

## **Abstracts 36e Wintermeeting Belgische Vereniging voor Gerontologie en Geriatrie 2013**

**Auteurs:** Belgische Vereniging voor Gerontologie en Geriatrie

### **1. The effects of abrupt antipsychotic discontinuation in cognitively impaired older persons: A pilot study**

Majda Azermai<sup>a</sup>, Mirko Petrovic, Sebastiaan Engelborghs, Monique Elseviers, Stefan Van der Mussele, Hans Debruyne, Lucas Van Bortel, Robert Vander Stichele

<sup>a</sup> Division of Clinical Pharmacology, Heymans Institute of Pharmacology, University Gent

*Purpose:* Antipsychotic use for behavioural and psychological symptoms of dementia (BPSD) is controversial. Guidelines advise to reduce antipsychotics given the adverse effects and limited efficacy.

*Methods:* A pilot study with 40 hospitalised geriatric cognitively impaired patients, in which the effects of abrupt antipsychotic discontinuation were investigated, using neuropsychiatric inventory (NPI) scores before and 1 month after discontinuation. Withdrawal symptoms were monitored thrice a day with a checklist during five consecutive days.

*Results:* Participants ( $n = 40$ ) had a mean age of 84 years (range 67–95) and 53 % were male. The total mean baseline NPI score was 21 (SD 12) with predominantly behavioural rather than psychological disturbances. After abrupt discontinuation, mild withdrawal symptoms were observed in 72 % of the patients, with frequencies of symptoms peaking on day 2 (53 %) and day 3 (48 %). After 1 month, 31 patients (85 %) were still off antipsychotics and improved on the majority of NPI domains, with a total mean NPI score decreasing from 18 (SD 13) to 12 (SD 8,  $p = 0.003$ ). In the relapse group, there was no deterioration associated with the abrupt discontinuation and subsequent resumption of therapy with a total mean NPI score decreasing from 31 (SD 12) at baseline to 27 (SD 8) at one-month follow-up ( $p = 0.345$ ).

*Conclusion:* Abrupt antipsychotic discontinuation appears to be feasible in older individuals with BPSD. Systematically performed discontinuation efforts in clinical practice are needed to differentiate between patients where antipsychotics have no added value and patients where the benefits outweigh the risks.

### **2. Effects of 3 months of controlled whole body vibrations with low exposure period on the risk of falls among nursing home residents.**

Charlotte Beaudart<sup>a</sup>, Didier Maquet, Mélanie Mannarino, Jean-Michel Crielaard, Jean-Yves Reginster, Olivier Bruyère

<sup>a</sup> Public Health, University of Liège, Liège

*Purpose:* The objective of this randomized controlled trial was to assess the impact of a 3-month training by whole body vibration on the risk of falls among nursing home residents.

*Methods:* Patients were randomized into two groups: the treated group which received 3 training sessions/week composed of 5 series of 15 s of vibration at 30 Hz intensity and a control group with normal daily life for the whole study period. The impact of this training on the risk of falls was assessed blindly by the Tinetti Test, the Timed Up and Go test and a quantitative evaluation of a 20-meter walk.

*Results:* 62 subjects (47 women and 15 men;  $83.2 \pm 7.99$  years) were recruited for the study. No significant change in the studied parameters was observed between the two groups after 3 months of training. Actually, the Tinetti test improved by  $+0.93 \pm 3.14$  points in the treated group against  $+0.88 \pm 2.33$  points in the control group ( $p = 0.89$ ). The Timed Up and Go test

shows an evolution of  $-1.14$  ( $-4.75$ – $3.73$ ) seconds in the treated group against  $+0.41$  ( $-3.57$ – $2.41$ ) seconds in the control group ( $p = 0.06$ ). For the quantitative evaluation of the walk, no significant change was observed between the two groups.

*Conclusion:* The whole body vibration training performed with the exposition settings such as those used in this research seems to have no impact on the risk of falls among nursing home residents. Further investigations, in which, for example, the exposure parameters would be changed, seem necessary.

### 3. The rationale for the beneficial effect of exercise in knee osteoarthritis

David Beckwée<sup>a</sup>, Peter Vaes<sup>a</sup>, Maarten Cnudde<sup>a</sup>, Eva Swinnen<sup>a</sup>, Ivan Bautmans<sup>b</sup>

<sup>a</sup> Rehabilitation Sciences Research Department, Vrije Universiteit Brussel, <sup>b</sup> Frailty in Ageing Research Department, Vrije Universiteit Brussel

*Purpose:* Exercise reduces pain and improves functioning in osteoarthritis of the knee (OAK). Underlying mechanisms are still under debate and better understanding of the pathways involved may contribute to more targeted treatment strategies. This qualitative analysis of the literature aims to provide an overview of theoretical models that are put forward to explain the treatment effects of exercise in OAK.

*Methods:* An inductive qualitative approach, based on the 'grounded theory' of Glaser and Straus, was used. Studies emphasizing on exercise therapy for OAK, collected from three Cochrane reviews and nine guidelines of the Physiotherapy Evidence Database (PEDRO) published between 2000 and 2012, were included. The introduction and discussion parts of these papers were screened for explanations of exercise-induced benefits in OAK patients.

*Results:* Twenty-two studies were included and 73 key points were identified which were subdivided into 16 core theoretical concepts. Finally, 5 categories were formed: neuromuscular, peri-articular, intra-articular, and psychosocial components, and general fitness and health.

*Conclusion:* Future research on exercise in OAK should allow distinguishing the contribution of different potential pathways to the treatment effects.

### 4. Slaapkwaliteit van chronisch benzodiazepine gebruikers in woonzorgcentra: een vergelijkende studie met niet-gebruikers

Bourgeois Jolyce<sup>a</sup>, Elseviers Monique<sup>a</sup>, Petrovic Mirko<sup>a</sup>, Van Bortel Luc<sup>a</sup>, Vander Stichele Robert<sup>a</sup>

<sup>a</sup> Heymansinstituut voor Klinische farmacologie, Universiteit Gent, <sup>b</sup> Vakgroep Verpleeg- en vroedkunde, Universiteit van Antwerpen

*Doel:* Benzodiazepines (BZDs) en z-medicatie vormen de meest voorgeschreven symptomatische behandeling van slaapproblemen bij ouderen. Het chronisch gebruik van BZDs wordt afgeraden omwille van de niet bewezen doeltreffendheid en de gerelateerde bijwerkingen. Het doel van deze studie was om de subjectieve slaapkwaliteit van chronische BZD gebruikers te beschrijven en te vergelijken met niet-gebruikers.

*Methodologie:* Wilsbekwame residenten van 10 Belgische woonzorgcentra werden ingedeeld in een groep van chronische (gedurende 3 maand of langer) gebruikers van BZDs en aanverwante z-medicatie en een groep niet-gebruikers. Exclusiecriteria zoals gebruik van sedatieve antidepressiva en BZDs als anxiolyticum werden gehanteerd. Naast demografische, functionele en mentale karakteristieken van de residenten analyseerden we zowel globale slaapkwaliteit als specifieke slaapparameters met een gevalideerde slaapschaal, de Pittsburgh Sleep Quality Index. Deze schaal duidt slechte slapers aan (cut-off >5 op een schaal van 0 tot 21).

*Resultaten:* Van 300 beschikbare residenten waren 178 (59 %) chronisch BZD gebruikers en 122 niet-gebruikers. Deze twee groepen verschilden niet in demografische, functionele en mentale karakteristieken (gemiddelde leeftijd 85 jaar, range 57–100 en 75 % vrouwen). De chronische BZD gebruikers rapporteerden significant meer subjectieve problemen met de slaaplatentie, meer nachtelijk ontwaken, meer niet uitgerust ontwaken problemen met uitgerust opstaan en ervaarden een

slechtere globale slaapkwaliteit in vergelijking met niet-gebruikers. Van de BZD gebruikers was 42 % een slechte slaper in vergelijking met 27 % van de niet-gebruikers. De totale slaaptijd en tijd om in slaap te vallen verschilden echter niet.

*Conclusie:* Chronische BZD gebruikers rapporteren een slechtere slaapkwaliteit in vergelijking met niet-gebruikers waardoor de langdurige doeltreffendheid van BZDs in vraag kan gesteld worden.

### **5. Quantitative gait assessment using an accelerometer technology as a predictive tool of falls among nursing home residents: a 6-month prospective study**

Olivier Bruyère<sup>a</sup>, Anne-Sophie Detalle<sup>a</sup>, Marie Demonceau<sup>b</sup>, Charlotte Beudart<sup>a</sup>, Jean-Louis Croisier<sup>b</sup>, Jean-Michel Crielaard<sup>b</sup>, Jean-Yves Reginster<sup>a</sup>, Didier Maquet<sup>b</sup>

<sup>a</sup> Public Health, <sup>b</sup> Motricity Sciences, University of Liège, Liège, Belgium

*Purpose:* The objective of this prospective study was to assess the clinical interest of a new quantitative gait assessment method as a predictive tool of falls among nursing home residents.

*Methods:* 100 patients aged over 65 years living in a nursing home were included. Quantitative assessment of their gait was performed in a 20 m walk test using an accelerometric device in simple and dual task. Socio-demographic data were collected as well as known risk factors for falls.

*Results:* After 6 months of follow-up, 47 patients had experienced at least one fall. Compared to patients without new fall, patients experiencing a fall during the follow-up had a lower walk speed ( $p < 0.05$ ) and walk stride ( $p < 0.05$ ) both in simple and dual task. However, after adjusting for all potential confounders collected, walk length and walk speed were no more significantly associated with falls incidence. The only variable significantly associated with falls after adjustment was the Tinetti test ( $p < 0.001$ ). The ROC curve confirmed the ability of the Tinetti test to discriminate fallers from non-fallers with an area under the curve of 0.72 (95%CI: 0.62–0.82;  $p < 0.001$ ).

*Conclusion:* Gait assessment using an accelerometric technology does not allow to discriminate fallers from non-fallers among nursing home residents over a period of 6 month. We believe that the combination of variables collected with this accelerometric device could improve the ability to predict falls and need to be further investigated. At last, an assessment of multiple falls as well as a longer period of follow-up should also be performed.

### **6. Procedural, short and midterm outcome following CoreValve or Edwards transcatheter aortic valve implantation: results of the Belgian national registry**

Valérie Collas, Inez Rodrigus, Johan Bosmans

Department of Cardiology, UZA

*Purpose:* The aim of this study was to evaluate possible relation between patient risk profile, as measured by Logistic Euroscore, and clinical outcome following transcatheter aortic valve implantation (TAVI), in patients with severe symptomatic aortic valve stenosis, refused for open heart surgery.

*Methods:* All consecutive patients who underwent TAVI in Belgium between December 2007 and March 2012 ( $n = 861$ ) are reported in the Belgian TAVI Registry. 401 patients were treated with the Medtronic CoreValve and 460 patients with the Edwards Sapien. Logistic Euroscore was used to quantify riskprofile. Euroscore 0–15 was considered to be “high risk”. Euroscore  $>15$  was considered to be very “high risk”.

*Results:* Median age was 83 (79–87) and 47 % were male. Median Logistic EuroScore was 23 (14–34)%. In the “high risk” patients ( $n = 218$ ), 1 month, 6 months and 1 year survival were 94 %, 90 % and 86 %. In the “very high risk” patients ( $n = 588$ ), 1 month, 6 months and 1 year survival were 89 %, 84 % and 80 %. These differences are significant ( $p$ -value 0,05).

*Conclusion:* TAVI is a safe technique, based on low procedural mortality. Logistic Euroscore is related to medium-term prognosis after TAVI, but grossly overestimates procedural mortality. Other, more population-specific scores have to be investigated. Longer term follow-up will be further assessed.

## **7. Physical function measurements predict mortality in ambulatory older men**

Stefanie De Buysers, Mirko Petrovic, Youri Taes, Kaatje Toye, Jean-Marc Kaufman, Stefan Goemaere

UZ Gent

*Purpose:* To assess and compare the predictive value of physical function measurements for all-cause mortality in older men, and to evaluate the Timed Up and Go test as a predictor in subjects with underlying comorbidity.

*Methods:* Observational study of a population-based sample of 352 ambulatory older men aged 71 to 86 at study baseline. The Rapid disability rating scale-2, 36-Item short form health survey, Hand grip strength, Five times sit-to-stand test, Standing balance, and Timed Up and Go test were determined at baseline. Associations with all-cause mortality were assessed using Cox proportional hazard analyses. Age, BMI, smoking status, education, physical activity, and cognitive status were included as confounders. Follow-up exceeded 15 years. Comorbidity status was categorized into cardiovascular disease, chronic obstructive pulmonary disease, and diabetes mellitus.

*Results:* All examined physical function measurements were associated with all-cause mortality. The Timed Up and Go test was the best predictor (adjusted HR per SD increase = 1.58, 95 % CI = 1.40–1.79,  $P < 0.001$ ) for global mortality and continued to be predictive in subjects with cardiovascular disease (adjusted HR per SD increase = 1.80, 95 % CI = 1.40–2.33,  $P < 0.001$ ).

*Conclusions:* The assessment of physical functioning is important in the evaluation of older persons. We encourage the use of the Timed Up and Go test as a reliable, quick and feasible screening tool in clinical settings.

## **8. Towards a Risk Taxation Instrument for Elder Abuse**

De Donder Liesbeth, De Witte Nico, Verté Dominique

Vrije Universiteit Brussel

*Purpose:* This contribution describes the development of a risk taxation instrument for elder abuse. Current numbers of victims only present a tip of the iceberg of cases of elder abuse: there is a large amount of situations that is left undetected. Only a small proportion of victims of elder abuse are presently known to protective or social services. An instrument to detect likelihood of elder abuse (in an early phase) is needed.

*Methods:* In 2011 a pilot-study was developed together with the Flemish Registration Centre for Elder Abuse and Familiehulp to test the Risk Taxation Instrument (RITI) for Elder Abuse among 3500 older people. Home-helpers from Familiehulp administered the instrument in rural, semi-urban and urban areas.

*Results:* This contribution gives an insight in the RITI, how it was developed, how it can be used and the main outcomes of the pilot-study. Several advantages of the instrument were recognised by the home-helpers: low time investment, easy to use, useful and growing awareness of elder abuse. Additionally, home-helpers expressed the RITI was a confirmation of their feelings and it gave them an opportunity to come to the fore with their thoughts which otherwise often were oppressed.

*Conclusions:* The implications of these findings for professionals are discussed in terms of usability of the instrument, further dissemination plans and how practice can use the RITI to take preventive actions.

## **9. Finding the work-family balance in later life: caring as reason for retirement**

De Donder Liesbeth, De Witte Nico, Dury Sarah, Verté Dominique

Vrije Universiteit Brussel

*Purpose:* This contribution focuses on the reconciliation of paid work and informal care. Caring for ill or disabled spouses,

elder parents or grandchildren will increasingly be required and performed by older, active workers. Consequently, it can be expected that older adults will increasingly need to combine multiple roles including paid employee, parent, grandparent, carer ... This study aims to examine the impact of conflicts between multiple roles (informal carer vs. employee) on labour market exit decisions (decision to retire) among older adults. Following, the individual profile (e.g., socio-demographic, socio-economic, type of work) of people who leave the labour market due to family responsibilities will be examined.

*Methods:* Survey data from the Belgian Ageing Studies, a research program that collected data from 65,650 older adults from 142 municipalities across Belgium, provided the empirical evidence for the analysis.

*Results:* The results reveal that 11,3 % of older adults retired because of caring responsibilities. Women, older adults with an average education or income, widowed or never married older adults, and former office workers, were more likely to retire due to caring roles. Analyses also demonstrate that those people retired earlier than on average.

*Conclusion:* The implications of these findings in terms of inclusion and participation of older people in the labour market are highlighted. In order to enable a longer working life, health and labour sectors need to develop more supportive actions to reconcile work and informal care. Finally, attention is given to the presentation of a future research project in this field.

## **10. Psychofarmaca in woonzorgcentra: de ene stopt niet wat de andere start**

Peeters Maarten<sup>a</sup>, Craenen Jan<sup>b</sup>, De Lepeleire Jan<sup>b</sup>

<sup>a</sup> ICHO, <sup>b</sup> ACHG KULeuven

*Doel:* Ondanks talrijke richtlijnen en veiligheidsmaatregelen, blijft de voorschrijffrequentie van psychofarmaca bij personen met dementie in Woon- en Zorgcentra hoog. Deze hoge prevalentie van psychofarmaca kan niet verklaard worden door de bescheiden succesratio, beschreven in de literatuur. In deze studie trachten we de reden te achterhalen waarvoor en de context waarin psychofarmaca opgestart en/of verder gezet worden bij residenten met dementie in een woonzorgcentrum.

*Methodologie:* Kwalitatieve onderzoeksmethode door semigestructureerd live interview van de betrokken huisarts, verpleegkundige en proxy. Uit de populatie van drie woonzorgcentra worden at random 12 residenten gekozen, die voldoen aan gespecificeerde inclusiecriteria. De verpleegkundige en de huisarts die bij de zorg betrokken zijn, worden eveneens geïncludeerd.

*Resultaten:* Psychofarmaca werden in meer dan de helft van de gevallen opgestart omwille van een acuut toestandsbeeld. Medicatie – al dan niet opgestart in acute setting – wordt verder gegeven door de huisarts, zonder ze in vraag te stellen en zonder het toepassen van inperkende maatregelen. Verpleegkundigen zijn vragende partij voor een antipsychoticum in het WZC. De ingesteldheid van de verpleegkundige speelt een grote rol in het al dan niet toedienen van medicatie. De familie weet meestal niet welke medicatie patiënten nemen; Huisartsen overwegen te weinig om de psychofarmaca te stoppen

*Conclusie:* In deze geselecteerde populatie werd medicatie vooral opgestart in een acute setting of op vraag van verpleegkundigen. Huisartsen herevalueren de verdere nood van deze medicatie na de acute episode onvoldoende of niet.

## **11. Geïntegreerd kader voor de opleiding van huisartsen in ouderenzorg**

De Lepeleire Jan, ACHG KU Leuven

*Doel:* Naast de kennis over geriatrische syndromen en de algemene pathologie, moeten huisartsen ook andere concepten en kaders kennen en kunnen hanteren. Doel is die aan te reiken in de basisopleiding, de specialisatie en de continue navorming

*Methodologie:* Na jaren van experimenteren en gebaseerd op elementen uit de literatuur, werd een geïntegreerd schema ontwikkeld rond de belangrijke transities die de (huis)arts moet kunnen hanteren in de zorg voor oudere mensen

*Resultaten:* Het algemene kader voor opleiding kan gevat worden in tien 'transities': 1. ageism in de samenleving; 2. van autonomie naar afhankelijkheid; 3. van non-frail naar frailty; 4. van ziekte-naar doelgericht denken; 5. van vraaggericht consult naar case-finding en geriatric assessment; 6. Van mono- naar multidisciplinair handelen; 7. van mono- naar polyopathie en

geriatische syndromen; 8. Van thuiswonend naar residentieel wonen; 9. van geen medicatie naar polyfarmacie; 10. van informed consent tot wilsbeschikkingen en levenseindebeslissingen.

*Conclusie:* Het opleidingskader voor huisartsen moet aangevuld worden met de kennis over tien transitieën die mensen met ouder worden kunnen ondergaan.

## **12. Predictive validity of the advanced Activities of Daily Living (a-ADL) tool for the diagnosis of Mild Cognitive Impairment (MCI)**

Patricia De Vriendt<sup>a</sup>, Ellen Gorus<sup>a,b</sup>, Elise Cornelis<sup>a,b</sup>, Mirko Petrovic<sup>c,d</sup>, Tony Mets<sup>a,b</sup>

<sup>a</sup> Vrije Universiteit Brussel, <sup>b</sup> Universitair Ziekenhuis Brussel, <sup>c</sup> UGent, <sup>d</sup> Universitair Ziekenhuis Gent

*Purpose:* The evaluation of the advanced activities of daily living (a-ADL), has been proven to be of interest in the diagnosis of mild forms of cognitive decline. The a-ADL tool, developed in accordance with the International Classification of Functioning, Disability and Health (ICF), is based on the total number of activities performed by a person and the severity of functional decline due to cognitive impairment. Taking the person as his own reference, it results in a Cognitive Disability Index (CDI). In earlier studies, the a-ADL tool showed already good psychometrical properties. This study aimed to evaluate whether mild decline in a-ADL is an early marker for Mild Cognitive Impairment (MCI).

*Methods:* Participants were diagnosed as apparently cognitively healthy older adults ( $n = 52$ ), patients with MCI ( $n = 48$ ) and mild Alzheimer's Disease (AD) ( $n = 54$ ) based upon extensive clinical examination and a set of global, cognitive, mood and functional tests. The a-ADL tool was not part of the clinical evaluation.

*Results:* The 3 groups were significantly different on the cognitive and functional tests and on the a-ADL CDI. The best model to distinguish between the 3 groups, as results of logistic regression analysis, was obtained using the total number of a-ADLs and the CDI. The overall hit ratio ranged from 79,3 % to 92,2 %.

*Conclusion:* The evaluation of a-ADL can be regarded as a useful marker for MCI. The next step is to evaluate whether the a-ADL tool is able to predict conversion to AD in the MCI-population.

## **13. Development of The Comprehensive Frailty Assessment Instrument**

Nico De Witte (Hogeschool Gent/Vrije Universiteit Brussel), Liesbeth De Donder (Vrije Universiteit Brussel), Robbert Gobbens (Rotterdam University of Applied Sciences), Jos Schols (Maastricht University), Dominique Verté (Vrije Universiteit Brussel)

*Purpose:* To evaluate the psychometric properties of the Comprehensive Frailty Assessment Instrument (CFAI), a new self-report instrument including physical, psychological, social and environmental indicators. An ageing population ageing forces governments to shift their policy towards ageing in place. Consequently, early detection of frail older persons is appropriate in order to avoid adverse outcomes. Several instruments to detect frailty exist, but most instruments have a biomedical basis and none of them uses environmental indicators.

*Methods:* Scale validation study on data provided by the Belgian Ageing Studies, a cross-sectional survey conducted in 142 municipalities in the Dutch speaking part of Belgium. 33.629 community dwelling respondents aged 60 and over were included. Exploratory factor analysis was performed on the subscales of the CFAI. Second-order confirmatory factor analysis was applied on the subscales and the whole scale. Step by step deletion of indicators was used in order to improve the overall model fit. Finally, internal consistency and explained variance of the CFAI and the subscales were assessed.

*Results:* The analysis revealed a Cronbach's  $\alpha$  of .812, explaining 63.6 % of the variance and moderately large to large factor loadings and good model fit indices: RMSEA = .032, CFI = .974 en TLI = .970. Emotional aspects contributed more to frailty (.80) than psychological (.69) and physical aspects (.36) and environmental aspects also contributed to frailty (.32)

*Conclusion:* The CFAI is found to be valid and reliable, providing evidence for the multidimensionality of frailty and can be easily used to detect community dwelling frail older people.

#### **14. Predictors of loneliness in patients with cancer: a systematic literature review**

Deckx Laura (KU Leuven), van den Akker Marjan (KU Leuven en MUMC+), Buntinx Frank (KU Leuven en MUMC+)

*Purpose:* In order to guide future efforts to prevent and deal with loneliness in cancer patients, we systematically reviewed the literature to gain insight in the prevalence and the factors associated with loneliness in cancer patients compared to patients without cancer.

*Methods:* PsycINFO, CINAHL, Embase, Cochrane Library, and Pubmed were searched from database inception to April 2012, to identify original quantitative studies of loneliness in patients with cancer. Relevance of citations was assessed by two independent reviewers who were mutually blind to the decisions made.

*Results:* Eleven studies met the inclusion criteria, of which only one compared patients with and without cancer. In 10 studies the UCLA loneliness scale was used (20 items, range 20 – 80, higher scores indicate higher loneliness). The aggregated mean loneliness score was 37, which corresponds to a moderate degree of loneliness. Need for psychological and social support were associated with higher levels of loneliness. As regards to sociodemographic factors, only marital status was consistently associated with loneliness. Unmarried, widowed or divorced cancer patients were lonelier than married patients. Cancer related factors, such as cancer site, treatment type, stage of disease, or time since diagnosis were not associated with loneliness.

*Conclusions:* Future efforts that aim to deal with loneliness in patients with cancer should take into account that only a limited number of risk factors for loneliness can be influenced. Our findings suggest that to decrease loneliness in patients with cancer, providing social support and attending to psychological needs might prove to be powerful interventions.

#### **15. Pressure ulcer prevalence and compliance with prevention recommendations in nursing homes in Flanders**

Liesbet Demarre<sup>a</sup>, Sofie Verhaeghe, Ann Van Hecke, Dimitri Beeckman

<sup>a</sup> Faculty of Medicine and Health Sciences, Department of Public Health, Nursing Science, Ghent University, Belgium, liesbet.demarre@ugent.be

*Aim:* The aim of the study was to examine (1) the pressure ulcer prevalence, and (2) the compliance with pressure ulcer prevention recommendations in nursing homes in Flanders.

*Methodology:* A cross-sectional multi-centre study was performed. All nursing homes ( $n = 760$ ) of Flanders were invited and 84 nursing homes participated in the study (8008 residents). The methodology and the validated minimum data set of the European Pressure Ulcer Advisory Panel (EPUAP) were used to collect the data. The minimum data set includes five categories: general data, patient data, risk assessment, skin observation and pressure ulcer prevention. Data were collected in March 2012. Non-response was examined in non-participating institutions.

*Results:* Pressure ulcer prevalence (Category II–IV) was 5.5 %. Non-blanchable erythema was observed in 10.5 % of the residents. Most pressure ulcers were observed at the heel (58.5 %) and sacrum (48.7 %). The prevalence of incontinence associated dermatitis was 9.1 %. Most pressure ulcers were developed on the ward (69.2 %). In patients at risk, 87.3 % received pressure ulcer prevention partly compliant with guidelines, 5.4 % received fully compliant prevention, and 7.3 % received no prevention. If pressure ulcer prevention was not fully compliant with the guidelines this was due to the absence of heel offloading (73.6 %), inadequate repositioning in bed (59.0 %) or when seated (85.4 %).

*Conclusion:* Pressure ulcers pose a significant problem in Belgian nursing homes. Quality of care can be improved if more attention is given to identify where prevention is failing and if focused on more appropriate implementation of pressure ulcer prevention guidelines.

#### **16. Prevalentie van kwetsbaarheid (frailty) en relatie met anemie in een gehospitaliseerde geriatrische populatie.**

Mathias Demuyne<sup>a</sup>, Elke Detroyer<sup>b</sup>, Koen Milisen<sup>b</sup>, Etienne Joosten<sup>a</sup>

<sup>a</sup> Dienst Geriatrie, UZ Gasthuisberg, Leuven, <sup>b</sup> Centrum voor Ziekenhuis- en Verpleegwetenschappen, UZ Gasthuisberg, Leuven

*Doel:* Kwetsbaarheid is een van de grootste uitdagingen in de geriatrie maar tot op heden zijn er weinig gegevens beschikbaar over de prevalentie bij gehospitaliseerde patiënten, noch over de relatie tussen kwetsbaarheid en anemie. We gingen de prevalentie van kwetsbaarheid na en onderzochten of deze geassocieerd is met anemie in een populatie ouderen opgenomen op een geriatrie afdeling.

*Methodologie:* In een prospectieve studie onderzochten we gedurende 8 maanden 511 patiënten waarvan er 291 geëxcludeerd werden (geen toestemming, terminaal ziek, onvoldoende coöperatie). In totaal werden er 220 patiënten geïncludeerd (gemiddelde leeftijd 83 jaar). Kwetsbaarheid werd gedefinieerd volgens de 5 criteria van Fried.

*Resultaten:* Drie patiënten waren "niet-kwetsbaar", 128 "pre-kwetsbaar" en 89 kwetsbaar". Voor de statistische analyse werden de "niet-kwetsbare" en "pre-kwetsbare" patiënten in een gezamenlijke groep "niet-kwetsbare" patiënten gecombineerd. Zodoende werden 131 (59.6 %) patiënten als "niet-kwetsbaar" en 89 (40.4 %) als "kwetsbaar" gediagnosticeerd. Medische diagnose en hemoglobine bij opname, leeftijd, geslacht, opleidingsniveau, MMSE en hospitalisatieduur waren niet significant verschillend tussen beide groepen. Het totale aantal co-morbiditeiten, totale aantal geneesmiddelen en mortaliteit tijdens de opname waren significant hoger bij de "kwetsbare" patiënten. Er was een trend naar lagere hemoglobine-waarden in de "kwetsbare" groep.

*Conclusie:* Deze studie toont aan dat kwetsbaarheid frequent voorkomt bij geriatrie patiënten. Deze resultaten zijn vergelijkbaar met vroeger uitgevoerde studies. Er kon echter, in tegenstelling tot studies uitgevoerd bij thuiswonende ouderen, geen significante associatie worden aangetoond tussen kwetsbaarheid en hemoglobine-waarden. Onze hypothese is dat dit te wijten kan zijn aan diagnostische problemen van het begrip kwetsbaarheid bij gehospitaliseerde patiënten.

### **17. Impact of Geriatric Consultation Teams on Clinical Outcome in Acute Hospitals: a Meta-Analysis**

Mieke Deschodt, Johan Flamaing, Patrick Haentjens, Steven Boonen, Koen Milisen UZ Gasthuisberg, Leuven

*Purpose:* This review and meta-analysis aims to determine the impact of mobile inpatient geriatric consultation teams (IGCTs) on clinical outcomes of interest in older adults.

*Methods:* Electronic search of Medline, CINAHL, EMBASE, Web of Science and Invert for English, French and Dutch articles from inception to June 2012. Three independent reviewers selected prospective cohort studies assessing functional status, readmission rate, mortality or length of stay in adults aged 60 years or older. Twelve studies evaluating 4546 participants in six countries were identified. Methodological quality of the included studies was assessed with the Methodological Index for Non-Randomized Studies.

*Results:* The individual studies showed that an IGCT intervention has favorable effects on functional status, readmission, and mortality rate. None of the studies found an effect on the length of the hospital stay. The meta-analysis found a beneficial effect of the intervention with regard to mortality rate, at 6 months (relative risk (RR) = 0.66, 95 % confidence interval (CI) = 0.52–0.85) and 8 months (RR = 0.51, CI = 0.31–0.85) after hospital discharge, respectively.

*Conclusion:* IGCT interventions have a significant impact on mortality rate at 6 and 8 months post-discharge, but have no significant impact on functional status, readmission, and length of stay. The reason for the non-effect on these latter outcomes may be due to lack of statistical power or the insensitivity of the measuring method for e.g. functional status. The question as to who IGCT intervention should be targeted to and what can be achieved, remains unanswered and requires further research.

### **18. Are depressive symptoms in Mild Cognitive Impairment patients predictive for conversion to dementia?**

Eva Dierckx<sup>a</sup>, Sebastiaan Engelborghs, Stefan Van der Mussele, Rudi De Raedt, Peter Paul De Deyn, Ingrid Ponjaert-



Kristoffersen<sup>a</sup>

<sup>a</sup> Department of Clinical and Lifespan Psychology, Vrije Universiteit Brussel

*Purpose:* Depressive symptoms are common in dementia, including in mild cognitive impairment (MCI). However, there is still disagreement whether these symptoms are predictive of conversion to dementia. In this study, we want to explore the predictive accuracy of the presence of depressive symptoms for Alzheimer's Disease (AD) in amnesic MCI (aMCI) patients, both at 1,5 years and 4 years of follow up.

*Methods:* 40 aMCI patients from a memory clinic were tested at baseline with the Geriatric Depression Scale (GDS), the cognitive part of the Cambridge Examination for Mental Disorders of the Elderly (CAMCOG), the Mini Mental Status Examination (MMSE) and several other neuropsychological tests. After 18 months and after 4 years, MCI-patients were reassessed and a follow up diagnosis was established. Of those who were seen for follow up after 1,5 years ( $n=31$ ), 7 fulfilled (NINCDS-ADRDA) criteria of probable AD, while 24 did not convert. After 4 years 28 patients were seen for follow up; 17 received a diagnosis of AD, while 11 did not convert.

*Results:* Binary logistic regression analyses revealed that scores on the GDS at baseline were not able to predict conversion to AD in aMCI patients after 18 months of follow up (Wald  $\chi^2(1)=3.20$ ,  $p=.074$  (CI95%: 0.983–1.447), nor at the 4-year follow up (Wald  $\chi^2(1)=0.21$ ,  $p=.647$  (CI95%: 0.875–1.239).

*Conclusion:* In our study, the presence of depressive symptoms as measured with the 30-item GDS at baseline, was not associated with a conversion to dementia in aMCI patients.

### **19. Volunteering in later life: Differences in terms of neighbourhood and municipality. A multilevel analysis.**

Sarah Dury<sup>a</sup>, Jurgen Willems<sup>a</sup>, An-Sofie Smetcoren<sup>a</sup>, Dorien Brosens<sup>a</sup>, Nico De Witte<sup>b</sup>, Tine Buffel<sup>a</sup>

<sup>a</sup> Vrije Universiteit Brussel, <sup>b</sup> Hogeschool Gent

*Purpose:* This contribution explores the relationship between features of the municipality, neighbourhood and participation in volunteering. Relatively strong evidence of the influence of place on older people's physical and mental health exists. However, the question how municipalities and neighbourhoods promote or hinder volunteer participation remains under-explored.

*Methods:* The data for the present research are derived from the Belgian Ageing Studies, a project which uses structured questionnaires to collect information about various aspects of quality of life among older adults at the municipality level. Using data from Belgian older people ( $N=67,144$ ), a multilevel multinomial logistic regression model is applied, with personal characteristics, neighbourhood features and municipality-level measures to predict volunteer participation.

*Results:* At the individual level, results reveal that the more people are involved in the neighbourhood, the more likely they are to volunteer. At the municipality level, the extent and quality of facilities increases volunteer participation, while higher aggregated rates of older residents decrease volunteer participation.

*Conclusions:* The discussion highlights the potential of the local environment as promoters or barriers for volunteering.

### **20. Invasive Pneumococcal Disease in The Oldest Old In Belgium**

Johan Flamaing, Jan Verhaegen, Willy Peetermans, Annick Mignon for the Adult IPD study group

*Purpose:* To describe the characteristics of invasive pneumococcal disease (IPD) in the oldest old ( $\geq 80$  y) in Belgium.

*Methods:* A prospective, active surveillance of IPD was conducted from 2009 to 2011 in hospitalized adults  $\geq 80$  years of age. Fifty hospitals (44 % of acute-care hospitals) participated. The clinical presentations and outcomes associated with IPD were evaluated and documented.

*Results:* A total of 466 patients  $\geq 80$  y. with IPD were identified in 3 years. Of these, 322 patients were evaluable. 28.9 % was admitted from a nursing home. IPD in patients  $\geq 80$  y. presented more as pneumonia with bacteremia than in the younger age

groups (83 % vs. 75 %), whereas meningitis and empyema were less frequent in the younger age group (3 % vs. 9 and 5 % vs 9 % respectively) ( $p = 0.012$ ). 24.5 % of the patients  $\geq 80$  y. were admitted to ICU vs 41.6 in the younger age group ( $p < 0.001$ ). Mortality rate increased with age and reached 26.3 % in patients  $\geq 80$  y. Eleven serotypes accounted for 70 % of all IPD in patients  $\geq 80$  y. Serotypes 19A, 3, 7F, 22F, 12F, were the most frequent. The majority of fatal cases could be attributable to a few serotypes: 19A, 3, 7F, 14 and 22F.

*Conclusion:* This study shows that in patients  $\geq 80$  y invasive pneumococcal disease is an important cause of hospitalization and is associated with higher mortality than in younger patients. Serotypes 19A, 3 and 7F are predominant predominant serotypes and cause mortality.

## **21. What should be in a comprehensive geriatric assessment for palliative care?**

Kirsten Hermans, Nele Spruytte, Evelien Coppens, Chantal Van Audenhove,

Anja Declercq, (LUCAS, KULeuven)

*Purpose:* Optimal palliative care for older adults requires an evaluation of multiple issues. These issues are best assessed by comprehensive geriatric assessments (CGAs). CGAs identify medical, psychosocial and functional limitations of frail older persons in order to develop a coordinated plan to maximize overall health. The international consortium 'interRAI' has designed a CGA for evaluating the strengths, preferences and needs of older adults in palliative care: interRAI Palliative Care (interRAI PC). The goal of this research is to provide an overview of published CGAs for palliative care, to analyze their content and to determine whether the interRAI PC instrument contains all necessary sections for a highly qualitative CGA for palliative care.

*Methods:* An electronic search will be performed for the years 1990 to 2012, using the following databases: PubMed, Embase, Cochrane and CINAHL. Selected keywords and well-defined inclusion and exclusion criteria will guide the search. Two independent examiners will first review all articles by title, then by abstract and subsequently by a full text reading.

*Results:* This systematic review will provide an overview of the key domains of CGAs for palliative care and an evaluation of their presence in the interRAI PC instrument.

*Conclusions:* Based on the findings of the systematic review, focus groups and interviews with professional caregivers of ten Flemish nursing homes will take place to determine whether certain necessary domains are lacking in the interRAI PC instrument. Results will enable us to optimize the content of the instrument.

## **22. Predicting decline in functionality and chemotherapy toxicity in older cancer patients: a prospective multicentre study**

Kenis, Cindy

Department General Medical Oncology and Geriatric Medicine, University Hospitals Leuven, Leuven, Belgium

*Purpose:* To evaluate functionality and to identify predictive baseline CGA markers for functional decline and severe chemotherapy toxicity, all 2 to 3 months after treatment decision.

*Methods:* Eligible patients had a malignancy, were  $>70$  years and a treatment decision had to be made. At baseline, all patients were screened using G8/Flemish TRST followed by CGA: social data/ADL/IADL/falls/MOB-T/MMSE/GDS-15/MNA/ECOG-PS/CCI/polypharmacy. Functionality at follow-up was evaluated by repeating ADL/IADL and falls. Worsening of ADL was defined as an increase in totalscore of  $\geq 2$  points and worsening of IADL as a decrease of  $\geq 1$  points at follow-up compared to baseline totalscore. In the group of patients receiving chemotherapy, treatment related toxicities grade III-IV were recorded using the NCI-CTCAE, version 4.0.

*Results:* 937 patients were included (10/2009-07/2011) with a median age of 76 years and 63.5 % women. In the follow-up group ( $n = 811$ ), worsening of ADL and IADL was observed in 17.2 % and 38.9 % respectively. 17.5 % had at least 1 fall. ADL worsening was predicted by baseline IADL, MNA and Flemish TRST ( $p < 0.05$ ), worsening of IADL by baseline ECOG-PS, Flemish

TRST, GDS-15, and chemotherapy ( $p < 0.05$ ). Falls during follow-up could be predicted by falls during the year before inclusion, baseline ADL, G8, living situation and disease setting ( $p < 0.05$ ). In the chemotherapy group ( $n = 411$ ), hematologic/non-hematologic grade III-IV toxicities developed both in 16 %. Only hematological disease was predictive for severe hematological toxicity ( $p < 0.05$ ).

*Conclusions:* Parameters from CGA can identify at-risk patients for decline in functionality and development of falls. Severe chemotherapy toxicity is not well predicted by baseline CGA parameters.

### **23. Correlates of social outcome of outpatients with dementia.**

Korpak K, De Breucker S, Vouriot J, Surquin M, Nicolay C, Van den Berghe M, Berlemont C, Bossaert L, Bourkish Z, Carlier G, Frère C, Hardy J, Honorez T, Nkodo Y, Van Bergen M, Pepersack T.

Hôpital Erasme, Geriatrics, Université Libre de Bruxelles (ULB),

*Purpose:* Define social, functional, pathological and nutritional characteristics of subjects referred for assessment of cognitive dysfunction and characterize the relationship between disabilities for activities of daily living, other geriatric syndromes and cognitive function.

*Methods:* Observational cross-sectional study. Patients referred for assessment of cognitive functions in geriatric day hospital will undergo comprehensive geriatric assessment.

*Results:* Seventy-two patients ( $80 \pm 5$  years old, 67 % females) was consecutively admitted between November 2011 and June 2012. 21 % of patients was classified as having Alzheimer's Disease (AD), 15 % Mixed Dementia, 10 % Vascular Dementia (VaD), 31 % Mild Cognitive Impairment (MCI), 8 % depression only and 14 % other diagnoses. The mean MMS was  $24 \pm 4$ . 10 % patients were at risk of undernutrition according to MNA-SF. There was no statistical difference between AD, VaD, MCI, and Mixed in term of functionality, nutrition, comorbidity or social support. 24 % of all demented patients and MCI complained from depression and/or anxiety. Psychological and physical burden of caregivers was noted in 12 % of cases. For the IADL analysis, the disability in use of telephone and medication was essentially associated to diagnosis of dementia rather MCI.

*Conclusion:* This study confirms the high prevalence of depression and undernutrition among cognitive impaired patients even among MCI. For the IADL analysis, the disability in use of telephone and medication seem to be associated to diagnosis of dementia rather MCI. The next objective of this study is to assess these patients at 6 and 18 months in term of functional, social and nutritional status in relation to dementia type.

### **24. The development of a virtual interactive task-dependent assessment and training platform combining physical exercises with cognitive challenges**

Christophe Lafosse, Lutgart Dereymaeker, Marleen Moeremans, Els Van Moer, Eric Kerckhofs,

Revalidatieziekenhuis RevArte, Edegem; KULeuven; Vrije Universiteit Brussel

*Purpose:* We developed an interactive virtual task-dependent platform that provides motivational exercises in extra-personal space combining a physical (postural or motor) response with perceptual and cognitive task-dependent challenges in a virtual environment.

*Methods:* We used a cognitive visual search task that contained different stages that were graded according to both their difficulty and the cognitive factors to be evaluated. This cognitive task is presented on a HD flatscreen 5 m in front of the patient. We utilizes a time-of-flight (TOF) camera that can track the full body movement of a patient in three dimensions.

*Results:* All gross postural/motor movements, like body posture adjustments, arm movements, standing up, sitting down, walking, within a  $5 \times 5$  m area can be traced by the system in a  $176 \times 144$  pixel array in interaction with the cognitive tasks on the flatscreen. The camera input is converted by specially designed software to interpret the patient's movements and convert these into the task elements shown on the screen.

*Conclusion:* Our virtual interactive task-dependent platform provides reliable exercises for the patient in extra-personal space combining a physical (postural or motor) response with perceptual and cognitive task-dependent challenges in a virtual environment. By combining a postural or motor response to explore and to react on presented stimuli in far space, this platform more closely approximate the everyday multitasking nature of functional performance.

Acknowledgements: This study was funded in part by the Lundbeck Geriatric Medicine Grant Belgium.

## **25. Older parents' experiences following a serious illness trajectory of an adult child: a review of the literature**

Liesbeth Van Humbeeck<sup>a</sup>, Sigrid Van Camp<sup>a</sup>, Ruth Piers<sup>a</sup>, Let Dillen<sup>b</sup>, Sofie Verhaeghe, Nele Van Den Noortgate<sup>a</sup>

<sup>a</sup> Department of Geriatrics, Ghent University Hospital, Gent

<sup>b</sup> Oncology Centre, Ghent University Hospital,

*Purpose:* Given the increasing life expectancy, the likelihood increases that health care providers are confronted with older people having an adult child with a life-limiting illness. This literature review aimed (1) to explore the experiences of older parents in relation with their position and role as a parent of an adult child with a life-limiting illness, (2) to detect gaps in the existing literature and to make recommendations for future research.

*Methods:* Studies were identified by searching four electronic databases including: Web of Science, MEDLINE, CINAHL and Google Scholar. In total, 29 published studies were included.

*Results:* Few studies describe the experiences of older people having an adult child with cancer, or having an adult child who died from cancer. From the moment the cancer diagnosis is disclosed, parents are confronted with a reawakening of the parental nurturing which clashes with the autonomy of the adult child. Even after the adult child is deceased, older parents retain the image of themselves as parents. The included studies are merely descriptive and give no concrete recommendations for health care providers in daily practice. No intervention studies were found.

*Conclusion:* In the current literature little is known about this topic. Limited research exists to provide concrete recommendations for health care providers in daily practice and helpful family-centred interventions. There is need for more in-depth research to understand the lived experience of these parents and what health care providers can do to assist these older people.

## **26. An occupational therapist as a new professional at home: which profile of client is concerned?**

Maggi Patrick<sup>a</sup>, de Almeida Mello Johanna<sup>b</sup>, Delye Sam<sup>a</sup>, Van Durme Thérèse, Macq Jean, Cès Sophie, Declercq Anja<sup>b</sup>, Gosset Christiane<sup>a</sup>

<sup>a</sup> University of Liège, Département des sciences de la santé publique; <sup>b</sup> Katholieke Universiteit Leuven, LUCAS

*Purpose:* The Belgian National Institute for Health and Disability Insurance (NIHDI) wishes to evaluate 63 innovative projects in the elderly care sector. Among these projects, 8 of them propose occupational therapy services at home. The purpose of this study is to analyze the profile of clients who receive occupational therapy at home and to determine whether this type of intervention is useful in terms of improving functional status (ADL and IADL) and perceived burden by a prospective informal caregiver.

*Methods:* In order to collect information, two instruments are used: the Zarit Burden Scale and the interRAI Home Care instrument. These instruments are filled out every 6 months. The population of this study is composed by 621 persons.

*Results:* The average age of the population is 76 years old with a majority of female (67 %). 44 % of patients lives alone [95%CI: 40–44] and 50 % [95%CI: 46–54] has a moderate to an extreme dependency for ADL. 55,77 % [95%CI: 51,66–59,88] and 51,51 % [95%CI: 47,38–55,64] of patients has respectively an extensive assistance for IADL Capacity and IADL Performance. 31 % [95%CI: 27–34] has a moderate to a severe cognitive decline. 63 % [95%CI: 59–67] of informal caregivers perceive burden.

*Conclusion:* Patients benefiting from occupational therapy have mainly troubles with the activities of daily living. A large percentage of their caregivers perceives burden from giving care. The next step consists on comparing this sample with a control group to show whether occupational therapy at home improves the quality of life, functional status and perceived burden by a prospective informal caregiver.

## **27. De zorg voor de kwetsbare oudere op niet-geriatrie afdelingen**

Ludo Meersdom, Corry Deschamps, Hilde Dewaele, Hilde Malfait, Maité Roesbeke, Linda Santy, Kathy Vanhoutte, Lieselotte Vermeulen (GST = geriatrie support team AZ Groeninge Kortrijk)

*Doel:* Streven naar een uniforme en optimale benadering van de kwetsbare oudere.

*Methodologie:* Uit bezorgdheid niet aan de hulpvraag te kunnen voldoen, werd een frailtygids opgemaakt door het GST. Deze gids is een hulpmiddel om de kwetsbaarheid bij de oudere te herkennen, te signaleren en aan te pakken. Indien deze "kwetsbaarheden" niet opgemerkt worden, kan de oudere patiënt vrij snel geconfronteerd worden met functieverlies en afhankelijkheid. Alle verpleegkundigen kregen een opleiding over het screenen van het geriatrie risicoprofiel en de wijze waarop het GST kan ingeschakeld worden. De referentieverpleegkundigen geriatrie kregen een bijkomende opleiding over het gebruik van de frailtygids. Om de kwetsbaarheid bij de oudere blijvend onder de aandacht te brengen werd een ziekenhuisbrede postercampagne "LOOK 4 FRAILTY" opgestart. De campagne loopt van mei 2012 tot juni 2013. Aan de hand van een cartoon met daarbijhorende folder wordt maandelijks een item uit de frailtygids in de kijker gezet.

*Resultaten:* De frailtygids is in grote lijnen gekend door de teams, maar wordt niet vaak gebruikt als tool. De postercampagne als ondersteunende maatregel blijkt zijn effect te hebben als blikvanger. De teams op de verpleegafdelingen weten dat de campagne dient om de kwetsbare oudere in het daglicht te stellen. De specifieke maandelijkse items zijn echter niet gekend.

*Conclusie:* Het geriatrie gedachtegoed verspreiden is een proces in evolutie en een werk van lange adem: herhalen, doorzetten en volhouden. De referentieverpleegkundigen geriatrie zijn een onmisbare schakel tussen de teams en het GST. Coaching van de referentieverpleegkundigen en hun teams door het GST is essentieel.

## **28. Medicatiegebruik bij geriatrie patiënten op niet-geriatrie diensten.**

Perkisas Stany, Vandewoude Maurits ZNA Sint-Elisabeth, Universiteit Antwerpen

*Doel:* Polyfarmacie, gedefinieerd als het gebruik van 5 of meer medicaties, is een frequent probleem bij de geriatrie patiënt. Tijdens hospitalisaties wordt hier onvoldoende aandacht aan besteed. Er wordt niet stevast gescreend op overbodige/tegenstrijdige medicaties. Met deze studie willen we nagaan in hoeverre polyfarmacie een probleem is.

*Methodologie:* Op verschillende afdelingen (Cardiologie/Endocrinologie/Gastro-Enterologie/Pneumologie/Intensieve Zorgen) binnen verschillende algemene ziekenhuizen werden 100 gehospitaliseerde 70-plussers met een geriatrie profiel geregistreerd. Reeds geïnstitutionaliseerde patiënten werden geëxcludeerd. Medicatiegebruik (bij opname/ontslag), MNA (Mini Nutritional Assessment), BMI, comorbiditeiten en nutritionele laboratoriumparameters werden bepaald.

*Resultaten:* De gemiddelde leeftijd bedroeg  $80.1 \pm 5.4$  jaar. Van de 100 patiënten waren er 49 vrouwen. In totaal waren er 28 personen met diabetes (enkel type 2), waarvan 16 % enkel orale medicatie nam. De gemiddelde medicatie-inname bij opname bedroeg 7 (range 1–18), deze bij ontslag 9 (range 0–20). Voor niet-diabetici bedroeg de inname respectievelijk 7 en 9 medicaties, voor diabetici bedroeg deze 11 en 13 ( $p \leq 0,01$ ). Er was geen verschil in medicatiegebruik (aantal) bij opdeling volgens voedingsstatus, wel indien werd opgedeeld volgens cognitie. Niet-dementen namen minder medicaties in dan mild/ernstig dementerenden ( $p \leq 0,05$ ).

*Conclusie:* Polyfarmacie is een zeer frequente en actuele problematiek bij geriatrische patiënten op algemene internistische afdelingen. Het gaat gepaard met een verhoogde kans op interacties/neveneffecten en een verminderde therapietrouw. Niettegenstaande de reeds aanwezige polyfarmacie werd het aantal medicaties tijdens de opname nog verhoogd. Diabetespatiënten en patiënten met cognitieve stoornissen hadden zowel bij opname als ontslag een significant hoger aantal medicaties. Er wordt gewezen op het belang van doorgedreven sensibilisering en aandacht voor deze problematiek.

### **29. Epidemiology of Extended-Spectrum Beta-Lactamase Producing Escherichia coli Amongst Nursing Home Residents: Results From a Belgian Nationwide Survey**

Schoevaerds D.<sup>a</sup>, Jans B.<sup>b</sup>, Berhin C.<sup>a</sup>, Huang TD.<sup>a</sup>, Bogaerts P.<sup>a</sup>, Latour K.<sup>b</sup>, Catry B.<sup>b</sup>, Denis O.<sup>c</sup>, Lupczynski Y.<sup>a</sup>

<sup>a</sup> CHU UCL Mont-Godinne-Dinant, 5530 Yvoir, Belgium; <sup>b</sup> Scientific Institute of Public Health, Brussels, Belgium; <sup>c</sup>Hôpital Erasme Brussels

*Purpose:* To determine the prevalence and risk factors of carriage of Extended-Spectrum Beta-Lactamase producing Escherichia coli (ESBL-EC) amongst nursing home (NH) residents in Belgium.

*Methods:* In 2011, we performed a cross-sectional survey in a sample of residents from 60 NH. Rectal swabs were obtained for culture on selective chromogenic agar and broth enrichment. Identification and susceptibility testing of the target pathogen was performed according to conventional laboratory methods. Genotypic characterisation of resistance determinants was performed by multiplex PCR assays.

*Results:* The weighted prevalence of ESBL-EC amongst the 2610 screened residents was 5.7 % (95%CI: 5.1–6.3 %), ranging between 0–19 %. The majority of ESBL-EC were carrying CTX-M Group 1 ( $n = 105$ ; 52 %) and CTX-M group 9 ( $n = 31$ ; 19 %). Using univariate analysis, we identified the following risk factors for ESBL-EC carriage (type I error < 0.05): male gender, low level of mobility, chronic bladder catheter, COPD, previously known ESBL carriage, previous hospital stay (12 months) and antibiotic exposure (3 months). Using multiple logistic regression, the best predictors of ESBL-EC colonization were male gender (Adjusted Odds Ratio [adj. OR]: 1.6; 95%CI: 1.1–2.3;  $P < 0.012$ ), mobility impairment (adj. OR: 2.0; 95%CI: 1.4–2.7;  $P < 0.001$ ) and previous ESBL carriage (adj. OR: 8.7; 95%CI: 1.4–51.2;  $P: 0.020$ ).

*Conclusion:* In this study, the prevalence of ESBL-EC carriage in NH residents appeared less important in Belgium than reported in other countries. These results suggest that screening of ESBL-EC amongst NH residents is currently not indicated on a routine basis.

### **30. Moving in later life: social inequalities among older adults.**

Smetcoren An-Sofie, Nico De Witte, Liesbeth De Donder, Sarah Dury, Tine Buffel, Tinie Kardol, Dominique Verté

*Purpose:* The aim of this study is threefold. First, it examines whether moving at old age is associated with individual characteristics, including socio-demographic variables, physical health, marital status and income. Second, the study investigates the relationship between environmental variables and the decision to move in old age. Third, the main reasons why older people decided to relocate in the past 10 years are addressed, linking these with individual characteristics.

*Methods:* The data are derived from the Belgian Ageing Studies, consisting of people aged 60 and over ( $n = 63.075$ ) living in 138 municipalities across Belgium. In order to answer the research questions, frequencies and bivariate analyses are performed.

*Results:* 14 % of respondents have moved within the last 10 years. The results indicate that recent movers have a lower income, a poorer physical health, and they are more likely to be divorced or cohabiting compared to people who did not move in the last decade. Moving to a more pleasant environment (pull-factor) was the main reason why older people decided to move in the past 10 years. Second and third most important reasons were problems concerning health (push-factor), and problems relating to the previous housing situation (push-factor). Additionally, individual differences in moving reasons are examined.

*Conclusions:* The results suggest that there are different reasons for moving for different groups, and that attention should be drawn to the difference of being forced to move' versus being able to move'. The findings reveal the various multidimensional inequalities among movers in later life.

### **31. Wachlijsten in Vlaamse woonzorgcentra, de weg naar meer transparantie**

Michael Van Buggenhout<sup>a,b</sup>, Sofie Dierckxsens<sup>a</sup>, Bart Van Rompaey<sup>a,c</sup>

<sup>a</sup> Universiteit Antwerpen, Vakgroep Verpleegkunde en Vroedkunde; <sup>b</sup> Ablecare bvba (research, consultancy & education); <sup>c</sup> Artesis Hogeschool Antwerpen, opleiding verpleegkunde

*Doel:* Vermits er geen up-to-date overzicht beschikbaar was van het aantal ouderen die in Vlaanderen op zorg wachtten, werd een Vlaams georiënteerd onderzoek gestart. De doelstelling van het onderzoek was het in kaart brengen van de huidige situatie.

*Methodologie:* De studie was een kwantitatief, cross-sectioneel onderzoek waarbij alle Vlaamse woonzorgcentra werden uitgenodigd.

*Resultaten:* Er werd een respons van 32 % gerealiseerd. In totaal hadden 37 776 ouderen zich ingeschreven op een wachtlijst, met gemiddeld 213 ouderen per voorziening. Als we deze cijfers voorzichtig generaliseren (volgens het aantal voorzieningen) naar gans Vlaanderen, dan kan er vastgesteld worden dat er 162629 ouderen in Vlaanderen op een wachtlijst staan. Het aantal wachtende ouderen werd beïnvloed door het aantal bedden, het beheer van twee soorten wachtlijsten, een wachttijd langer dan zes maanden, de vzw-structuur en het altijd voorzien van een rondleiding. Slechts 2 % van de Vlaamse woonzorgcentra verklaarde dat er geen wachttijd was. Bij 24 % van de woonzorgcentra wachtten ouderen minder dan drie maanden. 74 % gaf aan dat de wachttijd langer was, waarbij 19 % langer dan één jaar moest wachten. De provincie Antwerpen, het aantal wachtenden, de vzw-structuur en het aantal bedden speelden een belangrijke rol bij de wachttijd. Tenslotte gaf 51 % mee tegen elke vorm van centrale toewijzing te zijn.

*Conclusie:* Er staan vandaag gemiddeld een kwart meer ouderen op de wachtlijst van Vlaamse woonzorgcentra dan 4 jaar geleden. Een discussie over opnamebeleid en beheer van de lijsten dringt zich op. Woonzorgcentra gaven duidelijk aan dat ze hun autonomie voor het opnamebeleid willen behouden.

### **32. Zorg aan het Levenseinde van de Geriatrische Patiënt: Vergelijking tussen de dienst Acute Geriatrie en de Palliatieve Eenheid**

Cools Annelies, Vanechoutte Delphine, Van Den Noortgate Nele, Piers Ruth, Versluys Karen, Petrovic Mirko

*Doel:* De kwaliteit van zorg (KvZ) aan het levenseinde van de geriatrische patiënt in kaart brengen d.m.v. kwaliteitsindicatoren (Quality Indicators, QIs) en knelpunten in de zorg nagaan door het vergelijken van de KvZ op de Acute Geriatrie (AG) en de Palliatieve Eenheid (PE) van het UZ Gent.

*Methodologie:* Via systematisch literatuuronderzoek en Delphi-methode werd een set van 17 QIs verzameld. Op basis hiervan werd de KvZ gemeten in een retrospectieve dossierstudie. Respectievelijk werden 58 en 59 patiënten  $\geq 75$  jaar, overleden tussen januari 2009 en December 2010 op de AG of de PE, met een therapiebeperkingscode  $\geq 2$  en een opnameduur  $\geq 48$ u geïncludeerd. Significante verschillen tussen beide diensten werden nagegaan d.m.v. de Pearson Chi kwadraat test ( $p < 0.05$ ).

*Resultaten:* Algemeen werd voor de verschillende QIs op de AG een score behaald tussen 0 en 70 % en voor de PE tussen 50 en 100 %. De PE scoorde significant hoger op 5 van de 17 QIs, meer bepaald voor de QIs betreffende pijnscreening ( $p < .001$ ), pijnbehandeling ( $p < .01$ ), het voorschrijven van noodmedicatie ( $p < .01$ ), mondzorg ( $p < .001$ ) en angstscreening ( $p < .001$ ). Beide diensten scoorden laag voor de QIs betreffende deliriumscreening (0.0 %, 0.0 %), spirituele zorg (41.9 %, 54.5 %) en het betrekken van de huisarts bij de zorgplanning (19.0 %, 1.7 %).

*Conclusie:* Hoewel beide diensten op een aantal QIs goed scoren, kan het palliatief beleid geoptimaliseerd worden. Systematische registratie van items als pijn, mondzorg en angst op de AG en delirium en spirituele aspecten op beide

diensten kan de KvZ aan het levenseinde optimaliseren.

### **33. Reduction of inappropriate prescribing in older persons: the significance of the new RASP criteria**

Lorenz Van der Linden<sup>a</sup>, Liesbeth Decoutere, Johan Flamaing, Isabel Spriet<sup>a</sup>, Ludo Willems<sup>a</sup>, Koen Milisen, Steven Boonen, Jos Tournoy

<sup>a</sup> Pharmacy Department, University Hospitals Leuven & Department of Pharmaceutical and Pharmacological Sciences, KU Leuven

*Purpose:* It remains unclear which intervention(s) should be used to optimize pharmacotherapy in older patients. As existing instruments did not meet current needs, we developed and validated the RASP list (Rationalization of home medication by an Adjusted STOPP list in older Patients). Here, we aim to study the impact of the implementation of these criteria on acute geriatric wards.

*Methods:* In a prospective cluster-randomized controlled trial, 214 patients were included. Interventions consisted of a pharmaceutical care plan, which was based on but not limited to the RASP list. Interventions were discussed with the treating geriatrician. The control group received standard care. The primary and co-primary endpoint were the number of stopped or reduced drugs and the actual number of drugs on discharge respectively. Follow-up data were collected at 1 and 3 months after discharge.

*Results:* In total, 172 patients were included in the analysis, of which 91 patients were assigned to the intervention arm and 81 to the control arm. On discharge, 39 % more drugs were stopped or reduced in the RASP group; for every 8 drugs on admission 1 extra drug was stopped or reduced on discharge ( $p < 0.001$ ). The number of drugs on discharge was lowered with 14.6 % ( $p < 0.05$ ), but only after correction for new calcium and vitamin D treatment, which was started more in the intervention group ( $p < 0.05$ ). The effects remained significant 3 months after discharge.

*Conclusion:* RASP criteria significantly reduced inappropriate prescribing in geriatric inpatients. This effect remained statistically significant 3 months after discharge.

### **34. Case management projects for maintaining frail older people at home: a nested analysis within the framework of the evaluation of Protocol 3 projects**

Van Durme Thérèse, Macq Jean, Lopez Hartmann Maja, Remmen Roy, Maggi Patrick, Delye Sam, Gosset Christiane, Schmitz Olivier

*Purpose:* to investigate whether and which type of the 21 case management projects of Protocol 3 are effective to delay institutionalization of frail elderly living at home, while having a positive impact on other outcomes, i.e. quality of life, functional status and caregiver perceived burden. As case management projects are the most complex interventions, the methodology will be useful to evaluate the remaining projects.

*Methods:* Following a mixed methods design, the impact of the projects was investigated through an implementation and effectiveness analysis. A primary in-depth analysis of five projects, using a case study methodology, allowed a precise description of the components, interaction patterns and level of implementation of these projects. Secondly, based on Wagner's Chronic Care Model and first results of the implementation and effectiveness analysis, quality indicators were constructed, to further identify the determinants and mechanisms of the projects' impact on frail older persons' outcomes. Determinants were tested by the means of a regression analysis.

*Results:* New data extraction and analysis about the 21 projects will be performed in January 2013 and updated results will then be available. A data extraction of August 2012 showed usable data for 2059 frail older persons. This number is expected to increase in the further course of the study, as more frail older persons are constantly included in the projects.



*Conclusion:* Following the results, we will be able to show if, and which components and mechanisms of case management projects will be likely determinant to impact outcomes of frail older persons.

### **35. De opbouw van een referentiekader integrale kwaliteit van wonen en zorg in Vlaamse woonzorgcentra: een kritische evaluatie.**

Liza Van Eenoo, Nele Spruytte, Koen Hermans, Anja Declercq en Chantal Van Audenhove

Katholieke Universiteit Leuven, LUCAS – Centrum voor zorgonderzoek & consultancy

*Doel:* LUCAS ontwikkelde in samenwerking met de ouderensector en in opdracht van het Vlaams Agentschap Zorg & Gezondheid een referentiekader integrale kwaliteit van wonen en zorg in de Vlaamse woonzorgcentra. De primaire doelstelling bestaat erin om kwaliteitsverbetering in de woonzorgcentra te stimuleren.

*Methodologie:* Uit de literatuur zijn 122 resultaatgeörienteerde indicatoren geselecteerd, verdeeld in drie thema's: (1) kwaliteit van zorg en veiligheid, (2) kwaliteit van leven en (3) kwaliteit van zorgverleners en zorgorganisaties. Tijdens focusgroepen met vertegenwoordigers van gebruikers, familieleden, zorgmedewerkers, de koepelorganisaties en de overheid, is op basis van noodzakelijkheid en haalbaarheid voor de zorgpraktijk een eerste selectie gebeurd. Dit resulteerde in een referentiekader met 27 doelstellingen. In een pilootstudie zijn de doelstellingen uit thema 1 en 3 verder uitgewerkt tot een instrument met 21 indicatoren. Resultaten: De ontwikkelde indicatoren vormen een goede eerste operationalisering van het referentiekader integrale kwaliteit. Vanuit wetenschappelijk oogpunt zijn kritische aanbevelingen te formuleren. Zo bestrijken de geselecteerde indicatoren niet alle theoretisch-noodzakelijke dimensies van kwaliteit van zorg van kwetsbare ouderen. Daarnaast is verdere psychometrische ontwikkeling van het instrument noodzakelijk en dient er een plan over het optimaal gebruik van indicatoren in de werking van woonzorgcentra uitgewerkt te worden.

*Conclusie:* Het referentiekader integrale kwaliteit van wonen en zorg en de eerste set van indicatoren zijn een waardevol instrument om van start te gaan met het monitoren van de kwaliteit van zorg in de woonzorgcentra. Om van een wetenschappelijk optimaal instrument te spreken, is het belangrijk dat het verder ontwikkeld wordt zowel inhoudelijk, psychometrisch als inzake praktische hanteerbaarheid.

### **36. Older parents' experiences during a serious illness trajectory and after the death of an adult child: results of a qualitative study**

Liesbeth Van Humbeeck, Ruth Piers, Let Dillen, Karen Versluys, Mieke Grypdonck, Sofie Verhaeghe, Nele Van Den Noortgate

Department of Geriatrics, Ghent University Hospital, Ghent; Oncology Centre, Ghent University Hospital,

*Purpose:* Increased life expectancy enhances the likelihood that older people face a serious illness in an adult child and even will outlive their child. We aimed to explore the lived experience of these parents.

*Methods:* Qualitative study using narrative interviews with older parents ( $\geq 70$  years). Analysis was based on the principles of grounded theory.

*Results:* Older parents are exposed to a multitude of feelings, which are often contained in the presence of their sick child, in order not to stimulate the others' suffering. Most participants resume their parental responsibilities by means of 'being there', in many forms and intensities, influenced by several factors i.e. their relationship history, their degree of care dependency and marital status of the adult child. Envisaged parenting is complicated since the partner of the child is frequently taking the position they once occupied. The death of an adult child is a life-altering event after which feelings of survivor's guilt coexist with an increased awareness of their own impending death. The parents hold on to memories and continued encounters with their deceased child. They want to talk about their deceased child but do not always have the opportunity to do so.

*Conclusion:* Aged parents carry deep burdens from the prospect of losing their child. Mutual protection is an important phenomenon in this context wherein health care providers can stimulate open communication. After the death of the adult child, the parents continue to face difficulties and experience a major impact on their daily functioning.

### **37. Attitudes bij verpleegkundigen met betrekking tot het gebruik van psychofarmaca bij geriatrische**

### **patiënten: ontwikkeling van een meetschaal**

Ruben Vanbosseghem<sup>a</sup>, Mirko Petrovic<sup>ab</sup>, Els Steeman<sup>a</sup>, Karen Versluys<sup>b</sup>

<sup>a</sup> Universiteit Gent

<sup>b</sup> Universitair Ziekenhuis Gent

*Doel:* Het ontwikkelen van een valide en betrouwbare Nederlandstalige attitudemeetschaal voor verpleegkundigen met betrekking tot de toediening van psychofarmaca bij ouderen.

*Methodologie:* Het meetinstrument werd ontwikkeld op basis van een systematisch literatuuronderzoek. Aan de hand van een Delphiprocedure werd de inhoudsvaliditeit van de items van het instrument beoordeeld. De psychometrische evaluatie werd uitgevoerd aan de hand van een factoranalyse en de beoordeling van de construct validiteit, stabiliteit en betrouwbaarheid van het instrument. Hiervoor werd het meetinstrument ingevuld door een convenience sample van 202 verpleegkundigen en 212 studenten verpleegkunde in 12 Vlaamse ziekenhuizen en acht Vlaamse hogescholen.

*Resultaten:* Uit de factoranalyse werd een instrument opgemaakt, bestaande uit 16 items die onder te verdelen zijn in vier subschalen en in totaal 49,98 % van de variantie verklaren. Deze subschalen omvatten de attitudes met betrekking tot 'gerechtvaardigde indicaties' (zeven items), 'externe beïnvloeding' (vier items), 'beheersing van de situatie' (vier items) en 'bewustzijn van potentiële risico's' (één item) van psychofarmacagebruik. Het instrument is stabiel (ICC: 0,71;  $p < 0,001$ ) en heeft een interne consistentie van 0,74. In de known groups technique werden twee van de negen vooropgestelde hypothesen significant bevestigd ( $p < 0,05$ ) en één hypothese werd 'borderline missed' significant bevestigd ( $p:0,06$ ). Bij twee hypothesen werd een tegengesteld resultaat bekomen dan verwacht, waarvan één significant ( $p:0,001$ ) en één 'borderline missed' significant ( $p:0,083$ ).

*Conclusie:* Het instrument meet de attitudes van verpleegkundigen ten aanzien van het toedienen van psychofarmaca bij ouderen op een effectieve manier. Verder onderzoek is aangewezen om de resterende variantie te kunnen verklaren en het meetinstrument te optimaliseren.

### **38. Prevalentie van eenzaamheid bij 65-plussers in België**

Vermeulen Bram<sup>a</sup>, Maggi Patrick<sup>b</sup>, Delye Sam<sup>b</sup>, Vandenbroucke Sylvia<sup>c</sup>, Gosset Christiane<sup>b</sup>, Declercq Anja<sup>a</sup>

<sup>a</sup> LUCAS – Centrum voor zorgonderzoek en consultancy, Katholieke Universiteit Leuven

<sup>b</sup> Département des sciences de la santé publique, Université de Liège <sup>c</sup> Ipsos

*Doel:* (1) Wat is de prevalentie van eenzaamheid bij 65-plussers? (2) Voelen ouderen zich vandaag vaker eenzaam dan vroeger?

*Methodologie:* We vergelijken twee representatieve steekproeven bij 65-plussers uit 2000 en 2011 waarin de eenzaamheidsschaal van de Jong Gierveld face-to-face is afgenomen. Voor 2000 zijn de data afkomstig van het Panel Survey Belgische Huishoudens ( $n = 1090$ , exclusief ouderen in woonzorgcentra), voor 2011 van een survey in opdracht van de Koning Boudewijnstichting ( $n = 1507$ , inclusief ouderen in woonzorgcentra).

*Resultaten:* (1) In 2011 voelde 46,7 % zich eenzaam (38,3 % matig; 5,81 % ernstig; 2,6 % zeer ernstig eenzaam). Dit zijn naar schatting 869.000 eenzame 65-plussers, inclusief ouderen in woonzorgcentra (95 % BI 817.000–921.000). (2) In 2000 was 49,8 % van de thuiswonende 65-plussers eenzaam. Onder controle van leeftijd, geslacht en regio verschilt de prevalentie van eenzaamheid in 2000 niet significant met 2011 (OR 1.15, 95 % BI 0.97–1.36).

*Conclusie:* In 2011 bedraagt de prevalentie van eenzaamheid bij 65-plussers 46,7 %, maar er is geen sprake van een stijgende trend. Deze conclusie sluit aan bij andere Europese onderzoeksresultaten. Door de vergrijzing neemt het absoluut aantal eenzame ouderen wel toe. Als het percentage eenzame ouderen op hetzelfde niveau blijft in België, dan zullen er tegen 2020 meer dan een miljoen 65-plussers eenzaam zijn.

## **Auteurs**

### ***Belgische Vereniging voor Gerontologie en Geriatrie***

Belgische Vereniging voor Gerontologie en Geriatrie

<https://geriatrie.be/nl/>

---