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Functionele abstracts

F1 Bevorderen van mobiliteit en voorkomen van functionele achteruitgang van de geriatrische patiënt tijdens een ziekenhuisopname: een multidisciplinaire aanpak

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Doel: Ontwikkelen en implementeren van interdisciplinaire interventies om verlies aan mobiliteit en functionele achteruitgang op een afdeling geriatrie te voorkomen.

Methodologie: De studie, een actieonderzoek, vond plaats in het Jessa Ziekenhuis op een geriatrische afdeling met 28 bedden. Een multidisciplinaire werkgroep (n=8) gebruikte meerdere rondes om tot interventies te komen die mobiliteit promoten en functionele achteruitgang voorkomen tijdens hospitalisatie. In maart 2019 startte de implementatie van zeven interventies, geselecteerd op potentieel effect en haalbaarheid. Na een testperiode van vier weken werden SMART doelstellingen opgesteld om zo opvolging en evaluatie mogelijk te maken zoals het aantal patiënten dat aan tafel eet.

Resultaten: Van de 29 interventies uit de brainstormsessies, werden er zeven geïmplementeerd: patiënt aan tafel laten eten, beperken gebruik wc-stoel, bij aandoen van kousen zelfzorg stimuleren, evaluatie van patiënt in therapie- of gesprekslokaal, minimaliseren gebruik rolstoel op afdeling, ontwikkelen van een fit-o-meter en oefeningen zelfstandig uit te voeren in zit. De implementatie van de interventies kreeg geen weerstand, de compliantie aan de interventies is hoog: een toename van gemiddeld 50% tot 74% van patiënten die aan tafel eten. Het aantal wc-stoelen niet in gebruik varieert, maar blijft beperkt tot maximum 50 %.

Conclusie: Door het interdisciplinaire karakter van dit project worden praktijkknoden zichtbaar wat implementatie vergemakkelijkt. De werkgroep beoogt met minimale interventies een effect bij zowel patiënt en familie als bij de verschillende zorgverleners. Verdere opvolging, evaluatie en eventuele uitbreiding van deze interventies is nodig met het oog op optimalisatie en uitbreiding naar meerdere geriatrie afdelingen binnen het Jessa Ziekenhuis.

F2 Clarifying the relationship between frailty and disability in octogenarians: a cross-sectional analysis.

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Background: Early detection of frailty is necessary to prevent adverse outcomes such as hospitalization, falls, and early death. Relating frailty, and its many operationalizations, to disability is complex. Disability is most seen as a negative health outcome of frailty, although complex activities of daily living (ADLs) might be precursors of frailty. Therefore, this study aims to investigate whether disability (activity limitations and participation restrictions) is associated with prefrailty.

Method: Robust (Fried 0/4; n=236; Mage=82.4yrs(SD±2.2)) and prefrail (Fried 1-2/4; n=241; Mage=83.8yrs(SD±3.2)) community-dwelling octogenarians were included in a cross-sectional analysis. Frailty marks were obtained from weight loss, exhaustion, gait speed, and grip strength. ADLs were stratified according to difficulty and complexity in three levels: basic (b-), instrumental

(i-), and advanced (a-)ADLs and a total Disability Index (DI) for each level of functioning expressed dependency. Being a member of associations, board, membership over time, low/high participation, and volunteering represented participation. Results: The ANCOVA (adjusted for gender, age, and living circumstances) showed significantly more disability in prefrail compared to robust subjects for i-ADL-DI (Mrobust=5.6;Mprefrail=8.9;p Conclusion: More complex ADLs could make a distinction between robust and prefrail and therefore might be precursors or early markers of prefrailty, which participation did not contribute to. Further longitudinal research is needed for the prediction of prefrailty.

F3 Larger health benefits in severe (BMI >35) compared to non-severe obese older adults with type 2 diabetes during combined lifestyle intervention

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Purpose: Weight loss is key in treatment of obese older adults with DM2. We recently showed muscle mass preservation during combined lifestyle intervention (CLI) by adding a protein drink to the diet (PROBE-study), and now evaluated whether severe obese benefit similarly to non-severe obese older adults with DM2.

Methods: We used data from a 3-month CLI of dietary advice (-600 kcal/day) and resistance exercise in which subjects were randomized to receive 10x/week a 20g protein drink or isocaloric control drink. 97 completers (62 male, 35 female) were included in this post-hoc analysis with dependent variables appendicular skeletal muscle mass and visceral adipose tissue (ASMM, VAT; DXA), CRP, insulin sensitivity and resistance (Matsuda, HOMA-IR; OGTT), and blood pressure (SBP, DBP). Linear regression analysis was performed for severe (BMI>35, n=28) and non-severe obese (BMI≤35, n=69) subgroups, with protein intake as independent variable and baseline assessment as confounder.

Results: Mean values were: age 67, BMI 33.3, protein intake during intervention 93±30 gram/day, weight loss -2.6±2.9kg, fat loss -2.8±2.3kg. Per 20g additional protein intake, 68±168g (p=0.686) muscle was preserved in severe obese vs 204±67g (p=0.003) in non-severe obese. Severe obese showed higher response for VAT (-58.9±32.1 (p=0.079) vs +2.5±6.6), CRP (-2.5±1.4 (p=0.081) vs +0.3±1.3), insulin sensitivity (Matsuda +1.2±0.6 (p=0.044) vs +0.4±0.4) and resistance (HOMA IR 5.3±2.4 (p=0.034) vs +0.2±0.6), SBP (-19.1±9.4 (p=0.055) vs -1.3±4.2), and DBP (16.7±6.7 (p=0.022) vs +1.2±2.4), while non-severe obese showed no significant effects.

Conclusions: Severe obese might benefit even more from combined lifestyle intervention than non-severe obese older adults with DM2.

F4 Ratio between muscle fatigability and self-perceived tiredness could be an important parameter for characterizing frailty

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Doel: Muscle fatigability is an important indicator of reduced intrinsic capacity, and therefore potentially an early characteristic of frailty. Meanwhile, self-perceived fatigue can be considered as a symptom of reduced intrinsic capacity. The aim of this study was to investigate whether older adults with low muscle fatigability and high feelings of fatigue are more prone to frailty.

Methodologie: Four-hundred-and-four robust or pre-frail participants of the BUTTERFLY-study, a cohort study in well-functioning subjects aged 80+, were assessed for frailty score on Frailty Index of Fried (FFI), Groningen Frailty Indicator (GFI) and the Rockwood Index (RWI). Self-perceived fatigue was assessed by the Multidimensional Fatigue Index (MFI), muscle fatigability was measured with the Martin Vigorimeter, and expressed as grip work (GW = 0.75 * maximal grip strength * time for maximal grip strength to decrease to 50% during sustained contraction). Statistical analyses were corrected for age and sex.

Resultaten: Pre-frail subjects showed significantly worse muscle fatigability and feel more fatigued than their robust counterparts (p

Conclusie: The ratio between muscle fatigability and self-perceived fatigue seems an interesting indicator for early frailty

phenotypes, especially for physical frailty is the ratio an informative marker.

F5 Relationship between body composition and self-perceived fatigue in community-dwelling adults aged 80 and over

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Purpose: Body composition, self-perceived fatigue and muscle weakness are important characteristics of frailty at higher age. This study observed whether the interrelationship among self-perceived fatigue, muscle fatigability and body composition can be observed in community dwelling older adults aged 80 and over.

Methods: Four-hundred-fifty-three participants of the BUTTERFLY-study, a cohort study in well-functioning subjects aged 80+, were assessed for frailty status on Frailty Index of Fried (FFI) and the Groningen Frailty Indicator (GFI), grip strength, self-perceived fatigue (Multidimensional Fatigue Index MFI) and body composition (measured by DXA Dual-energy X-ray absorptiometry (DXA) and Bioelectric Impedance Analysis (BIA)).

Results: Pre-frail and frail older adults show significantly more fat mass %, lean mass, and higher levels of fatigue compared to their robust counterparts. More fat mass measured by the BIA and DXA are significantly related to higher levels of self-perceived fatigue in pre-frail older adults on the FFI. In frail older adults according to GFI, higher fat mass (both total body and more appendicular fat mass) was significantly related to higher levels of fatigue.

Conclusions: Robust older adults were less fatigued and showed lower fat mass compared to pre-frail ones. Since higher (appendicular) fat mass was related to higher levels of fatigue, metabolic and inflammatory processes are likely to be involved.

Medische abstracts

M1 A role for iNKT cells in sarcopenia

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Objective: Sarcopenia or the detrimental muscle ageing, represent an important unmet clinical health problem. Most pathophysiological studies suggest an effect of the immune system, primarily through catabolic cytokine productions such as IL-6. Also endoplasmic reticulum (ER) stress is considered to be an important pathway favouring muscle wasting. ER stress in turn plays an important role in innate-like T cells, particularly invariant natural killer T cells (iNKT cells), by controlling their cytokine production. As such we reasoned that iNKT cells may play a role in muscle homeostasis through their excessive cytokine production. Previous studies have highlighted the importance of these cells in a wide range of diseases such as cancer and metabolic disorders.

Methodology: We investigated the in vivo role of iNKT cells in muscle homeostasis by comparing wild-type (WT) versus iNKT cell deplete mice (J α 18 KO) for clinical, histological and gene expression differences in lower limb skeletal muscle.

Results: Interestingly, we found that iNKT cell depleted mice (J α 18 KO) had a lower relative muscle weight, i.e. a sarcopenic phenotype, compared to WT mice. This clinical sarcopenia was associated with a decrease in oxidative enzymatic activity (SDH histology). Moreover J α 18 KO mice showed a decreased transcription of genes involved in skeletal muscle growth and differentiation (follistatin and myogenin), sarcomere assembly (myosin-3) and neuromuscular junction function (neuronal acetylcholine receptor subunit alpha-1).

Conclusion: Taken together, our results suggest a role for iNKT cells in muscle wasting diseases like sarcopenia.

M2 Acute sarcopenia in hospitalized older persons: assessment through ultrasound

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Introduction: Sarcopenia is a condition with progressive and generalized loss of muscle mass and function. It is strongly correlated to negative health outcomes and higher mortality. Acute sarcopenia is the decline of muscle mass and function within 28 days following acute illness or hospitalization, sufficiently to meet the sarcopenia criteria.

Aim: This study tries to assess the effect of acute illness and hospitalization on muscle characteristics, as determined by muscle ultrasound.

Methods: A prospective, observational study has been performed at the geriatric wards of Middelheim hospital in Antwerp. Patients hospitalized for at least seven days were included. Ultrasound measurements include muscle thickness, cross sectional area, pennation angle and stiffness (through elastography). Other registered parameters include anthropometric data, comorbidities using the Cumulative Illness Rating Scale-Geriatric (CIRS-G), nutritional data (mini-nutritional assessment-short form, MNA-SF), hand grip strength, laboratory parameters and questionnaires (FRAIL and SARC-F). Measurements were done within 48 hours after admission and then every seven days until discharge.

Results: Results will be available by January 2020. The hypothesis of this study is a decrease in muscle mass, quality and function after longer days of hospitalization or illness. Furthermore, we expect associations with pre-existing conditions, nutritional status and reason of admission.

Conclusions: This study seeks to gain knowledge of the evolution of muscle quantity, quality and function after acute illnesses or hospitalization.

M3 Attenuation of chronic low-grade inflammation in sarcopenic older adults after 13 weeks of a nutritional supplement of Vitamin D and leucine-enriched

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Introduction: A chronic low-grade inflammatory profile (CLIP) is associated with sarcopenia in older adults. Protein and Vitamin (Vit)D have immune-modulatory potential, but evidence for effects of nutritional supplementation on CLIP is limited. The aim was to investigate whether 13 weeks of nutritional supplementation of VitD and leucine-enriched whey protein affected CLIP in subjects enrolled in the PROVIDE-study, as a secondary analysis.

Methods: Sarcopenic adults (low skeletal muscle mass) aged ≥ 65 years with mobility limitations (Short Physical Performance Battery 4-9) and a Body Mass Index of 20-30 Kg/m² were randomly allocated to 2 daily servings of active (n=137, including 20g of whey protein, 3g of leucine and 800IU VitD) or isocaloric control product (n=151) for a double-blind period of 13 weeks. At baseline and after 13 weeks, circulating Interleukin (IL)-8, IL-1 Receptor Antagonist (RA), soluble Tumor-Necrosis-Factor Receptor (sTNFR)1, IL-6, high-sensitivity C-Reactive Protein, pre-albumin and 25-hydroxyvitamin(OH)D were measured. Data-analysis included repeated measures Analysis of Covariance (corrected for dietary VitD-intake) and linear regression.

Results: IL-6 and IL-1Ra serum levels showed overall increases after 13 weeks (p=0.006 and p

Conclusions: Thirteen weeks of nutritional supplementation with VitD and leucine-enriched whey protein may attenuate the progression of CLIP in older sarcopenic persons with mobility limitations.

M4 Case report: cognitive impairment due to hypoglycemia in an older patient; a long-term complication following biliopancreatic diversion.

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A 74-year old female presented with weakness, recurrent falls, loss of weight and progressive cognitive deterioration. Her medical history included osteoporosis, herpes encephalitis (2010) and a biliopancreatic diversion (Scopinaro surgery) in 1995. There was a fluctuating level of consciousness. Her MMSE score was 13/30. Cerebral imaging showed known lesions following herpetic encephalitis, without major atrophy. Biochemical screening showed severe hypoalbuminemia (16g/dl), low iron storage and deficits in zinc, vitamin A and E. There was no proteinuria. Blood glucose level at presentation was normal, but during observation recurring hypoglycemia (glycogen depletion caused by starvation and dumping syndrome) was seen. The presence of neuroglycopenia probably accounted for the clinical picture.

Given malabsorption, total parenteral nutrition was started. This showed both a marked improvement in the cognitive functioning (MMSE 28/30 after 4 weeks) and an improvement in daily functioning. Consequently, albumin levels increased and there was a weight gain of 5kg.

Long term effects of bariatric surgery in older patients remain relatively unknown. As this case shows, deficiencies and malnutrition after bariatric surgery (in this case Scopinaro surgery) can cause major problems, including cognitive impairment. Atypical presentations are more common in older patients, and a low index of suspicion for evaluating underlying deficiencies

is warranted in these patients. As bariatric surgery is performed more frequently, a larger proportion of patients will present with long-term complications, especially if oral intake decreases due to other causes.

M5 Case Report: Remitting Seronegative Symmetrical Synovitis with Pitting Edema (RS3PE) in an old male patient.

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A 98-year-old man presented himself with rapidly progressing painful, swollen fingers of both hands and pitting edema of the right lower limb. After exclusion of common causes, Remitting Seronegative Symmetrical Synovitis with Pitting Edema (RS3PE) syndrome was diagnosed. Treatment with 8 mg Methylprednisolon daily for 4 weeks led to significant recovery.

RS3PE mainly affects older people (>60 years of age) and can resemble other forms of polyarthritis, Characteristic clinical features are painful edema of both hands, sudden onset, RF negativity, and radiological absence of articular destruction or alteration. As our case report demonstrates, body parts can be affected asymmetrically. RSP3PE responds well to steroid treatment. In some cases RS3PE occurs as a paraneoplastic syndrome, as it has been reported with various carcinomas (gastric, endometrial, pancreatic). In this patient we found no evidence for a neoplastic process.

M6 Changes in the gene expression of inflammation-related genes in PBMC of older women after three months of strength training

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Purpose: To investigate the changes of inflammation-related gene-expression in PBMC by strength training at different modalities.

Methods: Fourteen women aged ≥ 65 years were randomized into 3 months of either 3x/week intensive strength training (IST: 3x10rep at 80% 1RM), strength endurance training (SET: 2x30reps at 40% 1RM) or control (CON: 3x30sec stretching). RNA was extracted from isolated PBMC before and after 3 months training. Targeted RNA sequencing including 407 inflammation-related genes was performed and differentially expressed genes (fold change ≤ 0.5 or ≥ 1.5) were identified. Pathway analysis was performed using IPA.

Results: 85 genes, mostly pro-inflammatory (n=56), showed significant exercise-induced changes in expression. IST and SET altered 9 genes in similar direction (e.g. MXRA5 FC IST=23.54 and FC SET=6.78) whereas 26 genes were altered in opposite direction (e.g. IL1A FC IST=0.15 and FC SET=2.27). Compared to CON, IST induced changes in expression of 5 genes in the same direction, and for 15 genes in the SET group (e.g. ILTRAPL2 FC IST=20.52, FC SET=6.94 and FC CON=5.54). Likewise, 13 and 7 genes were oppositely expressed for respectively IST and SET compared to CON (e.g. MXRA5 FC CON=0.29). For IST and SET, pro-inflammatory pathways were inhibited such as dendritic cell maturation pathway and sirtuin pathway. None of the pathways overlapped between IST and SET. LXR/RXR and TREM1 pathways were enriched oppositely in both training groups. Conclusion: Three months strength training at high and moderate external load can both induce changes in CLIP-related gene expression in PBMC, but by affecting different genes and related pathways.

M7 Clinical outcomes of rate vs rhythm control for atrial fibrillation in older persons: a systematic review and meta-analysis

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Background and Objectives: Atrial fibrillation (AF) is highly prevalent in older adults and has been associated with increased morbidity and mortality. To reduce this AF-related morbidity in older adults, rhythm control by antiarrhythmic drugs (AAD) is regularly used, assuming that increasing time in sinus rhythm reduces AF-related morbidity. It remains unclear however whether AAD can improve clinical outcome in older adults due to their increased risk for adverse drug events, compared to rate control. Hence, the aim of this study was to determine the impact of rhythm control versus rate control on clinical outcomes in older adults with AF.

Design and Methods: We conducted a systematic review and meta-analysis, targeting patients, aged 65 years and older, with AF and using rate or rhythm controlling drugs. Articles were included if the following criteria were met: enrollment of older patients (sample mean 75 years or older) with AF, a comparison of pharmacological rate versus rhythm control and reporting of all-cause mortality, cardiovascular mortality or ischemic stroke.

Results: Five observational studies were included. A total of 86926 AF patients with a mean age ranging from 75 years to 92 years were studied. No differences were found between rhythm and rate control for all-cause mortality (odds ratio (OR) = 1.11, 95% confidence interval (CI): 0.78 – 1.59, $I^2 = 79.6\%$, $n = 28526$, 4 studies) and cardiovascular mortality (OR 1.09, 95% CI: 0.81 – 1.47, $I^2 = 0\%$, $n = 2292$, 2 studies). There were fewer strokes in favor of rhythm control (OR = 0.86, 95% CI: 0.80 – 0.93, $I^2 = 0\%$, $n = 59496$), albeit mainly determined by one study.

Conclusion: All collected data was observational, which precludes making strong recommendations. Furthermore, all confidence intervals were wide, adding to the uncertainty of the observed effects. We therefore conclude that there is insufficient evidence to recommend rhythm or rate control as first line therapy of AF in older adults. As AF is particularly prevalent in older persons, more randomized controlled trials are needed in these patients.

M9 Effects of physical exercise on markers of cellular immunosenescence: an updated systematic review

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Purpose: Immunosenescence (IS) is a dysregulation of the immune system occurring with aging that leads to an increased susceptibility to auto-immunity, infections and cancer. It is assumed that physical exercise (PE) may counteract IS.

Unfortunately, no evidence for the effect of PE on senescent immune cells in the aged was available yet at the time of a review published in 2017 (*Calcif Tissue Int* 2017;100(2):193-215). We aimed to update this review since exercise immunology is a rapidly growing research domain and it is very likely that new evidence is now available in literature.

Methods: Literature databases PubMed and Web-of-Science were searched for relevant articles published since 2016 using identical search strategy and inclusion criteria as the original review, resulting in 804 and 1542 hits, respectively. Studies in both animals and humans were included.

Results: PE was shown to reduce senescent-prone T-lymphocytes whereas habitual physical activity showed no effect.

Noteworthy was the higher number of studies describing the effect of PE on regulatory T-cells, however, some reporting PE-induced up-regulation and others down-regulation. Additionally, new studies were found confirming the increase of naïve and memory CD4+ T-lymphocytes and CD8+ T-lymphocytes and also dendritic cells after PE. PE-effects on NK cell counts remains inconclusive.

Conclusions: Recently published data show that PE can reduce senescent, and increase memory and naïve T-lymphocytes counts in older adults. Effects on NK-cells remain unclear. Our literature update provides new evidence to prescribe PE to counter IS in the aged.

M11 Exercise Therapy for knee osteoarthritis pain: How does it work? – Protocol for a randomized controlled trial

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Background: Previous research demonstrated that exercise-induced anti-inflammation and endogenous analgesia are most promising pathways to reduce knee-osteoarthritis pain (KOAP). This study aims to investigate (1) the mediating role of

inflammation and/or endogenous analgesia in the effect of exercise therapy (ET) (muscle strengthening training (MST); behavioral graded activity (BGA)) on KOAP and (2) whether KOAP changes are associated with acute treatment effects. Methodology: A randomized-controlled trial will be conducted in UZ Brussel and AZ St-Dimpna Geel. KOAP patients(n=90) will be randomly assigned to the MST, BGA, or control group for a three-month intervention and twelve-month follow-up. MST involves leg muscle-strengthening exercises. BGA includes behavioral therapy combined with ET to gradually increase patients' activity level. Control patients maintain their lifestyles.

The primary outcome is pain, evaluated by the Knee injury and Osteoarthritis Outcome Score. Secondary outcomes are pain subtypes, functionality in daily living, adherence/compliance, and medical consumption. Mediation analysis will be performed to evaluate the potential mediating role of (acute)inflammation and endogenous analgesia. The former will be tested by a blood-based biomarkerpanel for chronic-low-graded-inflammatory profile, the latter will be investigated by pain physiological tests. Assessments will be performed at baseline, at week 2-3 and week 10-11 (pre- and post-treatment for the acute effects),and 48h, 13 and 52 weeks after the last intervention.

Conclusion: This will be the first trial investigating (acute) inflammation and endogenous analgesia as potential mediators in the effect of ET on KOAP. By unravelling underlying mechanisms of ET in KOAP, treatment optimization can occur by tailoring ET towards acute treatment effects.

M12 Exploring the association between anticholinergic exposure and anticholinergic burden in a cohort of community-dwelling older adults

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Background: Anticholinergic medication use is high in older adults, but there is little evidence on the relationship between anticholinergic risk scales and anticholinergic side-effects. The aim is to explore the relationship between anticholinergic exposure (using the MARANTE scale) and anticholinergic burden in a cohort of community-dwelling older adults (65 years or older).

Methods: Participants' medications were entered and coded into the Anatomic Therapeutic Chemical (ATC) classification. The anticholinergic exposure was quantified using the MARANTE-scale (Muscarinic Acetylcholinergic Receptor ANTagonist Exposure). Anticholinergic burden was assessed through the product of frequency (1 – 4, daily to monthly) and severity (1 – 4, slight to severe impact) of common anticholinergic symptoms.

Results: Participants' mean age was 75.0 years (range 65.0–90.8), with 65.5% female. The mean number of chronic medications was 5.1 (range 0–14). Anticholinergic medication use was present in 30.0%. The mean MARANTE score was 0.6 (range 0 – 4.5).

Most prevalent anticholinergic symptoms include dry mouth (37.3%), agitation (32.7%) and pruritus (31.8%). There was a significant positive correlation between MARANTE scores and the number of symptoms (Rs 0.27, p<0.001).

Univariate analysis showed increased risks for a higher burden of dry mouth (Odds Ratio 8.64 95%CI 2.53–29.54), pruritus (OR 5.75 95%CI 1.62–20.40), drowsiness (OR 3.61 95%CI 1.09–12.02) and constipation (OR 6.17 95%CI, 1.11–34.18) in those with a high anticholinergic exposure.

Conclusion: Anticholinergic medication use in community-dwelling older adults was common. High anticholinergic exposure was linked with high anticholinergic burden, with predominant increased risks for dry mouth, pruritus, drowsiness and constipation.

M13 Frailty, clinical, and psychosocial status among old caregivers in Belgium : a case-control study.

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Aim : We compared the frailty, the clinical and psychosocial status of old caregivers with controls (>65).

We analyzed the association of frailty status according to Fried's criteria and Rockwood FI with the characteristics of caregivers

and controls.

Method : Eighty-six caregivers and 105 matched controls were included. Frailty was assessed by the Frailty Phenotype (Fried) and the 40-deficit Frailty Index (FI). Social data, SF-12, bADL, iADL, GDS, MNA-SF, Mini-Cog, CIRS-G, Zarit, gait speed, handgrip strength were collected.

Results : The prevalence of frailty was similar in caregivers and controls with the FI ($p=0.479$) but higher with the Fried's criteria ($p=0.001$).

Compared with the control group, caregiving was associated with a lower mental quality of life (p

In multiple regression, the Fried's criteria of caregivers adjusted for age, gender, marital status and incomes were associated with age, grip strength, physical quality of life, gait speed and nutritional status ($R^2=0.79-p<0.0001$).

FI was associated with depression, use of antidepressants, physical quality of life, cognitive status and ADL ($R^2=0.85-p<0.0001$).

Conclusions : The prevalence of frailty is similar in caregivers and controls when using FI, but higher in caregivers with Fried's criteria.

Compared with controls, caregiving is associated with poorer health and psychological issues. While Fried's criteria focus on physical frailty, FI is more related with geriatric syndromes like depression, cognitive disorders, loss of autonomy, and quality of life.

M14 Heeft sarcopenie een invloed op de mortaliteit na transcatheter aortic valve implantation (TAVI) chirurgie?

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Doel: Bij patiënten met een hoog perioperatief risico is TAVI een succesvol alternatief voor risicovolle cardiochirurgie voor de behandeling van aortaklepstenose. Uit studies blijkt dat comprehensive geriatric assessment (CGA) gecorreleerd is met postoperatieve mortaliteit na 1 jaar. De nadruk wordt hierbij vaak op frailty gelegd. Wij willen onderzoeken of de aanwezigheid van sarcopenie een invloed heeft op de mortaliteit na TAVI.

Methodologie: Alle patiënten verwezen voor TAVI van juli 2015 tot november 2018, kregen een geriatrische preoperatieve screening. Sarcopenie werd bepaald volgens de EWGSOP criteria uit 2010 en 2019: handkrijpkracht (cut-off: mannen 26kg en vrouwen 17kg) als parameter voor spiersterkte en gangsnelheid (cut-off 0.8 m/s) als parameter voor fysieke performance. We berekenden de correlatie tussen sarcopenie en mortaliteit na 1 jaar met Kaplan-Meieranalyse.

Resultaten: De cohorte telde 58 patiënten (55.2% vrouwen) met gemiddelde leeftijd 85.9 jaar, gemiddelde handkrijpkracht 21.5 kg (vrouwen 16.8 kg, mannen 27.4 kg) en gemiddelde gangsnelheid 0.93 m/s. Van het totaal waren 17.2% sarcopenen, 39.7% presarcopenen en 43.1% niet sarcopenen. Na 1 jaar was de mortaliteit volgens Kaplan-Meieranalyse 40% in de sarcopenen, 8.7% in de presarcopenen en 0% in de niet-sarcopenen groep (log-rank $p = 0.001$).

Conclusie: Sarcopenie bij preTAVI patiënten is geassocieerd met verhoogde mortaliteit na 1 jaar. Sarcopenie is mogelijk een goed alternatief voor frailty omdat de bepaling ervan eenduidiger is op basis van de EWGSOP criteria. CGA dient zo vroeg mogelijk in de besluitvorming te gebeuren. Verder onderzoek naar de correlatie tussen sarcopenie en postoperatieve mortaliteit is noodzakelijk.

M15 Impact of malnutrition using GLIM criteria on mortality in nursing home residents

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Introduction: Recently GLIM criteria were proposed as a consensus for the diagnosis of malnutrition. Hereby three phenotypic (non-volitional weight loss, low body mass index, reduced muscle mass) and two etiologic criteria (reduced food intake/assimilation, disease burden/inflammatory condition) were stated. Diagnosis requires minimum one phenotypic and one etiologic criterium.

Aim: This study aims to assess the correlation between malnutrition using the GLIM criteria and mortality.

Methods: A longitudinal cohort study following nursing home residents aged ≥ 80 years was performed in 52 nursing homes in

Belgium in 2007. Anthropometric data, body composition (BIA) and nutritional status (mini-nutritional assessment-short form, MNA-SF) were noted. Patients with inflammatory conditions were excluded. Mortality was noted during nine years. This study is a post-hoc analysis investigating the effect of malnutrition according to GLIM criteria on mortality.

Results: In the post-hoc analysis 321 patients were included, of which 91 were males. Mean age at the start of the study was 84.3±7.3 years. Mean BMI was 27.9±5.3 kg/m². 15 patients met the GLIM criteria (4.7%). Diagnosis of malnutrition through positive GLIM criteria was significantly correlated to mortality with an odds ratio of 1.98 (range 1.11-3.53). Also positive score on the phenotypic criteria, age and BMI were significantly correlated with mortality.

Conclusion: Malnutrition is a known risk factor for mortality. This study suggests the GLIM criteria are a useful measure to evaluate the risk of mortality in older persons.

M16 Improving care in the geriatrics department through a self-report system of quality indicators

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Aim: to implement a physician self-report system of quality indicators in order to follow up, evaluate and improve the quality of care in the geriatrics department

Methods: this study took place at Jessa hospital, a community hospital with 155 acute geriatric care beds. The quality indicators were finalized in March 2019 using a scoping review and physician feedback on usability and feasibility. The geriatrician can access the report system 'MIR' through the medical record. Registrations from March 1 until October 31 2019 were included

Results: Registration was performed in 17,2% of discharged patients (n=464). Only 5 out of 8 geriatricians performed registration with 66,8% being the best performance (55,6% of all registrations). The majority of patients were female (60,8%) admitted through the emergency department (77,2%). In 23,3% of patients we noted a complication, of which pneumonia (28,7%), urinary tract infection (24,1%) and decubitus (9,3%) were the most prevalent. Only 1,1% of patients died unexpectedly and 1,3% of patients were transferred to the ICU unexpectedly. The primary discharge destination is home (48,1%) or elderly home (34,1%). The 30-day readmission rate was 12,7%. Registration of the MIR is ongoing and updated data will be presented at the conference.

Conclusion: despite suboptimal registration this system generates data leading to quality improvement initiatives and fueling discussions – such as the implementation of an early warning system for the geriatrics department – with the hospital board. If implemented in other hospitals it would allow for a benchmark for good-practice geriatric care

M17 Inappropriate dosing of direct oral anticoagulants and plasma levels in older patients with non valvular atrial fibrillation

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Aim: To evaluate the association of appropriateness of Direct Oral Anticoagulants (DOAC) dosing and plasma drug levels in older patients with Non Valvular Atrial Fibrillation (NVAF).

Methods : Retrospective analysis of electronic medical records of patients 75 years+ treated with Apixaban, Rivaroxaban or Dabigatran for stroke prevention in NVAF with blood sampling between 2012 and 2018 patients. Following data were extracted: age, sex, weight, height, body mass index, DOAC use (drug, dosing, frequency of intake), DOAC blood level at peak or through, hemogram, renal function, CHARLSON comorbidity index, CHADS and HEMMORR²HAGES.

Results : We included 80 patients, mean age of 80.88 years, 33 treated with apixaban, 18 with dabigatran and 29 with Rivaroxaban. The prescription was appropriate for 54 patients (67.5%). Out of the 26 patients with inappropriate prescription, 18 (69%) were prescribed an inappropriate low dose.

In total, 152 DOAC measurements were performed (93 peak, 59 through). DOAC levels were above the expected range in peak and through in 37% and 18% of patients treated with the appropriate dose compared to 8% and 14% in those treated with inappropriately low dose; under the expected range in 8% and 13% compared to 16% and 7% and in the expected range

in 55% and 69% compared to 76 and 79%.

Conclusions : DOAC are frequently prescribed in an inappropriate low dose. However, in those treated with appropriate dosing, a high percentage of patients had DOAC levels above the expected rang.

M18 Influence of the new EWGSOP2 consensus on research with presarcopenic and sarcopenic older persons

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Purpose: To determine the effect of the revised EWGSOP2 criteria on sarcopenia classification of participants in the Exercise and Nutrition for Healthy Ageing (ENHANce) randomized controlled trial (RCT). In 2010, the European Working Group on Sarcopenia in Older People (EWGSOP) published a consensus on definition and diagnosis of sarcopenia (EWGSOP1). Recently a revised consensus was published, proposing muscle strength as key characteristic of sarcopenia (EWGSOP2).

Methods: ENHANce is an ongoing 5-armed RCT (ClinicalTrials.gov:NCT03649698) that examines the effect of an individualized nutritional intervention (protein supplementation and/or omega-3 supplementation) combined with a physical exercise program in community-dwelling (pre)sarcopenic elderly aged ≥ 65 years. EWGSOP1 (pre)sarcopenic elderly are eligible for inclusion. EWGSOP2 criteria were applied to evaluate whether the new definition influences the classification in sarcopenia stage.

Results: Up to July 2019, 40 subjects (mean age 75y) are randomized in ENHANce. Of these, 34 are presarcopenic, four sarcopenic and two severe sarcopenic according to EWGSOP1. According to EWGSOP2, 26 persons have no sarcopenia, none probable, 11 confirmed and three severe sarcopenia. Nine presarcopenic EWGSOP1 subjects became EWGSOP2 sarcopenic. Two EWGSOP1 sarcopenic persons were considered severe sarcopenic in EWGSOP2. One EWGSOP1 severe sarcopenic subject was no longer classified in EWGSOP2.

Conclusion: Most EWGSOP1 sarcopenic and severe sarcopenic subjects are still classified in EWGSOP2. However, most presarcopenic subjects are no longer classified in EWGSOP2. Although EWGSOP2 facilitates diagnosis of sarcopenia in clinical practice, a consensus definition of preclinical or early stages of sarcopenia would be welcomed to address the needs of these elderly and to align related ongoing and future research.

M19 Introduction of the Orthogeriatric co-management model increases the quality of care –

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Background and purpose – Older patients with musculoskeletal or osteoarticular problems will be admitted at an orthopedic ward and treated by surgeons. These patients suffer from comorbidities requiring geriatric management. Here, we compared orthogeriatric co-management (OG-CM) to traditional orthopedic care in a retrospective study.

Patients and methods – Two patients groups were compared during two time periods: Group 1 consisted of 119 older patients, admitted at an orthopedic ward, treated with conventional geriatric care on demand (before OG-CM; October 1 December 31, 2013). Group 2 consisted of 132 older patients, w admitted after the implementation of the OG-CM model (after OG-CM; October 1 – December 31, 2014). Outcomes measured were: quality of care outcome, mortality, and costs.

Results – After the introduction of OG-CM, the number of diagnoses increased ($P = 0.011$) adjusting for sex, age, length of stay (LOS), urgency and getting surgery (yes/no). However, this did not lead to a significant higher severity of illness (SOI). The number of readmissions within a year were significantly lower after OG-CM (0.31 per patient) compared to before OG CM (0.89 per patient) ($P < 0.001$). No significant difference in in-house and reported mortality after 3 months was observed. Costs increased, but no significant differences were found.

Interpretation – The OG-CM model demonstrated an increase in quality of care. This was indicated by an increased number of medical diagnoses, having less readmissions, without affecting the mortality rates and the LOS. Future randomized multi-

centered studies are required to explore causal relationships.

M20 Is 4m gangsnelheid een accuraat prognostisch instrument om de eenjaarsoverleving in te schatten bij de gehospitaliseerde oudere patiënt?

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Doel: Tijdig opstarten van palliatieve zorgen bij de oudere fraile patiënt blijft een uitdaging. Er bestaan prognostische schalen om patiënten te identificeren die een hoger risico hebben op functionaliteitsverlies. Instrumenten specifiek voor de inschatting van mortaliteit op korte termijn bij de oudere patiënt zijn zeldzaam.

Methodologie: In deze prospectieve studie werden patiënten geïncludeerd van 75 jaar en ouder op cardiologie en geriatrie. De 4m gangsnelheid werd afgenomen zo dicht mogelijk bij de ontslagdatum. ROC curves werden gebruikt om de beste afkapwaarde van gangsnelheid voor 1-jaars mortaliteit te bepalen. Tijdsgerelateerde analyses werden uitgevoerd met Cox regressie.

Resultaten: Op geriatrie (n=60) waren patiënten ouder en meer kwetsbaar (bepaald door Katz en iADL) in vergelijking met patiënten op cardiologie (n=82); 1-jaars mortaliteit was respectievelijk 27% en 15% (p=0.069). AUC op geriatrie was 0.748 (p = 0.006). De beste afkapwaarde was 0.42m/s met een sensitiviteit en specificiteit van 0.857 en 0.643. Op cardiologie was de AUC 0.560 (p = 0.563) met beste afkapwaarde 0.75m/s met sensitiviteit en specificiteit van 0.778 en 0.356. Op geriatrie sterven trage stappers (cutt-off 0.42m/s) sneller dan snellere stappers (HR 7.456, p=0.011) na correctie voor leeftijd en geslacht. Op cardiologie was er geen significant verband tussen gangsnelheid en tijd tot sterfte.

Conclusie: 4m gangsnelheid kan een waardevol instrument zijn op geriatrie om patiënten te identificeren die een hoog risico hebben om binnen het jaar te overlijden. De doodsoorzaak op cardiologie is mogelijk minder gerelateerd met fysieke frailty dan op geriatrie. Verder onderzoek is noodzakelijk om dit uit te klaren.

M21 Is SPICT an accurate tool to identify older hospitalized patients at risk for one-year mortality?

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Purpose: The Supportive and Palliative Care Indicators Tool (SPICT) was developed for more timely identification of patients with palliative care needs. However, the tool has not been validated for predicting one-year mortality in the older patient.

Methods: A prospective observational study included patients 75 years and older admitted at the acute geriatric unit (AGU) and cardiology unit in 4 hospitals. To assess diagnostic accuracy to predict one-year mortality, summary ROC curves were constructed and pooled average sensitivity, specificity and AUC were calculated. Meta-regression was used to compare between wards. Cox regression was used for time-dependent analysis.

Results: Of 209 included patients on AGU and 249 on cardiology with a one-year mortality of respectively 24% and 22% (p=0.488); 58% versus 40% were SPICT identified (p

Conclusions: SPICT may be used as an identification tool for older patients at higher risk for dying within a one-year time-frame. However, SPICT performs better as a prognostic tool for one-year mortality in older patients admitted at the acute geriatric ward versus the cardiology ward.

M22 Lyme neuroborreliose als zeldzame oorzaak van rugpijn in de geriatrie

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Doel: Aan de hand van een gevalsbespreking van een patiënt die zich presenteert met rugpijn, geven we een overzicht van de huidige richtlijnen betreffende de diagnostische evaluatie en behandeling van Lyme neuroborreliose (LNB).

Methodologie: Gevalsbespreking.

Resultaten: Een 87-jarige man presenteert zich op spoedgevallen met progressieve, laag thoracale rugpijn sinds een vijftal dagen zonder radiculair uitstralingspatroon met nachtelijke pijnopstoten. Tijdens opname op de dienst geriatrie ontwikkelt de patiënt een progressieve bilaterale facialisparesis. Aanvullende lumbaal punctie toont een verhoogde pleiocytose, eiwit- en lactaatstijging met normale glycorraghie. Gezien het vermoeden van Lyme neuroborreliose werd gestart met ceftriaxone IV 2g/d gedurende 21 dagen. Serologie voor *Borrelia* werd positief in het serum en lumbaal vocht met een positieve antilichamen index. Daarnaast was de biomarker CXCL13 sterk positief. Hemoculturen en culturen van lumbaal vocht bleven negatief.

De diagnose van LNB wordt gesteld op basis van de combinatie van neurologisch verdachte symptomen, de antilichamen index (ratio van *Borrelia burgdorferi* specifieke antilichamen in het cerebrospinaal vocht en in het serum) en pleiocytose in het cerebrospinaal vocht.

Behandelig met antibiotica is meestal effectief met snelle resolutie van de symptomen.

Conclusie: Door zijn variabele klinische presentatie is het stellen van de diagnose LNB niet altijd even gemakkelijk. Sinds de eerste beschrijving van LNB 30 jaar geleden is er een sterke vooruitgang geboekt op gebied van diagnostische mogelijkheden. Het tijdig starten van antibiotische behandeling is van belang om de uitkomst te verbeteren en restletsels te vermijden. Deze casus toont aan dat bij onverklaarde rugpijn eveneens LNB in de differentieel diagnostiek dient opgenomen te worden.

M23 Oudere patiënten met kanker: impact van spiermassa en graad van myosteatose van de psoaspier .

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Doel: Hoewel een geriatrische evaluatie meer gebruikt wordt bij het oncologisch beleid bij ouderen is de bepaling van spiermassa hierbij niet opgenomen. Deze studie evalueert of de spiermassa en de graad van myosteatose van de psoaspier een voorspellende waarde heeft op de mortaliteit bij oudere met kanker.

Methodologie: Er werd een cohort van kankerpatiënten, 70+, gescreend door middel van een comprehensive geriatric assessment. Indien er een CT abdomen was genomen, werd ter hoogte van L3 de oppervlakte van de musculus psoas (CSA, als maat voor de spiermassa) en de pixeldensiteit (Hounsfield units, HU, als maat voor vervetting) bepaald. Hard eindpunt was mortaliteit. Correlatie werd bepaald tussen CSA en HU.

Resultaten: Honderd drieëntachtig patiënten werden geïncludeerd (86 mannen en 97 vrouwen). Honderdtwintig patiënten (66%) zijn overleden. Gemiddelde leeftijd bij inclusie was 80 jaar (spreiding 70-94 jaar). Gemiddelde overleving was 606 dagen (spreiding 1-2023 dagen). Er was een significante positieve correlatie tussen CSA en HU (PCC=0.196) bij diagnose en bij follow-up (PCC=0.257). Bij mannen was er een significante daling van CSA (p=0.008) en HU (p=0.004). In multivariaat analyse was CSA gecorreleerd met een lagere mortaliteit met een OR van 0.657 (CI=0.457-0.944, p=0.023). Er werd geen correlatie gevonden tussen HU en mortaliteit.

Conclusie: De dwarsdoorsnede van de psoaspier was positief gecorreleerd met de graad van vervetting. De massa en het vetgehalte van de psoaspier dalen tijdens behandeling. Een grotere dwarsdoorsnede van de psoaspier is prognostisch voor een lagere mortaliteit.

M24 Palliative Sedation (A Horizon2020 project)

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Introduction: Symptoms like pain, delirium, and dyspnea are often present in patients nearing death and can cause a lot of distress. In some cases these symptoms become refractory, which means that standard treatment options are exhausted or because they fail, the results are not available in due time, or the risk-benefit ratio is no longer acceptable to the patient. In

such cases, palliative sedation can be considered as one of the last resort options. During the past ten years guidelines for palliative sedation have been increasingly developed in order to guide medically and ethically acceptable practices for palliative sedation. However, The European Association for Palliative Care (EAPC) framework for palliative sedation only reached consensus after much discussion and hasn't been updated since 2009. Until now, guidelines for palliative sedation are mostly based on expert consensus because data from prospective clinical studies are scarce.

Methods: Therefore, the main goals of the Horizon2020 project Palliative Sedation are:

- 1) To evidence and investigate the practice of proportional palliative sedation using: An observational clinical study and a multiple case study in five European countries;
- 2) To investigate the use of moral case deliberation for palliative sedation
- 3) To revise the 2009 EAPC recommended framework for palliative sedation
- 4) To increase public and professional understanding of palliative sedation by delivery of: an online education programme.

Within this Horizon2020 project, much attention will be given to the cultural differences of the various countries, to take these into account during the revision of the EAPC framework.

Results: an updated white paper of the EAPC, concerning palliative sedation based on the prospective multi-center research.

M25 Polycythemia induced Budd-Chiari syndrome in a nonagenarian: a case report.

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Aim: To report a case of a 94 year old patient with a subacute Budd-Chiari syndrome (BCS) caused by a novel diagnosis of polycythemia vera. BCS is a rare disease mostly seen in young or middle-aged patients. As far as we know, this is the second publication of BCS in a nonagenarian.

Result/Case report: Our patient presented with abdominal distention, hepatomegaly and ascites. Laboratory data indicated polycythemia and mainly cholestatic disturbed liver tests without signs of liver failure. CT abdomen was diagnostic for subacute BCS. JAK2 V617F mutation was found. Anticoagulation and low dose acetylsalicylic acid were started. Phlebotomies were performed. Supportive care with diuretics and paracentesis were also initiated based on patients complaints.

Conclusion: BCS is characterized by venous outflow obstruction at any level from the small hepatic veins to the junction of the inferior vena cava and the right atrium. Its clinical presentation is variable from fulminant liver failure to an insidious chronic form with symptoms of cirrhosis at diagnosis. In western countries mainly primary BCS is seen which is caused by an endoluminal lesion. The main cause of primary BCS is a hypercoagulable state in which myeloproliferative neoplasms (MPN) are the most common. Even with no apparent changes in peripheral blood suspicion for associated MPN should be high and testing should be performed since portal hypertension may mask the increase in blood cell counts.

M26 Prognostische waarde van de Surprise Question bij de gehospitaliseerde oudere patiënt

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Doel: Het bepalen van de prognostische waarde voor éénjaars mortaliteit van de Surprise Question (SQ) bij de oudere gehospitaliseerde patiënt.

Methodologie: : Multicenter prospectieve studie met 379 patiënten, 75 jaar of ouder, gehospitaliseerd op de geriatrie en cardiologische afdeling in 4 ziekenhuizen. De SQ ("zou u verrast zijn moest deze patiënt overlijden binnen 6 tot 12 maanden?")

werd beantwoord door de behandelend arts. De éénjaars mortaliteit werd bekomen na telefonisch contact met patiënt of familie één jaar later. Met logistische regressie werden geassocieerde factoren met SQ gezocht.

Resultaten: : éénjaars mortaliteit was respectievelijk 24,9% en 20,2% voor de patiënten gehospitaliseerd op de dienst geriatrie en cardiologie ($p=0.319$). SQ was positief (arts zou niet verrast zijn bij overlijden) bij 66/190 en 63/189 patiënten voor respectievelijk geriatrie en cardiologie ($p=0.773$). Parameters geassocieerd met een positieve SQ bleken ernst van comorbiditeit, functionaliteit en palliatieve zorgindicatoren waaronder significant gewichtsverlies, refractaire symptomen en vraag naar palliatieve zorgen door patiënt of familie. Er is geen verschil in sensitiviteit en specificiteit bij de sample op geriatrie versus op cardiologie, respectievelijk 64% en 77% (AUC 0.635) en 63% en 76% (AUC 0.758). Bij een positieve Surprise Question is er een significant sneller overlijden (HR 5.425 (95% B.I. 3.332-8.834), $p=0.000$) en dit onafhankelijk van de dienst. Conclusie: De Surprise Question blijkt zowel voor de patiënt gehospitaliseerd op geriatrie als cardiologie een matig accuraat instrument om de éénjaars-mortaliteit te bepalen.

M27 Quorum Sensing Molecules as a novel player in sarcopenia

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Objective: An accelerated muscle decline with aging, called sarcopenia, is an important clinical problem because of its increasing prevalence (global human aging) and its association with physical disability, poor quality of life and all-cause mortality. Unfortunately, until now, a lack of pathophysiological knowledge hampers a targeted diagnosis and therapy of this geriatric syndrome. Recent studies suggest a role for the microbes in the gut, the so-called microbiome, in the pathogenesis of sarcopenia, without the mediator of this gut-muscle axis being identified. We hypothesised that quorum sensing molecules (QSM) might be one of these mediators. QSM are bacterial products, constitutively produced by living bacteria, and increased in bacterial "stress" conditions. Our objective was to investigate the effects of QSM on host muscle homeostasis.

Methods: Both C2C12 muscle cell in vitro and *C. elegans* in vivo experiments were conducted. In vitro read-outs were focused on the main biological systems disturbed in sarcopenia: viability, differentiation, inflammation, mitochondrial changes and protein degradation. In vivo read-outs were mobility-associated variables.

Results: 30 QSM of the 75 QSM screened showed effects on C2C12 cells. Most of these QSM are known to be produced by species of the genus *Staphylococcus*, *Streptococcus*, *Enterococcus*, *Bacillus*, *Lactobacillus* or *Escherichia*. *C. elegans* experiments on selected QSM confirmed the in vivo relevance of these findings.

Conclusion: These findings are exciting as they provide the first evidence that QSM produced by gut bacteria play a role in the gut-muscle axis, opening a new diagnostic and therapeutic dimension in the complex syndrome of sarcopenia.

M28 Rebound-Associated Vertebral Fractures After Stopping Denosumab

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Purpose: Denosumab is a potent reversible antiresorptive agent, which increases bone mineral density (BMD) and reduces the risk of vertebral, non-vertebral and hip fractures in postmenopausal women with osteoporosis. After discontinuation of denosumab, bone turnover markers (BTMs) transiently rebound above baseline levels. BMD and fracture risk return to baseline, but recent clinical trial data and case reports suggest a small but significant transiently increased risk for multiple vertebral fractures upon denosumab discontinuation, so-called rebound-associated vertebral fractures (RAVFs). The aim of this study is to describe cases of RAVFs to increase awareness of this phenomenon.

Methods: We searched for recent cases of RAVFs in the records of the Center for Metabolic Bone Diseases (UZ Leuven), presented between October 1th, 2018 and October 1th, 2019.

Results: Three cases of RAVFs after discontinuation of long-term denosumab treatment were found. All were bisphosphonate-naïve postmenopausal women presenting with back pain 8-10 months after the last denosumab injection. All suffered

multiple vertebral fractures (range 2-8 vertebrae fractured). One patient underwent vertebroplasty and sustained additional vertebral fractures. In two of the patients we have data on BTMs at the moment of presentation with RAVFs, all showing elevated BTMs.

Conclusions: Based on current knowledge, it is recommended not to stop denosumab without considering alternative treatments in order to prevent rapid BMD loss and a potential rebound in vertebral fracture risk. There is an urgent need to identify patient groups at risk of RAVFs and to design optimal management protocols for denosumab discontinuation.

M30 The effect of physical exercise on the immune cell function in humans

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Background: Ageing is accompanied by a chronic low-grade inflammatory profile (CLIP). Physical exercise is the best non-pharmacological mean to decrease CLIP. Furthermore, people who perform exercise show decreased susceptibility to infections, improved wound healing, and effectiveness of vaccinations. However, the underlying mechanisms are not yet understood and might involve changes in immune cell function. In this review, our aim is to provide a systematic analysis of the literature regarding the impact of physical exercise on immune cell function. Furthermore, the influence of exercise on immune cell response after a stress challenge will be investigated.

Methods: The protocol of this review conformed to the PRISMA guidelines and was uploaded for registration with PROSPERO. Pubmed and Web-of-Science were systematically searched for relevant articles using the keywords: humans, exercise, and blood cells. Exercise intervention studies, which investigated immune cell function in humans, and written in English, Dutch or French were eligible. Case reports, reviews, and observational studies were excluded. Title and abstracts were screened for eligibility by two independent reviewers (KL and LS).

Results: The search stream of databases Pubmed and Web-of-Science yielded respectively, 4311 and 3106 articles, of which 1303 were duplicates. The selection procedure is ongoing; at this point, already 160 articles are eligible for full-text analysis.

Conclusion: This systematic review will give an overview of the most recent literature regarding the effects of physical exercise on the immune cell function in humans and whether this is accompanied by an improvement of the human defence system.

M31 The older renal dialysis patient and the impact on meaningful daily functioning and quality of life: a mixed method study

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Aim: This study investigates whether chronic kidney disease, time-investment of dialysis (three to four times a week), the treatment-side-effects and emotions impact the meaningful daily activities and quality of life (QoL) of older dialysis-patients.

Methods: In a cross-sectional mixed method study, 111 patients (64,90% male; 35,10% female; average age 78,08 [\pm 7,36]) were included. QoL was measured with the Amnestic-Comparative-Self-Assessment (ACSA). Multiple-linear-regression (forward-stepwise selection) was used to investigate which factors significantly predict QoL. Additionally, 20 patients (mean age 76) were interviewed about their experiences with the dialysis. The phenomenological analysis was used.

Results: Participants reported an average QoL-score of 1,97 (\pm 2,05; -5-+5). Cognitive functioning score (EORTC QLQ-C30), performance of daily activities (EuroQol 5D-3L), the number of times admitted to the hospital during the past year, self-perceived health (EQ VAS) and the frailty state (Groningen Frailty Indicator) were withheld as significant predictors of the ACSA-score (p

Conclusion: Results suggest that health professionals should be alert during the treatment of dialysis-patients, because they are frail in different ways, which affect their QoL. Interdisciplinary revalidation targeting daily functioning is advised.

M32 Tiredness of life and demoralization in hospitalized older persons (70+): an exploratory survey study

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Purpose: This study investigated the co-occurrence versus independence of tiredness of life with demoralization, depression and a wish to die to evaluate its features as a concept in the context of older persons.

Method: A structured interview containing six validated questionnaires: the vitality scale (VS), the Geriatric Depression Scale (GDS-15), the EuroQol-5D (EQ-5D-3L), the Demoralization Scale-II (DS-II), the Desire for Death Rating Scale (DDRS) and the Meaning in Life Questionnaire (MLQ) was conducted in a consecutive sample of older patients (70+) hospitalized in the acute geriatric wards of 3 Flemish hospitals.

Results: 86 respondents (range 74-101 years, 56% female) completed the questionnaire. Clinically relevant levels of demoralization were present in 28% of the patients. 17% appeared to be tired of life. A significant positive correlation was found between the questionnaires DS-II, GDS-15, DDRS and the question that gauged tiredness of life ($p < .01$).

Conclusion: Both demoralization and tiredness of life are present within hospitalized older person but are insufficiently detected by geriatricians. Moreover, an important overlap between the various concepts exists. Before developing concrete interventions, further research is required to refine and specify the attributes of each concept.

M33 Afbouw van psychofarmacagebruik in woonzorgcentra: een implementatiestudie voor de bredere uitrol in Vlaanderen

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Doel: Een recent praktijkverbeteringsinitiatief (met inbegrip van vorming, professionele ondersteuning en de overgang naar persoonsgerichte zorg) zorgde voor een significante daling van het psychofarmacagebruik in woonzorgcentrum. De methodiek van het initiatief werd omgezet in een algemeen interventiesjabloon en bijgevolg geïmplementeerd in vijf woonzorgcentra ter voorbereiding op een bredere uitrol in Vlaanderen.

Methodologie: Het algemene interventiesjabloon werd ingepast in de werking van de respectievelijke woonzorgcentra. Er werd vorming gegeven aan het woonzorgcentrumpersoneel over psychofarmaca, niet-farmacologische alternatieven en een overgang naar persoonsgerichte zorg. Het gebruik van psychofarmaca werd cross-sectioneel geregistreerd in een dynamische cohortstudie (november 2016 – november 2017).

Resultaten: Bij aanvang bedroeg de gemiddelde leeftijd van deelnemers ($n = 677$) 85,6 jaar (range 54-109 jaar), met 72,6% vrouwen. Het gemiddeld medicatiegebruik bedroeg 8,5 (range 1-22), voornamelijk geneesmiddelen voor het centrale zenuwstelsel (ATC N, 88,8%). Zowel langdurig (> 3 maanden) (62,0%) als gecombineerd (31,5%) gebruik van psychofarmaca waren hoog. Na 12 maanden daalde de prevalentie van langdurig gebruik (van 62,0 tot 52,9%, p

Conclusie: De afzonderlijke implementatie van het eerder gerapporteerde praktijkverbeteringsinitiatief met behulp van een interventiesjabloon was mogelijk. Deze interventie resulteerde in een significante daling van het gebruik van psychofarmaca (voornamelijk hypnosedativa en antidepressiva) bij woonzorgcentrumbewoners na 12 maanden.

M34 What do intensive care nurses and physicians think of the older patient in their unit (and are they right)?

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Purpose: The increasing number of older patients admitted to the ICU is often at the center of debate in daily practice.

Whether ICU clinicians tend to discriminate older patients is unknown.

Methods: Clinicians from 68 ICUs in 12 European countries and the USA completed daily a questionnaire about the appropriateness of care during a 28 day period. We compared the cumulative incidence of patients with concordant perceptions of excessive care (cPECs), treatment limitation decisions (TLDs) and death at one year across subgroups via Cox-regression (accounting for competing risk) and Fisher-exact tests, respectively. To adjust for differences in ICU and patient characteristics, we used inverse probability weighting.

Results: Of 1641 patients admitted during the study period, 405 (25%) were ≥ 75 years. The cumulative incidence of patients

with concordant PECs was significantly higher in patients ≥ 75 years than in patients < 75 years (13.6 % vs. 8.5 %, p-value < 0.001). We found no evidence for a difference in risk of death (HR 1.14, 95%CI 0.79-1.65) and TLDs (HR 1.22, 95%CI 0.69-2.17) between older and younger patients with concordant PECs. In patients without concordant PECs, we found evidence for a difference in risk of death (HR 1.48, 95%CI 1.20-1.83) and TLDs (HR 2.59, 95%CI 1.71-3.39), though TLDs were mostly installed already before ICU admission.

Conclusions: Although the higher incidence of concordant PECs in older patients may suggest stigmatization, the absence of a higher risk of TLDs and death in patients with concordant PECs makes discrimination of older patients by ICU clinicians unlikely.

M35 Screening for oropharyngeal dysphagia using the EAT-10 screening tool is associated with hand grip strength in the elderly

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Objective: Screening for oropharyngeal dysphagia in the elderly using the Dutch EAT-10 screening tool. Assessment of the relation between the EAT-10 screening tool and functionality as well as the nutritional status and comorbidities.

Method: Patients ≥ 65 years admitted to the Geriatric ward of the ZNA hospitals are eligible for inclusion in this study. The exclusion criteria consist of head and neck tumours, acute cerebrovascular accident < 3 months and inability to complete the EAT-10 screening tool. The functionality is assessed using the SARC-F, hand grip strength and SPPB. The nutritional status is determined by the MNA-SF and comorbidity is assessed using the CIRS-G.

Results: A weak but significant negative correlation was shown between the EAT-10 screening tool and hand grip strength when categorized ($p = -0.169$, $p = 0.029$) using the EWGSOP2 cut-off values. No correlation was found between the EAT-10 screening tool and MNA-SF. In regards to comorbidities, a weak but significant correlation was found between the EAT-10 screening tool and CIRS-G ($p = 0.140$, $p = 0.048$) with a significant predictive effect of the EAT-10 on CIRS-G ($p = 0.001$). However, this effect accounted only for 5% (formula: $\text{CIRS-G} = 13.13 + 0.24 * \text{EAT-10}$).

Conclusion: Preliminary data showed a remarkable correlation between the EAT-10 screening tool and hand grip strength. A weak but significant negative correlation was found suggesting the interaction of sarcopenia with the deglutition process, which includes a complex interaction of dozens of muscles. Further elaboration of the muscles involved in the deglutition process would clarify this notable link.

Psycho-Sociale abstracts

PS1 De zogenaamde moeilijke mens

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Soms worden we in de zorg geconfronteerd met de moeilijke patiënt of de moeilijke familie/mantelzorger.

Wanneer het gedrag met de persoon samenvalt dan kan je als hulpverlener vaak niet meer kijken naar het individu. Soms kom je in een situatie van overdracht en tegenoverdracht terecht waardoor zorgen voor de patiënt en zijn familie/mantelzorger moeilijk wordt. Een interpretatie is een persoonlijk beredeneerd oordeel over de betekenis van een waarneming, hoe kunnen we onze interpretatie welwillend maken of zeg maar aardiger?

Doel: Hoe kan je als hulpverlener je kijk veranderen waardoor de zorg weer mogelijk wordt?

Methode: Kijken naar gedrag als communicatie/ symptoom van iets anders geeft mogelijkheden om je kijk te verbreden.

Werken volgens het systemisch denken en de communicatietheorie van Watzlawick kunnen je hierbij helpen. Het verhaal van de zorgvrager/ familie en of patiënt en de context waarin dingen gebeuren kan je best meenemen.

Resultaat: Methodisch werken kan je daarbij helpen. Ik wil jullie even laten meekijken hoe we binnen een gerontopsychiatrische setting in het Jessa kijken, observeren, bespreken en methodisch handelen.

Conclusie: Wanneer je bij de hulpverleners de neuzen in de zelfde richting kan laten wijzen, hen kan laten kijken naar de persoon los van het gedrag, dan merk ik vaak dat het probleem al voor de helft van de baan is. De gezamenlijke aanpak zorgt dan voor de rest.

PS2 E-Health solutions for ageing in place with cognitive impairment: Results of a systematic review.

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Aim: Since e-Health has the potential to facilitate ageing in place (AIP) in older adults with MCI (PwMCI) and dementia (PwD), we reviewed the most recent literature on the effectiveness of these solutions.

Methods: We conducted a systematic review using seven scientific databases. Inclusion criteria were: (1) quantitative or mixed methods studies, (2) published from 2013 until 2019, (3) evaluating at least one e-Health solution (4) targeted at (a) community-dwelling PwMCI, PwD or older adults with a risk for cognitive impairment or (b) their informal caregivers (ICs).

Results: Seventy four out of 12988 articles were included. The majority of articles were published in non-technological journals (81%). Most studies were published in The USA (26%). Most studies included exclusively ICs (35%), PwMCI (27%) or PwD (22%), however some included mixed samples, with the majority of them being PwD+IC (11%). Cognitive training solutions for PwMCI/PwD (32%) and educational/support web platforms for ICs (24%) are the most described. Reported effects of e-Health solutions were mostly positive (51%) or neutral (47%). Outcome measures were mostly related to psychosocial functioning, cognition and caregiving aspects.

Conclusion: Most of the evaluated e-Health solutions for AIP with cognitive impairment are those concerning cognitive training for PwMCI/ PwD and educational/support of ICs. These findings show that e-Health solutions are promising for facilitating AIP in these groups, however to prove effectiveness, overcoming methodological limitations in this research domain (e.g. by using controlled trials) is important.

PS3 Kiezen in overleg bij vroegtijdige zorgplanning in de Vlaamse woonzorgcentra

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Doel: Binnen deze implementatiestudie onderzoeken we de effectiviteit van 'we DECide optimised', een communicatietraining voor zorgprofessionals in het bespreken van vroegtijdige zorgplanning (VZP) bij personen met dementie en hun naasten in de Vlaamse woonzorgcentra. Het doel van deze communicatietraining is om zorgverleners, aan de hand van het Kiezen in Overleg (KIO) model, zowel op klinisch als afdelingsniveau praktische handvaten aan te reiken om met bewoners en familie in gesprek te gaan.

Methodologie: Er namen 311 personen uit 65 afdelingen deel aan de training, bestaande uit 2 workshops van een halve dag en een tussentijdse huiswerkopdracht. We maakten gebruik van een mixed methods pre- posttest design, waarbij we aan de hand van het RE-AIM Framework de implementatie van de training over een periode van 9 maanden evalueerden. De primaire uitkomstmaat was de mate waarin KIO wordt toegepast in gesprekken over VZP beoordeeld op basis van audio-opnames voor en na de interventie (OPTION-schaal). Daarnaast vulden de deelnemers ook zelfbeoordelvragenlijsten in.

Resultaten: Afdelingen van de interventiegroep hadden een significant hoger niveau van KIO na de interventie en dit terwijl de gesprekken niet langer duurden. Het effect hield ook na 6 maanden stand. Deelnemers gaven aan dat ze KIO als belangrijker zagen en ze voelden zich ook meer competent in het voeren van deze gesprekken.

Conclusie: Deze interventie kan de kwaliteit van communicatie in woonzorgcentra bij personen met dementie en hun naasten verbeteren zonder dat deze gesprekken tijdsintensiever worden.

PS4 Pilootproject Bouwstenen voor een positief seksualiteits- en intimiteitsbeleid in woonzorgcentra

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Doel: Ondanks alle media- aandacht is seksualiteit en intimiteit nog steeds een taboe onderwerp. De aandacht gaat vooral naar het thema wanneer 'brandjes moeten worden geblust'. De angst- en probleemcultuur, de #Me Too tijden maken het er

allemaal niet gemakkelijker op. Het doel van dit project bestaat erin om op zoek te gaan naar sekspositieve visies en getuigenissen in Woonzorgcentra

Methodologie: Door middel van diepte-interviews en met het boek 'Ontketen vernieuwing! Blokkades wegnemen en beweging creëren' van Arend Ardon onder de arm, alsook met zijn goedkeuring om inzichten uit zijn boek te gebruiken, werden directies/beleidsmedewerkers uit woonzorgcentra gevraagd hoe zij een sekspositief beleid ontwikkelen in hun woonzorgcentra.

Resultaten: Uit de interviews is gebleken dat het stilzwijgen rond seksualiteit en intimiteit stilaan wordt doorbroken.

Uitspraken als 'Aanraken mag in onze voorziening' tot 'het is noodzakelijk dat we menswaardige gedragscodes en huisregels opmaken' over 'respect tonen voor de openheid en hoe belangrijk het is om emoties op tafel te durven leggen' tot 'we ijveren voor een positieve cultuur'.

Conclusie: De resultaten uit de kleinschalige bevraging heeft – in combinatie met literatuuranalyse, inzichten uit beleidsdocumenten en wetenschappelijk onderzoek – ertoe geleid dat een handboek werd opgemaakt waarin talloze bouwstenen werden omschreven hoe een positief seksualiteits- en intimiteitsbeleid in woonzorgcentra kan ontwikkeld/verder uitgebouwd worden.

Het boek van Els Messelis draagt de titel 'Intimiteit en seksualiteit in woonzorgcentra' en is uitgegeven bij Gompel&Svacina.

PS5 Sexuality Policy in Residential Aged Care Facilities in Flanders

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Purpose: A survey was conducted using the 69 item Sexuality Assessment Tool (SexAT) to identify how supportive Residential Aged Care Facilities in Flanders, Belgium, are of residents' sexual expression.

Methods: 750 Aged Care Facilities were contacted and 69 (9,2%) completed the SexAT survey after three reminders.

Results: Findings indicate that no facilities are rated as 'excellent' (score greater than 60/69) and only 12% as 'very good' (score between 41-59/69). The majority (58%) of facilities are rated as 'good' (score between 21-40/69) and 30% scored less than 20/69.

Conclusions: While the generalizability of findings is limited due to the low response rate, findings reflect the marginal status of sexuality accorded in the aged care setting and it is surmised, indicative of the low priority given to sexuality by Aged Care Facilities over other measures of wellbeing. Findings mirror other sexuality research in residential aged care.

Survey was conducted end 2017 (scientific paper has been accepted for publication in Sexuality and Disability, november 2019).

PS6 Tiredness of life in older persons: An evolutionary concept analysis

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Aim: To clarify the concept of tiredness of life in older persons.

Method: A literature review was executed using Rodgers' evolutionary method of concept analysis to analyze the attributes, surrogate terms, related concepts, antecedents and consequences of "tiredness of life". Four databases (Pubmed, Web of Science, CINAHL and EMBASE) were searched (January 2000 until September 2019). Two reviewers (SDM and FD) independently screened the titles and abstracts of 642 records.

Results: 34 publications were included. Four defining attributes (being weary of life, motivational depletion, loss of meaning in life and an inability to connect to ones' life), four antecedents (the experience of unpredictable circumstances, experienced age-related life struggles, the fear of dependency and social redundancy), and 3 consequences (euthanasia requests, voluntary refusal to eat and drink and suicide) were identified. Concepts such as 'finished with life', 'suffering from life' and 'completed life' were used interchangeably both in public debate as among health care providers and patients.

Conclusion: International consensus definition on "tiredness of life" is currently lacking. Analysis of its defining attributes and antecedents provides important information related to its impact and potential risk factors. Tiredness of life cannot be understood without taking into account the socio-cultural context and the moral understandings as the background against

which older people define themselves, act in relation to others and understand the world. Clearly, more work is needed to grasp the experience of tiredness of life. Future research needs to focus on (1) enhancing definition development, (2) development of an instrument to measure tiredness of life, and eventually (3) testing the effectiveness of interventions to alleviate tiredness of life.

PS7 Vier het Leven – Samen genieten van cultuur.

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Doel: Veel ouderen genieten nog met volle teugen van het leven. Toch wordt hun netwerk van vrienden en familie steeds kleiner. Een bezoekje aan een cultuurhuis wordt vaak minder evident, door een verminderde mobiliteit of omdat het niet altijd leuk is om alleen te gaan. 'Vier het Leven' biedt een mooie en gepersonaliseerde oplossing.

Methodologie: Wij organiseren theater-, film-, musea- en concertbezoeken voor ouderen die niet meer alleen kunnen of willen gaan. Zij worden van deur tot deur begeleid door vrijwilligers. De deelnemende ouderen betalen voor een arrangement, inclusief drankjes en vervoer, de vrijwilliger verzorgt alles voor hen. Door te werken met lokale vrijwilligers, die in dezelfde gemeente wonen, ontstaat er ook weer een lokaal netwerk voor deze ouderen.

Vier het Leven kiest bewust voor het deelnemen aan voorstellingen uit het bestaande aanbod van de cultuurhuizen. Elke deelnemer schrijft individueel in voor een activiteit.

Resultaten: Deze werking realiseerde de eerste 2 maanden op 2 experimentele locaties: 12 uitstappen, 29 deelnemers, 17 unieke deelnemers, 18 actieve vrijwilligers, 7 cultuurhuizen als partner.

De tevredenheid van de deelnemers en van de vrijwilligers was uitermate hoog.

Conclusie: Deze haalbare en goedkope methode bevordert een toenemende cultuurparticipatie, het algemeen welbevinden van alleenstaande thuiswonende ouderen en bestrijdt sociale isolatie en gevoelens van eenzaamheid.

Varia abstracts

V1 Clinical leadership of health care professionals in Belgian Acute Geriatric Units: A Survey Study

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Purpose: Clinical leadership (CL) is the competency of health care professionals (HCP) to influence others to continuously improve care (Pepin, 2010). Goal is to investigate the state of the art of CL in Belgian acute geriatric units (AGUs): (1) how do HCP in AGU perceive their CL, and (2) what determines their CL?

Methods: The Clinical Leadership Survey (Patrick, 2011), a self-assessment questionnaire as part of a questionnaire concerning interprofessional collaboration, was used to measure CL practices of HCP in AGU providing direct patient care. This questionnaire was sent to head nurses of Belgian AGUs who distributed it to their team members.

Results: 890 team members of 55 AGU's participated: 5.5% were physicians, 6.3% head nurses, 59.8% registered nurses, 7.3% nursing aids, 21.1% other health professionals. CL consisted of four factors: (1) Encouraging colleagues, (2) Engaging in relationships with patients, family and colleagues, (3) Reflective practice and deliberation, and (4) Critical consideration.

Comparing CL-data, Reflective practice and Critical consideration scored the lowest, while Engaging in relationships and Encouraging colleagues scored the highest. Overall CL-scores differed between professions, with physicians and head nurses scoring high, while nurses and nursing aids relatively low. Hierarchical linear modelling showed that CL is explained by professional role and employment rate on the individual level and interprofessional teamwork on the team level.

Conclusions: This study gives first insight in CL in Belgian AGUs. Nurses and nursing aids scores on CL are low. Although they are rightly placed to be patients advocates, they do not feel competent to fully take up this role. Data also show the need to invest in reflective practice and critical thinking

V2 Concordances and differences between a unidimensional and multidimensional assessment of frailty: A cross-sectional study

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Aim: As many instruments to identify frail older people have been developed, the prevalence rates of frailty vary widely. The aims of this study were 1) to examine the concordances and differences between a unidimensional and multidimensional assessment of frailty, 2) to assess to what extent the characteristics of a 'frail sample' differ depending on the used frailty measurement because 'being frail' is used in many studies as an inclusion criterion.

Methods: A cross-sectional study was conducted among 196 community-dwelling older adults (aged ≥ 60 years) in three Flemish municipalities. Unidimensional frailty was operationalized according to the Fried Phenotype (FP) and multidimensional frailty according to the Comprehensive Frailty Assessment Instrument (CFAI). The concordances and differences were examined by prevalence, correlations, observed agreement, Kappa values. Differences between sample characteristics (e.g., age, physical activity, life satisfaction) were investigated with ANOVA and Kruskal-Wallis test.

Results: The correlation between FP and the CFAI was $r=0.46$ and the observed agreement was 52.85%. The Kappa value was $\kappa=0.35$ (quadratic $\kappa=0.45$). The 'frail sample' respondents according to the FP had higher levels of life satisfaction and net income, but performed less physical activities in comparison to high frail people according to the CFAI.

Conclusion: The present study shows that the FP and CFAI partly measure the same construct. Since 'being frail' is an inclusion criterion in many studies, researchers must be aware that the choice of the frailty measurement has an impact on both the estimates of frailty prevalence and the characteristics of the selected sample.

V3 Een nieuwe manier om geriatrische kennis te verspreiden in het Jessa-ziekenhuis: de schommelstoel-quiz

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Jessa Ziekenhuis

Doel: het ontwikkelen van een nieuw concept om prevalentie problemen bij gehospitaliseerde kwetsbare ouderen onder de aandacht te brengen.

Methode: De quiz vond plaats in het Jessa ziekenhuis (981 bedden) waar 46,3% van de opnames in 2018 patiënten ≥ 75 jaar waren. Een lokale werkgroep ($n=10$) – onder leiding van het geriatrisch support team – creëerde de quiz 'de schommelstoel' met ondersteuning van de communicatiedienst, het middenmanagement en de directie. De opdrachten werden gebouwd rond geriatrische giants (voeding, cognitie, mobiliteit...) en rond zorg aan ouderen (ADL activiteiten, fixatie...). Zowel verpleeg- als zorg ondersteunende teams schreven zich op vrijwillige basis in, voor de winnaar werd een geldprijs voorzien. Wekelijks werden enveloppen met opdrachten verdeeld en waren opdrachten terug te vinden op het lokale intranet. De laatste week was er een slot-*event* met alle deelnemende teams waar de winnaar gekroond werd.

Resultaten: Verspreid over drie weken moesten er 10 puzzelopdrachten (woordzoekers, woordspellen...), 9 rebussen en 6 filmopdrachten opgelost worden. Ook de geriatr moest 3 keer gevonden worden aan de hand van een foto tip. In week vier werden vragen over een filmpje om ter snelst opgelost. In totaal streden 31 teams (400 medewerkers) mee en werd de quiz gewonnen door een SP Dienst, gevolgd door 2 diensten geriatrie. De gemiddelde score op de quiz was 25,4/30 (range 11,3-29,4) met zeer positieve feedback van de deelnemende teams.

Conclusie: de geriatr-quiz slaagde erin op een ludieke manier een variëteit aan geriatrische topics onder de aandacht te brengen.

V4 Feasibility and acceptability of an interdisciplinary intake assessment for vulnerable older adults using a patient centered approach

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Aim: To assess acceptability and feasibility of an interdisciplinary intake assessment for older adults in order to coordinate goals of care and align professional services with patient preferences.

Methods: The study took place in a 24 bed geriatric department of the Jessa hospital, a community hospital with 155 geriatric beds. Acceptability and feasibility was assessed using patient and healthcare workers interviews that took place January 2019. The results of the interviews were discussed in a healthcare worker focus group.

Results: a total number of 15 patients and 12 healthcare workers was interviewed. The main theme that emerged from a patients' perspective was a great satisfaction. Patients experience a higher level of participation and feel welcomed because of the time and attention they receive during admission. Healthcare workers are convinced of the added value of the assessment form both from a patients' as from a healthcare workers' perspective. Healthcare workers struggle with time management and with questions that they feel are out of their comfort zone for example questions that screen for potential depression. Positive feedback from patients greatly reduces barriers they experience. Other major themes are the difficulty of breaking habits and the struggle to define boundaries and expectations in an interdisciplinary team.

Conclusion: Based on both patients' and healthcare workers feedback the interdisciplinary intake form seems both feasible and acceptable. Local support should focus on time management and ameliorating communication skills in healthcare workers. Within the interdisciplinary team roles and expectations need to be redefined.

V5 Follow-up of ILT recommendations in Flemish hospitals (FIREFLY): a multi-center observational study

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Purpose: To evaluate the adherence to IGCT recommendations and determine which team and organisational characteristics are related to higher adherence rates.

Method: A cross-sectional observational study was conducted between March and June 2018 in 10 Flemish hospitals in patients aged ≥ 75 years admitted to nongeriatric wards. Demographic and adherence data were collected by each IGCT for 30 consecutive patients. The recommendations were grouped in eight clusters, each with several subgroups, in an iterative process. A cross-sectional survey validated by 11 geriatric experts mapped team and organisational characteristics of the participating IGCTs.

Results: Analyses were done in 287 patients with a mean age of 82.0 (SD ± 5.6) and median length of stay of 10 days (IQR 6 – 16.5). A median number of 3 recommendations (range 1-13) was given per patient. The overall complete and partial adherence rate to IGCT recommendations was 71.3% and 4.7% respectively, and ranged from 47.9% to 98.5% in the participating hospitals. The highest adherence rate was observed for recommendations related to social status (82.3%) and functional status and mobility (73.3%), while recommendations related to medication (53.2%) and nutrition (58.8%) were least adhered to. Multilevel analyses to answer the second research question are ongoing and will be presented at the conference.

Conclusion: Large variability in the adherence rate to IGCT recommendations was observed between hospitals and between the type of recommendations given. Multilevel analyses will indicate which care processes lead to higher adherence rates and can guide future IGCTs in their daily work.

V6 Het belang van waarden binnen een ziekenhuissetting volgens ouderen (75+) en hun zorgverleners: een cross-sectioneel onderzoek

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Doel: Nagaan welke waarden oudere patiënten en hun zorgverleners belangrijk vinden betreffende het concept patiëntgerichte zorg, hoe zij deze waarden ervaren en in welke mate er verschillen zijn tussen beiden groepen.

Methodologie: Cross-sectionele vergelijkende studie binnen één universitair ziekenhuis. Zorgverleners werkzaam binnen en patiënten ouder dan 75 jaar uit vier medische disciplines (nefrologie, cardiologie, geriatrie en interne geneeskunde) werden bevraagd. Data werden verzameld in juli-september 2018.

Resultaten: Er scoorden 149 patiënten en 118 zorgverleners 15 stellingen op belangrijkheid en ervaring ervan. Oudere patiënten vinden eerlijkheid, het krijgen van informatie op maat en zorgverleners die zeggen wat kan en niet kan het belangrijkste. Zorgverleners vinden de patiënt beschouwen als een individu met een eigen

levensverhaal, respect voor privacy en de patiënt zien als een persoon i.p.v. een gezondheidsprobleem belangrijker. Oudere patiënten vinden het krijgen van informatie op maat (p

Conclusie: Oudere patiënten en hun zorgverleners vinden andere waarden belangrijk in de zorg en ervaren de aanwezigheid van deze waarden in de zorg anders.

V7 Patiëntenpanel voor de oudere zorgvrager in het ziekenhuis: een unieke en efficiënte vorm van patiëntenparticipatie

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Doel: Het afstemmen van het perspectief van ouderen, hun mantelzorgers en zorgverleners om zo kwaliteitsvolle en patiëntgerichte zorg in het Jessa Ziekenhuis te kunnen organiseren die aansluit bij noden van de oudere zorgvrager.

Methodologie: Na een brainstormsessie met verschillende stakeholders van het Jessa ziekenhuis (o.a. *Patient Experience Officer*, clustermanagement, werkgroep 'Seniorvriendelijk ziekenhuis' en hoofdverpleegkundigen) werd beslist om een patiëntenpanel op te richten rond de zorg voor kwetsbare ouderen in het ziekenhuis. Na het opstellen van een visietekst rond participatie bij ouderen werden aan de hand van een flyer patiënten en mantelzorgers via een random sample geïncludeerd.

Resultaten: Sinds de start van het patiëntenpanel 4/10/2018, vonden er 9 panels plaats. Het panel bestaat uit 12 leden (inclusief 3 Jessa-medewerkers). Bij de opstart lag de focus op het opstellen van een charter met werkafspraken. Vervolgens werden ideeën voor verbeterinitiatieven voor geriatrische zorg verzameld, deze werden door de leden van het panel aangereikt. Hiermee werd een plan van aanpak opgesteld met items die de voorkeur wegdroegen. Reeds gerealiseerde verbeterinitiatieven zijn het herwerken van de onthaalbrochure geriatrie en feedback op de anamnese voor de oudere zorgvrager.

Conclusie: In het patiëntenpanel krijgen oudere zorgvragers en hun mantelzorgers de kans om ervaringskennis, die kan bijdragen aan verbeteringen in de zorg, te delen. Voor Jessa lijkt dit de sleutel om de zorg af te stemmen op de noden en behoeftes van patiënten. De interactie tussen patiënten, mantelzorgers en ziekenhuismedewerkers zorgt bovendien voor een stimulerende omgeving die het engagement van ziekenhuismedewerkers vergroot.

V8 Person centered care perceived by health care professionals in Belgian Acute Geriatric Units

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Purpose: Person centered care (PCC) is seen as standard of care. Goal is to investigate the state of the art of PCC in Belgian acute geriatric units (AGUs): (1) What are the constituents of PCC in AGU's, (2) how do health care professionals (HCP) in AGU perceive the PCC of their team?

Methods: A self-assessment questionnaire was constructed based on Phases of Partnership (Mastro, 2014): 1. Respect & dignity, 2. Information & Knowledge Sharing, 3. Empowered participation & Shared decision making, 4. Collaboration & engagement. The questionnaire was validated through Delphi by experts in geriatric care and care ethics. Data of individual team members on how their team performs in PCC are used.

Results: 854 team members with actual bedside experience of 55 AGU's replied. Regarding the constituents of PCC, analysis showed 2 clusters: cluster 'basic skills' representing phases 'Respect & dignity and Information & Knowledge Sharing' and cluster 'attitude of companionship' referring to Empowered participation & Shared decision making and Collaboration & engagement' of Mastro's model. HCP score their teams average or above average on overall PCC. HCP's experience their teams as scoring relatively high on 'basic skills' and relatively lower on 'attitude of companionship'.

Conclusions: HCP's of AGU's score their teams (above) average on overall PCC, with cluster 'basic skills' relatively higher than cluster 'attitude of companionship'. Interventions focussed on 'attitude of companionship' are needed. Knowing that the clinical leadership is essential in PCC, focus on clinical leadership competence of individual HCP's might support the 'attitude of companionship'.

Auteurs

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