3%), in 3.6% of patients with >1 antipsychotic. Before starting treatment patients took a median of 8 (IQR: 5–11) different medications, 62.7% had Charlson Comorbidity index >2. 37.3% of patients had a diagnosis of dementia, and 85.3% a diagnosis related to pain. 58.3% of patients had a history of cardiovascular and 45.0% of cerebrovascular disease.
Conclusions: In this cohort of elderly antipsychotics users, polypharmacy, risk factors for adverse outcomes and comorbidities, especially dementia, were common at baseline. Risks and benefits of an antipsychotics treatment have to be carefully weighed in this population.

P-681
Can we prevent the risk of escaping of old residents? The need for a specific tool

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Introduction: Residents' escape episodes or elopement occur even if most of the nursing homes (NH) have set up specific devices to prevent from this risk. Escaping is associated to a high burden of the caregivers and is often underreported. Currently there is a lack of a clear definition of escaping often included in other behavioral symptoms of dementia (BPSD) such as wandering, motor disturbance or agitation. Aim: describe the characteristics of escapers.
Method: Exploratory retrospective descriptive study. Population: NH residents with an escape episode reported to local authority between 2008 and 2009. Assessment: semi guided interview by an independent healthworker with the medical and nursing staffs.
Results: 9 NH volunteered to participate with 42 elopement records analyzed. Mean age was 78.7 years old (56–96); 63% over 80 y.o.; 60% males; 54% of the residents had severe disability. Most but not all of the them had dementia (23/42); 58% had previously experienced a similar episode; BPSD were often reported out of which 2 cases of apathy. Environmental factors were also reported such as recent admission to the NH (<6 months: 69%); living in a single room (54%), family visits (77%) particularly when more than twice a week (44%); 34% resided in a specific Alzheimer Unit.
Conclusion: A specific tool to assess the risk of escaping would emphasize patient centered-care and help to develop personalized devices. After reaching a pluridisciplinary consensual definition, such a tool has been developed and its validation is ongoing with the ESCAPE Study.

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Elderly diabetic patients: influence of anxiety and depression on adherence to medication

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Introduction: The prevalence of diabetes is growing worldwide, particularly in the elderly [1]. In diabetic patients, anxiety and depression are highly prevalent, which plays a negative role in medication adherence, as well as in metabolic control [2,3]. This study aims to analyze the association in elderly diabetic patients between symptoms of anxiety/depression and medication adherence.
Methods: This cross-sectional study was carried out in an outpatient department of Internal Medicine Service (CHSJ-Porto), with elderly patients (≥65 years) that had been diagnosed with diabetes. Patients were excluded if they were unable to communicate. Symptoms of anxiety/depression were assessed with the Hospital Anxiety and Depression Scale/HADS. Medication adherence was treated as a categorical variable (non-adherent, partially adherent, adherent).
Results: Overall 94 patients were included, mostly female (53.2%), married (63.8%) and with a mean age of 75.2 (sd=6.7) and mean education of 3.3 years (sd=2.0). Patients had on average 5.9 (sd=1.7) comorbidities and took 8.8 (sd=2.3) medications daily. In this sample, 30% of patients were non- or partially adherent. Based on HADS, 16.1% of patients presented depression and 25.8% anxiety. Significant differences between the three groups were found in anxiety and depression scores, both being higher among the non-adherent patient group, compared to the adherent and to the partially adherent groups (anxiety: median = 8 vs. 6,4, respectively, H=8.860, p=0.012; depression: median = 6 vs. 3,2, respectively, H=6.043, p=0.049).
Conclusions: The present findings of this association between symptoms of anxiety/depression and medication adherence, cor-

roborate those from previous studies. This research points to the importance of early identification and adequate treatment in order to enhance medication adherence.

References:

[1] Centers for Disease Control and Prevention. National Diabetes Fact Sheet: General Information and National Estimates on Diabetes in the United States, 2011. Atlanta, Georgia, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2011

[2] Nouwen A, Winkley K, Twisk J, Lloyd CE, Peyrot M, Ismail K, Pouwer F. European Depression in Diabetes (EDID) Research Consortium Type 2 diabetes mellitus as a risk factor for the onset of depression: a systematic review and meta-analysis. Diabetologia 2010;53:2480–2486.

[3] Capoccia K, Odegard PS, Letassy N. Medication adherence with diabetes medication: a systematic review of the literature. The Diabetes Educator 2016;42(1):34–71.

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Elderly patients with syncope or falls showed high prevalence of psychiatric symptoms

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Introduction: The prevalence of psychiatric symptoms has hardly been investigated in elderly patients with syncope. The aim of this study is to investigate the prevalence of psychiatric symptoms in patients 65 years or older with syncope in comparison with older patients with falls.

Methods: This observational cohort study included patients aged 65 years or older with at least one syncope or unexplained fall and who were evaluated at the fall and syncope day clinic. Primary outcomes were the prevalence of depressive and anxiety symptoms that were reported in the medical history. The secondary outcome was the use of psychotropic medication, Geriatric Depression Scale, and Patient Health Questionnaire.

Results: 378 patients were included with a mean age of 79.7±6.5 (SD) years; 194 patients with syncope and 184 patients with falls. Patients with syncope had more depressive symptoms than fall patients (33% vs. 23%, P=0.05). Sadness occurred significantly more often in the syncope group (P=0.05). No other significant differences were observed between syncope and fall groups. Anxiety symptoms were common in both syncope and fall group (20% vs. 19%, P=0.79). Also, we found a high prevalence of benzodiazepine use (22% vs. 16%, P=0.15) and antidepressants use (17% vs. 15%, P=0.63) in both syncope and fall groups.

Conclusions: Elderly patients with syncope or unexplained falls often have psychiatric symptoms and frequently use psychotropic medication. Elderly patients with syncope experience more depressive symptoms than elderly patients with falls. Therefore, elderly patients with syncope should also be evaluated for psychiatric symptoms.

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Fear of falling, functional activity, and psychotropic medications in elderly patients with syncope or falls

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Introduction: Fear of falling (FOF) is common in elderly patients with syncope or falls. The aim of this study is to investigate which factors are associated with FOF.

Methods: We evaluated FOF in patients aged ≥65 years, who experienced at least one syncope or fall. Main outcomes were the use of psychotropic medication, functional activity, and the prevalence of psychiatric symptoms.

Results: 378 patients were included with a mean age of 79.7 (SD 6.5) years; 256 patients with FOF and 122 patients without FOF (non-FOF). The prevalence of FOF was 68% in patients with syncope and 67% in patients with falls (P=0.89). Compared with non-FOF patients, patients with FOF used more antidepressants (P=0.03) and benzodiazepines (P=0.00). FOF patients scored worse than non-FOF patients on the handgrip strength test (19.3±8.4 vs. 22.6±10.2, P=0.01), as a measure of functional activity. FOF was associated with more depressive symptoms (P=0.01) compared with non-FOF. The multivariate analysis showed no independent risk factor for FOF.

Conclusions: Two-third of elderly patients with syncope or falls have FOF, which seems to be associated with high use of antidepressants and benzodiazepines, decline in functional activity, and more depressive symptoms compared with non-FOF patients. However, none of these variables were an independent risk factor for FOF. Physicians taking care of older patients with syncope or falls should be aware of the high prevalence of FOF, with the associated functional decline, depressive symptoms, and high use of psychotropic medications.

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Frailty evaluation in aging adults with autism spectrum disorder and intellectual disability (EFAAR study)

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Few data are available about aging with autism spectrum disorders (ASD). Nevertheless a premature frailty is suspected. In general population, two models are used for frailty screening: the Fried's phenotypic model and the Rockwood's cumulative model. This later allows to calculating the frailty index (FI), which depends only on age. The principal aim of our monocentric and prospective study is to determine if FI is age-dependent in over age 20 and living in medico-social institutions of Languedoc-Roussillon adults with ADS and intellectual disability (ASD-ID). Secondary objectives are to evaluate the frailty prevalence and to verify the FI validity for fall, hospitalisation and death prediction in this population. At the time of enrolment, FI is calculated from 103 clinic and biological variables. In addition, ASD severity, adaptive and intellectual functioning, somatic and psychiatric comorbidities, and treatments are evaluated. The fall, hospitalisation and death occurrence is then collected each year during 5 years. Here we present preliminary results. To date, 23 patients aged from 21 to 62 years are included. The FI depends significantly on the age and ASD severity interaction. No frail patient is detected by the Fried's model, when 21.7% are defined frail with the Rockwood's model. As described in people with ID, the synergy of age and disease severity seems to influence the ASD-ID patient frailty. These results need to be confirmed in a bigger cohort. By follow-up our patients during 5 years, we hope to propose at term a new frailty phenotypic model adapted to people with ASD-ID.

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Management of residual symptoms and psychotropic medication side-effects among older or soon-to-be-old adults with chronic mental illness

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Background: Individuals with persistent mental illness are not spared from the issue of aging. However there have been few studies which focus on the aging experience of this group of individuals, particularly the issues of residual symptoms and medication side-effects as these individuals age. Therefore it is the purpose of this presentation to explore these issues through qualitative study that targets this specific population group.
Methods: 61 individuals, aged 41 to 75 with chronic mental illness, were recruited from different mental health programs to participate in qualitative interviews. Interviews were audio-taped and transcribed. Narratives generated were subsequently examined using thematic analysis. Qualitative data from participants of the 3 age groups namely: mid-age (40–49); soon-to-be-old (50–59); and older adults ($\geq$60) were compared with respect to their experience of residual symptoms and side-effects of psychotropic medications.
Results: Of the 61 interviewed, 31 were males, majority suffered from schizophrenia or other psychotic disorders (n=46). Residual symptoms common to all groups were rumination, anxiety, sleep problem and delusional ideations. Medication side-effects shared among the 3 groups included fatigue, drowsiness, weight gain and extra-pyramidal symptoms and appeared to be better tolerated in the older-adult group. The residual symptoms and medication side-effects tended to exacerbate the chronic physical conditions or arouse related apprehension in the oldest group, while their impact on the younger groups was often manifested as interference with the engagement in exercise, social, educational and wage-making activities.
Conclusion: Successful aging strategies should encompass the variation in residual symptoms and medication side-effects experienced during aging.

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Prevalence of depressive symptoms in elderly people in Manisa, Turkey

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Objectives: The aim of this study is to determine the prevalence of depressive symptoms in elderly population in Manisa and evaluate the potential risk factors.
Methods: The population of this cross-sectional study was 17760 elderly individuals who were living at the region of community health center in March-April 2017. The sample size was calculated using the software of Epi info 7.0; thereby, 546 geriatric individuals were enrolled. Each individual was randomly selected from his/her registration at the administrative office of Manisa Public Health Directory. All data were collected by face-to-face interview. A standardized questionnaire form, that is involved sociodemographic characteristics, Katz index and, Depression scale for geriatrics, was used. The rate of participation was 97.8% (n=534). The study activities were approved by the Celal Bayar University Institutional Review Board. All data was evaluated using descriptive analysis and chi square test. Logistic regression was used for multivariate analysis.
Results: The mean age of the study group was 72.70±6.35. The majority of individuals (78.6%) had a chronic disease which continuous drug administration was required, 56.3% was women, 44.3% was graduated from elementary school and 19.6% was living alone. The prevalence of depressive symptoms was 32.8%
Conclusion: Multivariate analysis demonstrated that the risk of depression is significantly high in individuals who were living alone, need of support during daily activities, said that they perceived their health worse according to previous year, abused in the past year, insufficient income and past psychiatric illness history.

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Seven-year outcome of depression in elderly high-altitude residents in Ladakh, India

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Background: Studies have reported a positive association between suicide rate and altitude, suggesting a relationship between hypoxia and depression. Previously we reported that the prevalence of depression in high-altitude residents in Ladakh was low. This study aimed to analyze the clinical course of residents diagnosed with depression in a clinical interview during our previous health checkup in Ladakh.
Methods: The participants were two residents diagnosed with depression during our health checkup of 114 residents in Domkhar, Ladakh in 2009. Their 7-year outcome was analyzed through home visits. The interview was conducted in English with a local interpreter. The Religious Commitment Inventory-10 was used as an index of religious devotion. The Multidimensional Scale of Perceived Social Support was used as an index of social support and level of well-being was assessed using visual analog scale.
Results: The two residents diagnosed with depression achieved spontaneous remission without treatment. The interviews focused on religious devotion and social support. Both residents had strong religious devotion and were satisfied with their relationship with other residents. With regard to subjective quality of life, both residents were highly satisfied with the relationship they had with their family and friends. They reported that praying, listening to a priest's lecture, and visiting a religious facility made them feel better.
Conclusion: The results suggest that deep religious devotion and social support are helpful in defending against development of depression. One limitation of this study is that only two residents were included; thus, quantitative studies are required to clarify this issue.

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The association between apathy and decline of physical functioning in depressed and non-depressed older persons during 2-years of follow-up

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Background: In older persons, both apathy and depression (which frequently co-occurs with apathy) have been associated with poor physical functioning, a major health concern. We investigated the association between apathy and physical functioning in older persons without manifest dementia and whether this association is modified by depression.
Methods: We used data of 380 older persons (with and without depression) participating the Netherlands Study of Depression in Older Persons, with baseline-scores on the Apathy Scale and baseline- and 2-year follow-up-scores on at least one measure of physical functioning, including International Physical Activities Questionnaire (IPAQ, self-reported), WHO-Disability Assessment Schedule (WHO-DASII mobility-subset, self-reported), walking-speed or handgrip-strength. Multivariable linear regression analyses were performed to examine the association between apathy at baseline

and physical functioning at 2-year follow-up. We also investigated effect-modification by sex, age, and depression.
Results: Cross-sectionally, persons with higher baseline Apathy Scale-scores performed significantly worse on all measures of physical functioning. Longitudinally, higher baseline Apathy Scale-scores were associated with higher delta-scores on the IPAQ (B=−59.81) in the basic model, and higher delta-scores on the WHO-DASII (B=0.09) in all models. Apathy was not associated with higher delta-scores for walking speed or handgrip strength. Furthermore, sex, age, and depression did not modify any association.
Conclusion: In a Dutch cohort of older persons without manifest dementia, apathy was associated with more decline in self-reported, but not in objective physical functioning. Sex, age, and depression did not modify these associations. Maybe, in older persons with apathy, subjective decline precedes decline in physical performance tests.

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The association between apathy and recurrent falling in a Dutch cohort of older individuals visiting a fall clinic

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Background: Apathy, a common and disabling behavioral syndrome in older individuals, has been associated with impaired physical performance and executive dysfunction. They share a pathophysiological pathway and the latter are both risk-factors for falling. This cross-sectional study examines the association between apathy and fallrisk in a cohort of 243 Dutch outpatients aged ≥65 years visiting a fall-clinic after a fall.
Methods: Information on the number of falls and recurrent falling was derived from the CAREFALL Triage Instrument. Multivariable regression and negative binomial regression analyses were used to assess Odds Ratio's (ORs) and Incidence Rate Ratio's (IRRs) and their 95% Confidential Intervals (CI95) for the association between apathy and recurrent falling (≥2 falls in the past 12 months) and number of falls respectively.
Results: Apathy was independently associated with recurrent falling in patients aged 65–75 years: OR 2.8 (CI95 1.1–7.4). The number of falls in the past 12 months was 46% higher in patients with apathy than in patients without apathy after adjustment for confounders (IRR 1.46 (CI95 1.0–2.1)).
Conclusion: In a Dutch population of older outpatients visiting a fall-clinic, apathy was associated with recurrent falling in patients aged 65–75 years and the number of falls. Hypothetically, apathy is especially relevant in relation to falling in the "youngest old" and maybe potential interventions modifying apathy should be targeted at this age group. Further research is necessary to elucidate the diagnostic accuracy of apathy as a risk-factor for recurrent falling and its potential role in fall-prevention strategies.

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The associations between depressive state and well-being in elderly women

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Objective: The aim of study was to investigate the associations between depressive state and well-being in elderly women.
Subjects and methods: The cross-sectional study was performed on Lithuanian community dwelling women aged 60 years and older. The exclusion criteria were musculoskeletal or nervous system diseases or conditions that could restrict mobility. Data were collected by a survey consisted of sociodemographic questions and four specific questionnaires. Depression state was measured by Center for Epidemiologic Studies Depression Scale (CESD). Well-being was measured using: Control, Autonomy, Pleasure, and Self-realization (CASP-19), Satisfaction with Life Scale (SWLS) and The Positive and Negative Affect Schedule (PANAS). Correlation was determined using Spearman correlation coefficient.
Results: The study was performed on 161 women. Mean age of study sample was 69.9±5.1 years; the youngest woman was 60 years old, the oldest one – 84 years old. Average of special questionnaires scores were: CESD – 15.0±6.9; CASP-19 – 37.2±9.6; PANAS positive affect – 34.6±6.4, PANAS negative affect – 21.4±6.2, SWLS – 25.1±4.5. Our findings suggest that CESD score correlated with CASP-19 score (r=-0.36, p=0.03) and separately with three of CASP-19 domain scores: control (r=-0.38, p=0.02), autonomy (r=-0.36, p=0.02), and self-realization (r=-0.44, p=0.004). Correlation with pleasure domain was not found, as well as correlation with positive subscale of PANAS scores. Further analysis showed CESD score correlation between and SWLS (r=-0.42, p=0.01) and PANAS negative affect subscale (p=0.002; r=0.48) scores.
Conclusions: Our study showed that depressive state was associated with well-being: negatively with CASP-19 and SWLS and positively with and PANAS negative affect subscale.

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The relationship between depression and perceived social support among community-dwelling elderly in Ladakh, India

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Introduction: Recent studies have reported a positive correlation between altitude and suicide rate. Suicide rate is known to be significantly associated with depression. According to our past study inLadakh, India, despite its location at a 12,000 feet high altitude, the depression rate was lowamong community-dwelling elderly. The purpose of the present study was to investigate therelationship between depression rate and perceived social support and religiosity among theelderly in Ladakh.
Methods: A total of 88 community-dwelling elderly aged 64.1 (± 12.6) years living in Domkharvalley, Ladakh, participated in this study. All participants underwent a medical check-up, and wereinterviewed using the Multidimensional Scale of Perceived Social Support (MSPSS), GeriatricDepression Scale (GDS), Religions Commitment Inventory-10 (RCI-10), and Visual Analog Scale (VAS) for subjective quality of life. We compared variables including age, sex, marital status, education levels, number of housemates and children, MSPSS, RCI-10, and VAS between theDepression group (GDS >6) and No Depression (GDS ≦6) group.
Results: The perceived social support from family and significant others were lower in theDepression group. There were no significant differences between the two groups in total MSPSSscores, social support from friends, or RCI-10 scores.
Conclusions: The No Depression group perceived more social support from family and significantothers than the Depression group. People in Ladakh are devout Buddhists and have survived theharsh environment of the high altitude by helping each other. This social background could haveinfluenced the low depression rate despite a high altitude.

Area: Urology and continence management

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Association of urinary incontinence with geriatric syndromes in community-dwelling highly functional people aged 65 and over

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Introduction: We investigated the prevalence of urinary incontinence (UI) and its association with common geriatric syndromes (GS), in a Greek community-dwelling population, aged ≥65 years.
Methods: Secondary database analysis of a cross-sectional study.
Results: We studied 402 persons (54.7% women), mean age 73.7 (±5.8) years. UI was reported by 42.3% of them; 34.4% as occasional accidents and 7.9% as a permanent phenomenon. People with UI in comparison to those without, were more likely to: be women (74.7 vs 40.1%, p<0.001), take more drugs (6.8±3.1 vs 5.7±3.2, p<0.001), present more chronic comorbidities (4.4±1.9 vs 3.7±2.0, p<0.001), lower MMSE scores (26.9±3.0 vs 27.7±2.2, p=0.001), higher 15-items' Geriatric Depression Scores (4.8±3.4 vs 3.5±3.1, p<0.001), higher disability in Global Disability Scale (27.7±15.3 vs 21.3±14.0, p<0.001), slower 3 meters' Timed-Up-and-Go (TUG) performance (11.5±3.5 vs 10.6±3.7sec, p<0.001), fall history (74.9 vs 56.9% p<0.001), higher pain levels (35.3 vs 62.5% with no, 44.7 vs 26.7% with low and 20.0 vs 10.8% with high pain levels, p<0.001) and globally more coexisting GS (2.3±1.3 vs 1.6±1.2, p<0.001), but did not differ in age (73.8±5.6 vs 73.7±6, p=0.807). They were also more likely to report anxiety and sleep problems (70.6 vs 53.9%, p=0.001) and lower self-rating health status (54.1 vs 64.7% in the high-ranking category, p=0.007). Neither diabetes nor diuretics, taken by 190 (47.3%) individuals, were associated with UI. Results remained similar after adjustment for sex, except for TUG test (p=0.313).
Conclusions: UI is highly prevalent even in relatively young community-dwelling populations and is associated with various other GS, which could all incur a negative impact on a person's functional status. Clinical awareness is required when assessing older adults with UI, since it could only be the tip of the iceberg.

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Efficacy of transcutaneous posterior tibial nerve stimulation in older patients with overactive bladder syndrome

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Introduction: The main objective of this study is to determine the efficacy of transcutaneous posterior tibial nerve stimulation (TPTNS) in older patients with overactive bladder (OAB) syndrome. The secondary objective is to look for predictive factors of efficacy of this treatment.
Methods: All patients aged over 65 years with OAB syndrome for which TPTNS was introduced between 2010 and 2016 in 2 neuro-urology centers were included. Age, gender, etiology of OAB, urinary symptoms and detrusor overactivity (DO) were retrospectively collected. The main outcome was efficacy of TPTNS (i.e. purchase of the device between 3 and 6 months). Association between patient characteristics and efficacy was examined in logistic regression models.
Results: A total of 271 patients were included (mean age 74.2 years; 63.8% of women), of whom 50.8% had neurogenic OAB (44.9% with parkinsonian syndromes). 75.6% had urinary incontinence and DO was found on urodynamic studies for 145 patients. The overall efficacy was 45.8%. None of the factors tested were significantly predictive of efficacy, especially age (≥75 years, p=0.54), stress urinary incontinence (p=0.48) and DO (p=0.39), whether neurogenic or not, except a center effect (p=0.03). This was not sustained after adjustment for age and DO.
Conclusion: TPTNS is an effective treatment in older patients with OAB syndrome. No predictive factors of efficacy were found, especially age and DO. If a center effect has been found, the place of TPTNS in OAB management (first line vs failure of a previous treatment) is under study.

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Indication change from appropriate to inappropriate use of urinary catheters between medical and surgical hospitalized elderly patients

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Introduction: Urinary catheterization is a commonly used procedure in hospital setting but may lead to complications. Our study was to compare risk factors between medical and surgical hospitalized elderly patients with or without change of appropriateness of urinary catheters.
Methods: From October 1, 2012 to October 31, 2013, hospitalized patients aged ≥65 years, with appropriate use of urinary catheters placed within 24 hours of hospitalization, were enrolled. Data were collected from medical records and standardized interviews with patients or surrogates. Indications for urinary catheters were assessed every day and inappropriate use was considered if no more indication existed.
Results: A total of 198 patients with appropriate use of urinary catheters was observed. Indication change from appropriate to inappropriate use of urinary catheters occurred in 36 (38.7%) of medical patients and 71 (67.6%) of surgical patients. Univariate analysis showed that the change to inappropriate use occurred more often among medical patients with higher comorbidities, for convenience by caregivers and by patients, while it occurred more often among surgical patients who were female, with cognitive impairment, ADL impairment, higher comorbidities, for convenience by caregivers and by patients, for comfort by patients, and less documentation for urinary catheters. Multiple logistic regression showed that the change to inappropriate use occurred more often among medical patients with higher comorbidities, and among surgical patients for comfort by patients.
Conclusion: There is higher rate of change from appropriate to inappropriate use of urinary catheters among surgical elderly patients. Education to caregivers and patients, and monitoring the changing indications and different risks among medical and surgical inpatients might be helpful.

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Patient reported urinary incontinence and quality of life after radical prostatectomy

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Introduction: Radical prostatectomy remains the best treatment for localized and locally advanced prostate cancer, but complications like urinary incontinence and erectile dysfunction may alter the surgical outcomes and decrease the quality of life of prostate cancer patients. The objective of the study was to assess the impact of radical prostatectomy on urinary continence and quality of life after radical prostatectomy for prostate cancer.
Methods: We carried out a prospective study in "Prof. Dr. Th. Burghele" Clinical Hospital, Department of Urology. The study took place between 2015 - 2016 and we evaluated 134 patients diagnosed with prostate cancer in localized or locally advanced stage with the use of two questionnaires – QLQ-C30 and QLQ-PR25 pre and post radical prostatectomy. We divided the patients in 2 groups: a preoperative group and a postoperative group that underwent radical prostatectomy. The age distribution of the two groups was: for the preoperative group the mean was 63.52 years, and for the postoperative group the mean was 66.23 years.
Results: In operated patients over 65 years, the urinary symptoms were more severe compared to unoperated patients ($p<0.005$). After radical prostatectomy, 30.6% of patients have accused the presence of urinary incontinence. Urinary incontinence frequency was higher in patients over 65 years (38.1%), compared to patients below 65 years (23.2%). Overall health status scale scores (QLQ-C30) decreases postoperatively, representing a decrease of overall health.
Conclusions: Quality of life was seen as impaired by patients treated with radical prostatectomy. Age over 65 years brings reduced functionality and louder symptoms after radical prostatectomy, urinary incontinence being a disturbing complication.

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Quality of life among elderly women with urinary incontinence

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Introduction: Urinary incontinence (UI) is a health problem prevalent in various age groups [1]. Due to anatomical and physiological peculiarities, it is more common in women and influences various aspects of quality of life [3,2]. Women still do not want to talk about UI and it causes that this problem often remains undiagnosed [4].
Methods: Women aged 65 years and more were surveyed. The original questionnaires were used with permissions: SF-36v2 – generic questionnaire of quality of life; I-QOL – specific questionnaire of quality of life. Statistical calculations were performed by using IBM SPSS 23.0 software package.
Results:: 127 women participated in the study. Answers of SF-36v2 questionnaire showed that the mean of quality of life was 45 pts. The lowest scores were observed in subscales General Health (30 pts), Vitality (40 pts), and Bodily Pains (42 pts). Meanwhile Physical Functioning and Emotional Roles had highest scores (respectively-58 and 51 pts). Women with UI had statistically significantly poorer quality of life than other elderly women. I-QOL questionnaire revealed that the total quality of life was 71 pts on average. The best measured component was related with psychosocial impacts (75 pts) while avoidance behaviors and social embarrassment were scored lower (68–69 pts). Comparative analysis of women with UI versus without UI revealed that the former group had statistically significantly lower quality of life.
Conclusion: Quality of life among elderly women with UI is lower than among other women. Also, study showed that UI is associated with quality of life aspects.
References:

[1] Damián J, Pastor-Barriuso R, García López FJ, de Pedro-Cuesta J. Urinary incontinence and mortality among older adults residing in care homes. J Adv Nurs. 2017 Mar;73(3):688–699.
[2] Dumoulin C, Tang A, Pontbriand-Drolet S, Madill SJ, Morin M. Pelvic floor morphometry: a predictor of success of pelvic floor muscle training for women with stress and mixed urinary incontinence. Int Urogynecol J. 2017 Jan 12.
[3] Santini S, Andersson G, Lamura G. Impact of incontinence on the quality of life of caregivers of older persons with incontinence: A qualitative study in four European countries. Arch Gerontol Geriatr. 2016 Mar-Apr;63:92–101.
[4] Di Rosa M, Lamura G. The impact of incontinence management on informal caregivers' quality of life. Aging Clin Exp Res. 2016 Feb;28(1):89–97.

P-699

The use of a urinary tract management protocol in an integrated hip fracture unit to reduce urinary tract infections

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Introduction: Globally, the incidence of Urinary Tract Infections (UTI) in hip fracture elderly is 23%-25%. UTI increases the risk of delirium, associated with an increased length of hospitalisation and is a common cause of readmission from community hospital. A comprehensive nurse-led urinary tract management protocol was introduced in the integrated Hip Fracture Unit (HFU) to reduce incidences of UTIs in elderly patients with hip fractures during the peri-operative period.
Methods: Firstly, a nurse-initiated protocol instead of a doctor-driven approach was introduced to prevent catheter-associated UTI (CAUTI). Nurses will remove patients' indwelling urinary catheter (IDC) on the morning of 2nd post-operation day. To avoid reinsertion of IDC, nurses will initiate routine intermittent catheterisation (IMC) instead should trial-off-catheter failed. Additionally, high risk male patients will be administered PO Tamsulosin for a period of not more than 7 days to reduce their risk of post-operative urinary retention. Furthermore, all patients will undergo routine blood and urine tests to assess their risk of kidney injury, with intravenous hydration initiated as appropriate.
Results: Of the 357 hip fracture patients from January to December 2016, there were 58 cases of UTI (16%) of which 5 cases were CAUTI (1.4%). The readmission rate from community hospital was 1.4% (5 cases) while the incidence rate of delirium is also significantly lower compared to international data.
Conclusions: UTI is a common complication of hip fracture. A comprehensive nurse-led multidisciplinary urinary tract management protocol has successfully reduced the incidence of UTI especially CAUTI among our HFU patients hence preventing related complications.

P-700

Urinary catheter use and care in the acute hospital setting: a point prevalence study

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Background: Urinary catheters (UC) are associated with poor out-

comes in hospitalised older adults including infection, delirium, and trauma. We sought to determine the point prevalence of UC use and to review the process employed for both the decision to catheterise and ongoing care thereafter. A basic nursing UC bundle is available, but there is no other resource to direct clinical decisions regarding UCs.

Method: In a single day all admitted patients in a tertiary university teaching hospital were screened for the presence of an in-dwelling UC. Clinical, nursing, ED and peri-operative notes were reviewed for evidence of clinical indication, catheter care records, and review of ongoing clinical need with view towards timely removal. Patients in critical care units were excluded.

Results: 56 of 386 eligible patients had an indwelling catheter with a point prevalence of 14.5%. 75% (42/56) of whom were aged ≥65 years, and 64% (36/56) were male. 86% (48/56) were newly inserted on current admission, with seven inserted due to brain and spinal injuries. In 14% (9/56) there was no indication recorded, with other indications including urinary retention 19.6% (11/56) or as part of haemodynamic stabilisation protocol 12.5% (7/56). Only 14.5% (7/48) of those with newly inserted UC had a trial-without-catheter (TWOC) and of these only 4 had formal urology input.96% (54/56) had a complete nursing catheter care bundle.

Conclusion: Limitations in UC care were identified. Inconsistency in medical record keeping regarding both decision to catheterise and of review regarding early removal could be targeted with an appropriate protocol to prompt earlier TWOC, urology input when warranted.

P-701

Urinary incontinence in aged women: Prevalence and risk factors

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Introduction: Urinary incontinence (UI) is a health problem prevalent in various age groups [1,4]. Based on scientific literature, incontinence is more common in women and the prevalence of it is over 30% [2,3]. There is still no effective predictive assessment framework for UI and more research is needed [4].

Methods: Elderly women who visited the general practitioner were surveyed. The original questionnaires were used: MMSE – mini-mental state examination, used for evaluation of cognitive function; GDS – geriatric depression scale, used for evaluation of depressiveness. Also, we asked elderly women their demographic data and them physical health. Statistical calculations were performed by using IBM SPSS 23.0 software package.

Results: 127 women participated in the study and mean age of participants was 76.6±7.50 years. The most common diseases were arterial hypertension (84%), urinary incontinence (77%), constipation (53%), and cardiac arrhythmia (48%). Study participants' mean body mass index (BMI) was 28.0±6.95 kg/m^2 (range 19–79). More than half (55%) of responders had no cognitive dysfunction, 21% had mild, 13% – moderate, and 11% – severe cognitive impairment. 78% of elderly women had certain level of depression (32% mildly depressed and 46% severely depressed), while 22% of women had no depression. Average GDS score was 9.6±4.01. The results demonstrated that the associated factors with UI ($P<0.05$) were cognitive impairment (OR=7.36), depressiveness (OR=3.62), history of gynecologic surgery (OR=3.53) and constipation (OR=3.22).

Conclusion: Prevalence of urinary incontinence in elderly women visiting the general practitioner is 77%. The main factor associated with urinary incontinence is cognitive impairment.

References:

[1] Damián J, Pastor-Barriuso R, García López FJ, de Pedro-Cuesta J. Urinary incontinence and mortality among older adults residing in care homes. J Adv Nurs. 2017 Mar;73(3):688–699.
[2] Dumoulin C, Tang A, Pontbriand-Drolet S, Madill SJ, Morin M. Pelvic floor morphometry: a predictor of success of pelvic floor muscle training for women with stress and mixed urinary incontinence. Int Urogynecol J. 2017 Jan 12.
[3] Di Rosa M, Lamura G. The impact of incontinence management on informal caregivers' quality of life. Aging Clin Exp Res. 2016 Feb;28(1):89–97.
[4] Troko J, Bach F, Toozs-Hobson P. Predicting urinary incontinence in women in later life: A systematic review. Maturitas. 2016 Dec;94:110–116.

P-702

Urinary incontinence predicts the onset of cognitive impairment

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Introduction: Urinary incontinence is a common condition in the elderly, particularly in demented people. However, if urinary incontinence could predict the onset of poor cognitive status is poorly known.

Methods: Data was gathered from the Progetto Veneto Anziani (Pro.V.A) dataset, a longitudinally assessed cohort of community-dwelling older people in Italy. The mean follow-up period was 4.4 years. Urinary incontinence was defined through self-reported questions regarding the activities of daily living. Cognitive impairment was assessed through mini-mental state examination (MMSE) using a score of less 24/30.

Results: In total 1,414 people were included, of them 540 (=38.2%) suffers from urinary incontinence. At baseline, participants with urinary incontinence were significantly older, females and had a lower MMSE score (27.1±1.8 vs. 27.3±1.7, $p<0.0001$). During follow-up, participants with urinary incontinence had a significant greater decrease in MMSE (−2.29±5.19 vs. −1.38±4.19, $p<0.0001$) than those without this condition. Subjects with urinary incontinence had a significant increased odd of cognitive impairment at follow-up compared to those without (Odds Ratio (OR)=1.17; 95% CI: 1.06–1.29, p=0.001), after adjusting for 13 potential baseline confounders.

Conclusions: Urinary incontinence is a common condition in the elderly and seems to increase the onset of poor cognitive status. Greater awareness is required for physicians to screen/investigate this population at potential higher risk of poor cognitive status.

P-703

Urinary retention in older patients with lower urinary tract symptoms: prevalence, associated factors and impact on management

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Introduction: The objectives are to determine the prevalence of urinary retention (UR) in older patients with lower urinary tract symptoms (LUTS), as well as factors associated with UR and impact of UR screening in the management of LUTS.

Methods: A cross-sectional multicentric study included all patients

over 65 years with LUTS. A comprehensive geriatric evaluation and screening of UR (i.e. uroflowmetry with post void residual volume (PVR) measurement) were performed. UR was considered as a continuous or a binary variable (i.e. PVR ≥100 mL). Associations between characteristics of patients and UR were examined in regression models. Impact of UR screening was evaluated by the percentage of modification of initial management.
Results: A total of 25 patients were included (mean age 82.1±5.8 years, 88% women). The main complaint was urge urinary incontinence (32%). LUTS were severe in 48% of cases and 56% of patients used pads. Prevalence of UR was 16% and mean PVR was 49.7±100.1 mL. No association was found between UR and type of LUTS. There was an association between MMSE (p=0.02), undernutrition (p=0.046) and UR, that was not sustained on multivariate analysis. Screening of UR led to modification of the initial management in 2 cases.
Conclusion: UR is not uncommon in symptomatic older patients, but was not associated with type of LUTS. No determinants of UR were found in this preliminary analysis. Finally, screening of UR led to a modification of management in less than 10% of cases.

P-704
What are uro-geriatric factors that impact decision making in the elderly, with a refractory urinary retention, after a multidisciplinary team board?

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Introduction: The indwelling urinary catheter (IUC) is over used on the elderly, with a risk of complications. Alternative treatments exist but underused due to difficulties of decision making. The aim of the study is to analyze factors that influence decision-making by a multidisciplinary team board, after a comprehensive geriatric assessment (CGA), in the elderly with a refractory urinary retention.
Methods: A standardized multidisciplinary team board was established for patients, over 70 y, with a refractory urinary retention, over a 1-Year period in 2016. Decision making for each patient was made after a CGA. Uro-geriatric and demographic clinical data were collected. We collected the alternative technics and their respective success rates (defined by the lack of urinary retention at 7 days).
Results: Ninety-seven were enrolled with a mean age of 87 y with 37% of women. Alternative technics was offered in 58,8% (n=57), including 30 catheter withdrawals, 13 thermo-expandable intra-prostatic stents, 15 prostatic photovaporizations. The global success rates of alternative technics were 93% (n=53). In univariate analyzes, predictive factors of IUC were neurologic comorbidities (HR: 3.1 [1.6–7.7], p=0.014), an important dependence (ADL <2) (HR: 5.5 [2.2–14], p<0,001) and an older age (HR: 1.1 [1.1–1.2], p=0.017). In multivariate analyzes, the factor was the dependence (ADL <2) (HR: 5 [1.9–12.9], p=0.001). Compare to photovaporizations of the prostate, incontinentation's surgeries were significantly proposed for older patients (86 y vs 81,4 y, p=0,026), more dependent (ADL <2, 83.3% vs 13.3%, p<0.001), with neuroleptic treatments (50% vs 13.3%, p=0.038) and a risk to tear off the catheter (83.3% vs 20%, p=0.001).
Conclusion: Dependence appears to be an important factor influencing decision making in the elderly with urinary retention. A multidisciplinary analysis offers a better chance to screen patients and propose a personalized treatments adapted to their profile.

Area: Geriatrics in organ disease

P-705
Acute heart failure in elderly patients: clinical characteristics and prognosis. Realworld evidence from ATHENA registry

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Introduction: Clinical registries and clinical trials do not represent completely the "real world" of acute heart failure (AHF) in the elderly because of selection bias. Our purpose was to compare the clinical characteristics and prognosis of elderly patients hospitalised for AHF in cardiology, internal medicine and geriatrics.
Methods: Data derived from the ATHENA retrospective observational study which included elderly patients (≥65 years) admitted for AHF to the Emergency department (ED) of a tertiary University teaching-hospital and transferred to the above described settings of care in the period 01.12.2014–01.12.2015.
Results: 342 patients were enlisted: 17.8% from cardiology, 17.3% from geriatrics and 64.9% from internal medicine. Mean age was 83.7 years, resulting higher in geriatrics (86.9 years) versus internal medicine (83.6 years) and cardiology (81.0 years), P=0.001. Females were 54.1%, without statistically significant differences between the three settings. Patients with HFpEF were 61.0% and predominated in geriatrics (62.5%) and internal medicine (65.0) compared to cardiology (49.1%), P=0.116. In-hospital mortality was 7.3% and it was higher in cardiology and geriatrics (11.0%) compared to internal medicine (5.0%), (P=0.075). The analysis of independent predictors of in-hospital mortality showed the relationship between age and mortality (OR=1.18 CI=1.05–1.32, P=0.002) and the reverse relationship with the systolic blood pressure at the ED entry (OR=0.96, CI=0.94–0.99, P=0.011); in-hospital mortality was significantly lower in patients hospitalized in cardiology (OR=0.32, CI=0.12–0.87, P=0.025).
Conclusions: Elderly patients with AHF are significantly different in terms of clinical characteristics and prognosis according to the different settings of care.

Late Breaking Abstracts – Poster presentations

LB-006
Age-related variations of skeletal muscle mass and strength among Italian and Taiwanese community-dwellers: results from the Milan-EXPO Survey and the I-Lan Longitudinal Aging Study

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Background: Age- and gender-specific curves of muscle mass and strength, using data from large samples of community-dweller people, need to be better established and so are possible differences among ethnic groups. The aims of the present study were to

analyze age- and gender-specific changes in measures of muscle and strength among community-living persons and to identify differences between Caucasian and Asiatic individuals.
Methods: The Italian survey ("Longevity Check-up"), conducted during EXPO 2015 in Milan, consisted of a population assessment aimed at evaluating the prevalence of specific health metrics in persons outside of a conventional research setting (n=1924), with a special focus on muscle mass and strength. The Taiwanese survey used the first-wave sampling from the I-Lan Longitudinal Aging Study (ILAS) collected from August 2011 to August 2013 (n=1839). Muscle mass was estimated by using calf circumference of the dominant side. Muscle strength was determined through handgrip strength testing.
Results: The mean age of the 1924 Italian participants was 62.5±8.3 years, of whom 1031 (53.6%) were women. Similarly, the mean age of the Taiwanese sample was 63.9±9.3 years with 966 (52.5%) women. Overall, cross-sectional observations suggest that calf circumference decline with age in both genders. The calf circumference was significantly greater among Italian participants compared with Taiwanese people in all age groups. A similar effect of age was observed for muscle strength. As for calf circumference, muscle strength was significantly greater among Italian persons relative to Taiwanese participants.
Conclusions: Muscle mass and strength curves for Caucasian and Asiatic people may be used to derive reference values for subsequent use in research and clinical settings. In particular, the analyses of trajectories of muscle parameters may help identify cutoffs for estimating risk of adverse events as well as the optimal timing for intervening.

LB-007
Risk factors for fall screening for identifying population at risk of prolonged length of stay

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Introduction: Fall is a frequent event among the elderly and the hospitalisation rate increases with age. Many risk factors for fall have been identified [1] and the risk of fall itself increases with the number of factors [2]. In our study, we stated the hypothesis that the number of risk factors for fall increases the length of stay.
Method: Retrospective study over a year including hospitalised patients after a fall in an acute geriatric care unit in Paris. 10 risk factors for fall were selected. First the lenght of stay and the number of risk factors for fall were analysed using a linear regression method. Secondly each individual risk factor, the main etiology of fall and the complications after fall were studied.
Results: 171 stays were analysed. The mean length of stay was 33.2 days. Cumulative risk factors for fall (p=0.016), a tumoral cause of fall (p=0.038), complications of fall (p=0.001) and delayed complications after fall ($p=3\times10^{-3}$) increased the length of stay.
Conclusion: Early screening of risk factors for fall for each patient hospitalised after a fall can help to identify a population at risk of prolonged stay. Specific interventions aimed to this population could prevent recurrent hospitalisations and falls, and prolonged stays.
References:
[1] Rubenstein LZ, Josephson KR. The epidemiology of falls and syncope. Clin Geriatr Med 2002.
[2] Tinetti ME, Speechley M, Ginter SF. Risk factors for falls among elderly persons living in the community. N Engl J Med 1988.

LB-008
Effects of transcranial magnetic stimulation on Alzheimer's disease

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Alzheimer's disease (AD) is a neurodegenerative disease associated with a gradual regression in cognitive function. Transcranial Magnetic Stimulation (TMS) is an alternative treatment that can be used in addition to pharmacological treatment. We aimed to investigate the effect of the repeated TMS (rTMS) in addition to pharmacological treatment in AD.
Eighteen patients aged 60 years and older with AD were included in the study and separated to 2 groups. In TMS group (n=10) 20 Hz rTMS was applied to the bilateral Dorsolateral Prefrontal Cortex for consecutive 5 days a week for 2 weeks. In control group (n=8) only pharmacological treatment was applied. Individuals were evaluated for neuropsychiatric and behavioral status, cognition, depression, level of physical activity, quality of life and functional changes of brain before and after treatment.
Statistically significant difference was found in attention, executive functions, behavioral status, level of physical activity and quality of life in the TMS group; in memory and behavioral status in the control group ($p<0.05$). We found that rTMS treatment was effective on Default Mode Network, Executive Control Network and Dorsal Attention Network.
Our findings showed that therapeutic methods that appear to be an alternative in AD are in fact influenced by different areas of the cognitive and behavioral profile. In conclusion, our study showed that high frequency rTMS treatment in addition to pharmacological treatment may produce effective treatment against the disease. In AD, detailed studies are needed to better understand the destruction of cognitive functions and functional changes in the brain.

LB-009
Dental care utilization in patients with different types of dementia: a longitudinal nationwide study of 58,037 individuals

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Introduction: Dementia may be associated with discontinuation of regular dental checkups, which in turn results in poorer oral health. We aimed to investigate the trend of change in dental care utilization and its contributing factors in older people before and after being diagnosed with different types of dementia.
Methods: In this cohort study, data on 58037 individuals with dementia was obtained and merged from the Swedish Dementia Registry (SveDem) and the Swedish Dental Health Register during 2007–2015. Onset age, type of dementia, medications, living status and mortality were recorded. Cognitive status was assessed using mini mental state examination (MMSE) at baseline and each follow-up visit. Longitudinal year-by-year panel data on dental care utilization, type of operation and number of remained teeth was prepared 3-years prior to 3-years after dementia diagnosis.
Results: Following dementia diagnosis, rate of dental care visits significantly declined from 1.5 to 0.9 per year ($p<0.001$). After multivariate adjustments, individuals with mixed dementia, dementia with Lewy bodies, Parkinson's disease dementia and those with faster cognitive impairment had significantly higher rate of decline in dental care utilization (all $p<0.05$). Vascular dementia and lower baseline MMSE score were significant predictors of faster loss of teeth.
Conclusions: Dental care utilization markedly declines following

dementia diagnosis in geriatric population. The reduction is more prominent in those with rapid progressive cognitive impairment and the ones with extra frailty burden. Caregivers and health care workers should facilitate adequate dental care for frail older individuals with dementia.

LB-010

The mortality determinants of sarcopenia and comorbidities in hospitalized geriatric patients

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Objectives: This study sought to determine the influence of muscle mass, muscle strength, physical performance, nutritional status and two specific comorbidities – heart failure and orthopedic surgery – on the four years mortality risk of hospitalized geriatric patients.
Design: A retrospective cohort study.
Setting: During hospitalization of the included geriatric patients, the determinants of sarcopenia were measured and the nutritional status was surveyed.
Participants: All patients hospitalized at the geriatric department of the Saint-Elisabeth hospital in Antwerp (Belgium) from 01/08/2012 until 31/01/2013 were included. No patients were excluded. A total of 302 subject were obtained.
Measurements: The muscle mass was measured by a computed tomography (CT) scan of both upper legs. The muscle strength was obtained by measuring the handgrip strength using a Jamar dynamometer. The physical performance was measured by performing the Short Physical Performance Battery (SPPB). The nutritional risk status was surveyed by using a questionnaire, i.e. the Mini-Nutritional Assessment – Short Form (MNA-SF). The comorbidities were obtained later through research of medical records.
Results: The variables gender (HR=0.609; 95% CI: 0.442–0.838), nutritional status (HR=2.953; 95% CI: 1.924–4.531), muscle mass (HR=0.443; 95% CI: 0.251–0.780), muscle strength (HR=0.215; CI 95% 0.079–0.587), physical performance (HR=0.407; 95% CI: 0.237–0.702) and heart failure (HR=1.440; 95% CI: 1.022–2.029) have been shown to be significant in determining the 4 years mortality risk in hospitalized geriatric patients. Age and orthopedic surgery had no significant relation with mortality.
Conclusion: The determinants which have the greatest prognostic value in predicting the four years mortality risk were gender, nutritional status and physical performance.

LB-011

Which specific executive functions are predictors of functional decline in community-dwelling older adults?

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Introduction: The relationship between executive functions and gait speed, fall risk and functional decline (FD) is emerging in the medical literature. Previous studies have underlined the importance of controlling automatic behavior, planning appropriate behavior and initiating goal-directed behaviors in health management like fall prevention. In our study, we aim to link specific executive functions, such as inhibition, planning, spontaneous and reactive flexibility and working memory, to the risk of FD.
Methods: A prospective cohort of community-dwelling older adults was screened for frailty (Fried criteria) at baseline and assessed for FD after a 6 months period. All participants completed a neurocognitive evaluation including 5 executive processes and a comprehensive geriatric assessment (CGA) including mobility scales (timed get-up and go test, short physical performance battery, handgrip and performance oriented mobility assessment scale).
Results: A total of 99 old subjects (mean age: 81.6 years) was included. Using a hierarchic multiple regression analysis, the model showed a significant association between frailty indicators and FD. When executive function indicators were introduced in the model, errors in inhibition and planning time were shown to be significant risk factors of FD. These results remained unchanged when mobility scales were introduced as covariates.
Conclusions: We conclude that executive functions including inhibition and planning time, which are closely related to the control of automatic behavior and the planning of goal-directed behavior, are potential risk factors for FD. We suggest that implementing a screening tool of those executive functions in CGA could help in the prevention of FD.

LB-012

Optimization of polypharmacy in geriatric patients using a clinical decision support system

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Background: Polypharmacy is a known risk factor for potentially inappropriate prescribing. Recently there is an increasing interest in clinical decision support systems (CDSS) as a computer tool for improving polypharmacy. A randomised controlled trial in Ireland showed that a structured review of medication supported by a CDSS can improve the appropriateness of medication regimens and reduces the incidence of adverse drug reactions in older hospitalised patients. However, so far no attention has been devoted to patients admitted to a geriatric department. This is relevant because polypharmacy is highly prevalent in this population.
Objective: The objective of this study was to evaluate the impact of a CDSS, with the START-STOPP criteria as main content. Endpoints were 1) appropriateness of prescribing, and 2) acceptance rate of recommendations.
Methods: a multicentre prospective study comparing the use of a CDSS with usual care was performed in patients at the geriatric department of two non-academic teaching hospitals in the Netherlands. Patients were included from January till May 2017. Medication appropriateness was assessed with the Medication Appropriateness Index (MAI).
Results: 125 patients with a median age of 83 years were reviewed. In both the usual care and intervention group MAI scores were significantly declined at discharge. This effect was significantly larger in the intervention group. MAI scores at discharge between the usual care group and the intervention group were respectively 9.95±6.70 and 7.26±5.07. The CDSS created 193 recommendations of which 71 START, 45 STOPP and 77 interactions. 31.6% of the recommendations were accepted.
Conclusion: This study showed that a CDSS used for optimising polypharmacy does have additional value in a setting of a geriatric department. However the usual care at a geriatric department already improves the appropriateness of prescribing substantially.

LB-013

A frailty intervention therapy team (FITT) pilot led by health and social care professionals (HSCP) in a Teaching Hospital

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Introduction: Frail older people have a longer length of hospital stay and have worse outcomes from their inpatient stay [1]. The aim of the initiative was to identify frail older people admitted to the Mater Misericordiae University Hospital and to develop an assessment service at the "front door" to enable a Multi-Disciplinary Team (MDT) consensus to ensure best possible care for the patient.
Methods: FITT was made up of 5 HSCPs - Dietetics, Medical Social Work, Physiotherapy, Occupational Therapy and Speech & Language Therapy for the pilot from March-May 2017. FITT identified patients >75 years old using the local FITT Common Screening Tool including Rockwood Clinical Frailty Scale [2]. Patients received intensive early MDT intervention. Daily FITT "huddles" discussed patient intervention and discharge planning with HSCPs completing interdisciplinary treatments as required. On the patient's 8th day in hospital, FITT reviewed the patient's care and discussed the interventions required to expedite discharge.
Results: 107 patients were accepted by FITT (Mean age 85 years, SD=6.5 years). 69% of patients assessed and treated by FITT required the input of 3 HSCP disciplines or more, with 29% requiring all 5 disciplines. The mean Length of Stay (LOS) for patients assessed, treated and discharged by FITT was 7.7 days. This was shorter than the LOS for patients in same age category not treated by FITT in the same time period (15 days).
Conclusions: "Front Door" identification of frail older people and intensive early MDT intervention may reduce the length of hospital stay for these patients who have complex multidisciplinary needs.
References:

[1] Eeles EM, White SV, O'Mahony SM, Bayer AJ, Hubbard RE. The impact of frailty and delirium on mortality in older inpatients. Age Ageing. 2012;41(3):412–6. [PubMed]
[2] Rockwood K, Song X, MacKnight C, Bergman H, Hogan DB, McDowell I, Mitnitski A. A global clinical measure of fitness and frailty in elderly people. CMAJ. 2005;173(5):489–95.

LB-014
High degree of BMI misclassification of malnutrition among Swedish elderly population: Age-adjusted height estimation using knee height and demi-span

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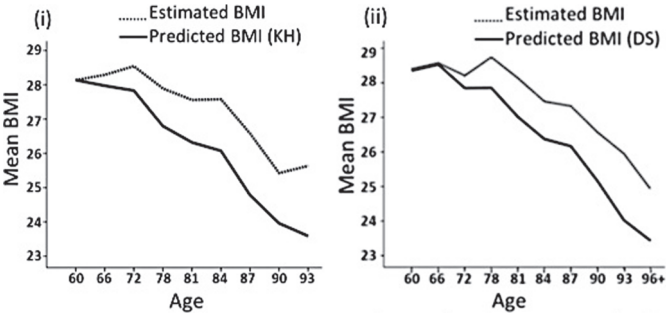
The degree of misclassification of obesity and undernutrition among elders owing to inaccurate height measurements is investigated using height predicted by knee height (KH) and demi-span equations. Cross-sectional investigation was done among a random heterogeneous sample from five municipalities in Southern Sweden from a general population study 'Good Aging in Skåne' (GÅS). The sample comprised two groups: Group 1 (KH) including 2839 GÅS baseline participants aged 60–93 years with a valid KH measurement; and Group 2 (demi-span) including 2871 GÅS follow-up examination participants (1573 baseline; 1298 new), aged 60–99 years, with a valid demi-span measurement. Participation rate was 80%. Height, weight, KH and demi-span were measured. KH and demi-span equations were formulated using linear regression analysis among participants aged 60–64 years as reference. Body mass index (BMI) was calculated in kg/m^2. The results obtained were: Undernutrition prevalences in men and women were 3.9 and 8.6% by KH, compared with 2.4 and 5.4% by standard BMI, and more pronounced for all women aged 85+ years (21% vs. 11.3%). The corresponding value in women aged 85+ years by demi-span was 16.5% vs. 10% by standard BMI. Obesity prevalences in men and women were 17.5 and 14.6% by KH, compared with 19.0 and 20.03% by standard BMI. Values among women aged 85+ years were 3.7% vs. 10.4% by KH and 6.5% vs. 12.7% by demi-span compared with the standard. In conclusion, there is an age-related misclassification of undernutrition and obesity attributed to inaccurate height estimation among the elderly. This could affect the management of patients at true risk. We therefore propose using KH- and demispan-based formulae to address this issue.



Comparison between standard BMI and BMI predicted by knee height (KH) (i) and demispan (DS) (ii) based equations.

Recent publications

[1] Gavriilidou NN, Pihlsgård M, Elmståhl S. Anthropometric reference data for elderly Swedes and its disease-related pattern. Eur J Clin Nutr 2015;69(9):1066–75.
[2] Gavriilidis G, Gavriilidou NN, Pettersson E, Renhammar E, Balkfors A, Östergren PO. Empowerment evaluation of a Swedish gender equity plan. Glob Health Action 2014;7:23710.

LB-015
Can doctors identify older patients at risk of medication-related harm at hospital discharge?

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Introduction: Medication-related harm (MRH) is the most common adverse event following hospital discharge affecting 18–37% of older patients [1,2]. At the point of discharge, hospital doctors prescribe patients' medications and share care plans with primary care. We explored whether hospital doctors can predict which patients post-discharge are likely to experience MRH requiring healthcare.
Methods: The methods for this multicentre prospective cohort study have been published [3]. Patients 65 years or above were recruited at hospital discharge from five teaching hospitals in South England between September 2013 and November 2015. A questionnaire was used to collect data from doctors about their prediction of whether patients might experience MRH requiring healthcare, and their degree of confidence in this prediction (little or no confidence to virtually certain). Research pharmacists collected hospital readmission and GP record data, and conducted a patient/carer telephone interview to establish if MRH occurred over an eight-week follow-up period.
Results: Data for 1066 patients were analysed; median age 82.0 years (IQR, 75.6–87.0), 58.1% female. The median discharge medicines per patient was 9 (IQR, 7–12). Most predictions (88%) were made by junior doctors (<5 years' clinical experience). In the eight-week follow-up period, 315 patients (29.5%) experienced MRH requiring healthcare. Using logistic regression, there was no relationship between doctors' predictions and future incidence of

MRH (OR 1.10, 95% CI: 0.82–1.46, p=0.53), irrespective of the doctors' level of clinical experience. However, when doctors were more confident in their MRH prediction, it was more likely to be accurate ($p<0.01$).

Conclusions: Discharging doctors cannot predict MRH requiring healthcare in older people being discharged from hospital.

References:

[1] Forster AJ, Murff HJ, Peterson JF, Gandhi TK, Bates DW. The incidence and severity of adverse events affecting patients after discharge from the hospital. Ann Intern Med 2003;138:161–7.
[2] Garcia-Caballos M, Ramos-Diaz F, Jimenez-Moleon Juan J, Bueno-Cavanillas A. Drug-related problems in older people after hospital discharge and interventions to reduce them. Age Ageing 2010;39:430.
[3] Stevenson J, Parekh N, Ali K, Timeyin J, Bremner S, Van Der Cammen T, et al. Protocol for a Prospective (P) study to develop a model to stratify the risk (RI) of medication (M) related harm in hospitalized elderly (E) patients in the UK (The PRIME study). BMC Geriatr 2016;16:22. doi:10.1186/s12877–016–0191–8.

LB-016
Efficacy of subcutaneous route for antibiotic infusion in elderly patients

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Introduction: Subcutaneous (SC) has been described as an efficient and safe route for drug administration with potential benefits in elderly population. The aim of this study was to describe our experience with SC antibiotics in elderlies with an acute infectious process, difficult venous access, oral intolerance and limitation of therapeutic effort.

Methods: Retrospective study of patients hospitalized in an acute geriatric unit, that required SC antibiotics from 01/2012–12/2016. We recollect data from patient, infectious process, antibiotic used, local/systemic effects and clinical/parametric outcomes.

Results: 368 patients received SC antibiotics, mean age 86.6±6.7, women (64.7%), Barthel 39.7±26.2; Cognitive impairment in 71.5% and 31.3% institutionalized. A total of 2446 SC infusions were made, Ceftriaxone (68.4%), Ertapenem (20.7%) and Amikacin (10.9%) with a mean duration of 6.65±4.97 days. The infection focus were respiratory, urinary and biliary tract (48.5, 42.9 and 6.8% respectively). A low proportion of adverse effects (2.7%) were observed, being the principal local edema or erythema at infusion site, mostly associated with Amikacin in relation to infusion rate and diluent used (D5%W>NS0.9%). The clinical cure rate/improvement was high (82.3%), with a significant decrease in acute phase reactants (PCR and Leukocytosis). In 12.2% of patients the clinical course required a change of therapeutic approach to the intravenous route.

Conclusions: Antibiotics administrated by SC route are well tolerated, with a high percentage of clinical/parametrical resolution and minimum local adverse effects. This study supports SC route as a valid approach in the treatment of infectious processes in patients with poor venous accesses and oral intolerance.

LB-017
The disease burden of pertussis in older adults: systematic literature review

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Introduction: Pertussis is a highly contagious respiratory infection causing considerable morbidity and mortality. Despite high vaccination coverage against pertussis in infants worldwide, recommendations for vaccination of adults over 50 years-of-age (50+) are limited. This review aimed at understanding the burden of pertussis in this population.

Methods: A systematic literature review was conducted to identify published studies reporting epidemiological and economic data on pertussis in adults 50+. PICOS framework was used focusing on adults 50+; no restriction on intervention and comparator; observational, cost-of-illness and economic studies. Structured queries were run in MEDLINE, MEDLINE-IN-PROCESS, EMBASE, and Cochrane library with time span from 2006 to September 2016.

Results: Forty-nine epidemiological studies (39 from industrialised countries) and 15 reviews were retrieved. The incidence of pertussis varied widely from <1 to 464 (adjusted for under-reporting) per 100,000 population, lower in industrialised countries compared with non-industrialised countries. A trend towards increase in number of cases in all age groups was observed over time. A higher incidence in dedicated studies than in notified cases from registries was noted, suggesting under-recognition and under-reporting.

Six economic studies were identified from four countries (US, Spain, the Netherlands and Poland). The direct and indirect medical resource utilization was captured with large variations. Overall, pertussis was considered to incur high burden to the health care system.

Key conclusions: Despite large variations in estimates, the burden of pertussis may be larger than reported, thus, this urges for additional studies to reach a consensus on vaccination strategies in 50+ population.

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