patients hospitalised due to an ischemic stroke, in relation to their age.

Material and methods.– The research was carried out on patients of the Neurology Clinic of the PMU, who had been diagnosed with ischemic stroke. The patients involved in the research met the following criteria: positive history of dyslipidemia and arterial hypertension, negative history of an ischemic stroke during the last 6 months preceding the current episode, as well as lack of other diseases (except for dyslipidemia and arterial hypertension) perceived as risk factors for an ischemic stroke. Patients were divided into 3 groups, depending on their age: the first group included patients between the age of 60 and 70, the second group was composed of patients from 71 to 80 years, whereas people older than 81 years constituted the third group. Blood samples were taken from all patients on the 4th day following the stroke in order to evaluate the GPx and GR activity, as well as the GSH concentration. The statistical analysis of the test results was based on the U-Man Whitney test and Spearman's rank correlation coefficient. Values not exceeding $P < 0.05$ were considered as statistically significant.

Results.– The highest activity of GPx was reported among the oldest patients, although no statistically significant differences were observed between particular groups. No relation was noted between age and GR activity. The oldest group of patients revealed the lowest GSH concentration. Simultaneously, the study showed the presence of a statistically significant difference in GSH concentration between the second and the third age group ($P < 0.05$).

Conclusions.– The highest GPx activity among the oldest patients may signify that the strongest and maybe the most effective anti-oxidative processes occur within this group of patients. The indication of the lowest GSH concentration values in the same group seems to confirm this hypothesis.

<http://dx.doi.org/10.1016/j.eurger.2013.07.280>

P217

The association between functional status and health care cost in community dwelling older persons

M. van Rijn, J.J. Suijker, E.P. Moll van Charante, S.E. de Rooij, B.M. Buurman

Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands

Introduction.– Functional decline is common in community dwelling older persons. There is however a limited knowledge on the health care expenditures associated with functional decline over 1 year. The aim of this study was to examine the relationship between functional transitions over 12 months and the related health care expenditures in community dwelling older persons.

Methods.– A prospective cohort study conducted between 2010 and 2011 in 10 general practices with 2026 community dwelling older persons, aged more or equal to 70 years. They were interviewed at baseline and 12 months, including their functioning measured with the modified Katz-ADL index. Health care utilization consisted of GP care, hospital admission, home care and institutionalization. Based on their functioning, participants were divided into four groups: stable independent ($n = 869$), stable limitations ($n = 350$), functional decline ($n = 484$) and improvement in functional status ($n = 296$). Linear regression analyses were conducted to study the association between functional transitions and health care expenditures.

Results.– Participants had a mean age of 77.3 years and 54% were women. Total health care costs of the stable independence participants were €874 (reference population). Participants with functional decline have an additional €2376 ($P \leq 0.001$) in total health care costs, compared to the reference population.

Conclusion.– Twenty-four percent of the community dwelling older persons show functional decline and 17% stable limitations that accounted for at least twice of the total expenditures. According to

these results; prevention or delay of functional decline may contribute to cost reduction in healthcare.

<http://dx.doi.org/10.1016/j.eurger.2013.07.281>

P218

Prevalence of geriatric conditions, priorities and tailor-made care plans in community dwelling older persons

M. van Rijn, J.J. Suijker, E.P. Moll van Charante, S.E. de Rooij, B.M. Buurman

Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands

Introduction.– The effectiveness of interventions to prevent functional decline in community dwelling elderly is inconclusive. To understand the results of a preventive intervention, it is important to conduct a process evaluation, measuring the compliance with the intervention. The aim of this study is to examine the prevalence and prioritization of geriatric conditions and the tailor-made care plans (TMCPs) in a multifactorial intervention to prevent functional decline in community dwelling older persons.

Methods.– In community dwelling older persons aged more or equal to 70 years, a CGA was conducted and a TMCP addressing retrieved conditions was made by a registered nurse. The geriatric conditions, including recognition and prioritization by the older person and the TMCPs, were analyzed on the basis of score sheets, based on quality indicators.

Results.– Eight hundred and thirty-five CGA's and TMCPs were analyzed in detail. In total 6.4 conditions per older person were identified. The three most prevalent identified conditions were: limitations in (instrumental) activities of daily living (53.3%), polypharmacy (40.7%), and depressive symptoms (38.0%). The older person recognized 45.8% of the identified problems, subsequently 78.1% gave priority to further treatment. After prioritization, 1.4 of the identified conditions resulted in a TMCP. Most interventions consisted of advices, paramedic referral and referral to a general practitioner.

Conclusion.– These results show that many geriatric conditions were found using a CGA. Prioritization by patients causes a large reduction in the number of problems resulting in a TMCP.

<http://dx.doi.org/10.1016/j.eurger.2013.07.282>

P219

Older adults admitted to the emergency department (ED): Risk factors for unplanned ED readmission

M. Deschodt^{a,b}, E. Devriendt^{a,b}, M. Sabbe^c, J.B. Gillet^c, D. Knockaert^d, S. Boonen^{b,e}, J. Flamaing^b, K. Milisen^{a,b}

^a Health Services and Nursing Research, KU Leuven, Belgium

^b Geriatric Medicine, University Hospitals Leuven, Belgium

^c Emergency Medicine, University Hospitals Leuven, Belgium

^d General Internal Medicine, University Hospitals Leuven, Belgium

^e Leuven University Center for Metabolic Bone Diseases, KU Leuven, Belgium

Introduction.– Currently, about 12% of the patients admitted to the ED is 75 years or older. Older persons often have atypical and complex medical and psychosocial problems that may complicate ED care and follow-up. This study aimed to determine which patient characteristics are predictive for unplanned ED readmission.

Methods.– An observational study with 3 months follow-up was conducted on the ED of a university hospital. A comprehensive geriatric assessment (CGA) including demographic data, medical data, functional and mental status, pain and nutrition was executed. Descriptive and comparative analyses were performed for

all included patients and subgroups. Determination of predictors was done by multivariable binary logistic regression.

Results.– Four hundred and forty-two people aged 75 years or older were included in the study, 73.5% ($n=325$) were admitted to the hospital, of which 35.1% ($n=114$) were admitted to an acute geriatric ward. Of the patients being discharged from the ED, 26.5% (31/117) had an unplanned ED revisit within 3 months. Nursing care at home (OR 4.63, 95% CI 1.45–14.77) and depression (OR 3.91, 95% CI 1.16–13.19) were found to be independent predictors for unplanned ED readmission in the multivariable analysis. A significant trend was found for falls in the last year (OR 2.99, 95% CI 0.95–9.37).

Conclusion.– This study confirms the high readmission rates of older persons being discharged from the ED and suggests the potential value of multidisciplinary, psychosocial and functional assessment, interventions and follow-up to avoid early-unplanned ED readmissions.

<http://dx.doi.org/10.1016/j.eurger.2013.07.283>

P220

Intra-rater reproducibility and validity of Nintendo Wii balance testing in community-dwelling older adults

M.G. Jorgensen^{a,e}, U. Laessoe^{b,c},
C. Hendriksen^{d,e}, O.B.F. Nielsen^a,
P. Aagaard^{a,b,c,d,e}

^a Department of Geriatrics, Aalborg University Hospital, Denmark

^b Center for Sensory-Motor Interaction, Department of Health Science and Technology, Aalborg University, Aalborg, Denmark

^c Physiotherapy Department, University College of Northern Denmark, Aalborg, Denmark

^d Department of Integrated Health Care, Bispebjerg University Hospital, Copenhagen, Denmark

^e Department of Public Health, University of Denmark, Denmark

Introduction.– Objective assessment of postural balance (PB) utilizing the force plate technique is expensive, immobile and technically difficult to operate. The Nintendo Wii Balance Board (Minami-ku Kyoto, Japan) on the other hand is a low-cost, portable and easy-to-use biometric system potentially capable of objectively evaluating PB in older adults. Presently reproducibility and concurrent validity of standard build-in Nintendo Wii software has not been examined in community-dwelling older adults. The aims of the current study were to: examine the intra-rater inter-session reproducibility of the Wii Agility and Stillness tests; and explore the concurrent validity in relation to “gold-standard” force plate analysis.

Methods.– Within-day inter-session reproducibility was examined in 30 community-dwelling older adults (age 71.8 ± 5.1 years.), expressed by intra-class correlation coefficients (ICC), coefficient of variance (CV) and 95% limits of agreement (LOA).

Results.– No systematic test-retest differences was found for the Wii Stillness test, however, the Wii Agility scores differed systematically between test sessions ($P < 0.05$). The Wii Stillness test yielded a test-retest ICC of 0.86 (95% CI 0.74–0.93), CV of 6.4%, LOA of 11.0 and LOA% of 17.9%. Likewise for the Wii Agility test ICC was 0.73 (95% CI 0.50–0.86), CV 5.3%, LOA 1.8 and LOA% of 14.6%. Wii Stillness scores correlated to force plate measures ($r = 0.65$ – 0.82 , $P < 0.01$), reflecting moderate-to-excellent validity.

Key conclusions.– The Wii Stillness test represents a low-cost objective reproducible and valid test of postural balance in community-dwelling older adults. Familiarization procedures should be employed for the Wii Agility test to avoid a test-retest learning effect.

<http://dx.doi.org/10.1016/j.eurger.2013.07.284>

P221

The Turkish nursing homes and care homes sarcopenia assessment project (THN-Sarcopenia)

M. Halil^a, Z. Ulger^b, M. Varlı^c, A. Döventaş^d,
G.B. Oztürk^e, M.E. Kuyumcu^a, B.B. Yavuz^a,
Y. Yesil^a, F. Tufan^e, M. Cankurtaran^a, B. Saka^e,
S. Sahin^f, A. Curgunlu^g, N. Tekin^h, F. Akçiçek^f,
M.A. Karan^e, T. Atlı^c, T. Beger^d, D.S. Erdinçler^d,
S. Arıoğlu^a

^a Hacettepe University, Faculty of Medicine, Department of Internal Medicine, Division of Geriatric Medicine, Sıhhiye, Ankara, Turkey

^b Gazi University, Faculty of Medicine, Department of Internal Medicine, Division of Geriatric Medicine, Beşevler, Ankara, Turkey

^c Ankara University, Faculty of Medicine, Department of Internal Medicine, Division of Geriatric Medicine, Ankara, Turkey

^d Istanbul University, Faculty of Cerrahpasa Medicine, Department of Internal Medicine, Division of Geriatric Medicine, Istanbul, Turkey

^e Istanbul University, Faculty of Istanbul Medicine, Department of Internal Medicine, Division of Geriatric Medicine, Istanbul, Turkey

^f Ege University Faculty of Medicine, Department of Internal Medicine, Division of Geriatric Medicine, Izmir, Turkey

^g Istanbul Bilim University, Faculty of Medicine, Department of Internal Medicine, Division of Geriatric Medicine, Istanbul, Turkey

^h Narlıdere Geriatric Care Center and Residential Home, Narlıdere, Izmir, Turkey

Background/aims.– Sarcopenia and sarcopenic obesity (SO) are a geriatric syndromes related with physical disability, poor quality of life and death. The aim of this study was to investigate the prevalence of sarcopenia and SO in nursing homes in Turkey and to define local disparities for diagnosing sarcopenia and SO in our population. **Method.**– This cross-sectional multicenter study was performed in 711 patients in 14 centers of nursing homes. Comprehensive geriatric assessment tests, hand grip strength and calf circumference (CC) measurements were performed.

Results.– According to handgrip strength measurement, 483 (67.9%) of patients were sarcopenic (male: 72%, female: 63.8%), 228 were non-sarcopenic. The prevalence of SO was 21.9% (13.7% in men, 30.2% in women). 82.5% of patients who were diagnosed as sarcopenic by hand grip strength test, were not sarcopenic according CC sarcopenia criteria. Mean $\pm$ SD of CC was 36.72 ± 5.81 in sarcopenic patients, 38.47 ± 6.10 in patients without sarcopenia ($P < 0.001$). We investigated the suitable CC value for our population. ROC analysis suggested that the optimum CC cut-off point for sarcopenia was 35 cm with a 46.70% sensitivity, 64.81% specificity, 74.10% PPV and 35.50% NPV.

Conclusion.– Both sarcopenia and SO was prevalent among Turkish nursing home residents. Most of the patients with sarcopenia were obese or overweight. We showed that diagnosing sarcopenia with CC measurement underestimated the sarcopenia prevalence assessed by handgrip strength. So we concluded that, although different assessment methods are recommended for the diagnosis of sarcopenia local disparities should be considered.

<http://dx.doi.org/10.1016/j.eurger.2013.07.285>

P222

Interventions targeting pain or behaviour in dementia: Results of a systematic review

M.J.C. Pieper^{a,b,c,d}, A.H. van Dalen-Kok^{a,b,c,d},
A.L. Francke^{a,b,c,d}, J.T. van der Steen^{a,b,c,d},
E.J.A. Scherder^{a,b,c,d}, B.S. Husebø^{a,b,c,d},
W.P. Achterberg^{a,b,c,d}

^a EMGO+ (Institute for Health and Care Research), VUMC University medical center, Amsterdam, Netherlands

^b LUMC Leiden university medical center, Leiden, Netherlands