

SYMPOSIA

S1- POSSIBILITIES TO USE THE INTERNATIONAL PREVALENCE MEASUREMENT OF CARE PROBLEMS (LPZ-INTERNATIONAL) TO IMPROVE AND MONITOR QUALITY OF BASIS CARE IN NURSING HOMES.

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Introduction: The quality of basic care in nursing homes internationally requires continuous attention. A way to raise awareness of and monitor quality of care is undertaking annual audits on structural, process and outcome indicators of care. If conducted in a consistent way, reliable international comparison of audit results becomes possible and nursing homes of different countries can benchmark against each other and learn by comparing practice. LPZ-International (LPZ-I) is an internationally uniform audit of the prevalence of care problems and related quality indicators in different healthcare sectors, including nursing homes. **Objectives:** At the congress last year data were presented describing the use of LPZ-I in different countries. This year 3 new presentations will discuss further learning about use of LPZ-I for quality improvement in nursing homes internationally.

Communication 1: Using the LPZ-I in UK care homes, A. Gordon¹, J. Horne², J. Darby², J. Lewin³, K. McEwan³, E. Coates³, C. Crocker³ (1. Division of Medical Sciences and Graduate Entry Medicine, University of Nottingham, UK; 2. Division of Rehabilitation and Ageing, University of Nottingham, UK; 3. East Midlands Academic Health Sciences Network Patient Safety Collaborative, UK)

Backgrounds: There is currently no consistent way to count care problems to enable benchmarking in UK care homes – we set out to consider whether LPZ-I might enable this. **Methods:** A purposive sample of 26 homes was recruited from volunteer institutions to conduct an LPZ audit on 26th November 2015. Staff participants were recruited for focus groups to develop insights into barriers and facilitators to implementation of LPZ in the UK. **Results:** 489 residents from 26 homes had complete data. 8.4% had pressure ulcers. 66% were incontinent of urine, faeces or both. 78.9% and 39.3% used pressure relieving mattresses and regular repositioning respectively. 81.7% and 44.8% used disposable barriers and regular toileting regimens. Homes reported undertaking additional training and modifying regimes for identifying, reporting and managing pressure ulcers and incontinence in preparation for the audit. They struggled, however, to interpret data returned due to lack of training and infrastructure around quality improvement. **Conclusions:** Using LPZ-I in UK care homes was feasible, acceptable and produced high-quality data. Improvements in quality of care were described during preparation for the audit. Further work is required to understand how LPZ can facilitate quality improvement in care homes.

Communication 2: Measures used in Dutch nursing homes to prevent pressure ulcers: a longitudinal study from 2005-2014, R.J.G. Halfens¹, M. van Leen^{2,3}, J.M.G.A. Schols³ (1. Department of Health Services Research, Caphri, Maastricht University, Maastricht, the Netherlands; 2. Avoord Zorg en Wonen, Eetten-Leur; 3. Faculty of Health, Medicine and Life Sciences, Caphri / Dept. General Practice, Maastricht University, the Netherlands)

Objective: Pressure ulcers (PUs) remain an important and distressing problem in Dutch nursing homes and prevention is

preferable to management. We analysed preventative measures used in Dutch nursing homes and compared these to guidelines in place between 2005-2014. **Method:** Over the period 2005-2014 data about the use of recommended preventative measures for patients at risk of PUs in Dutch nursing homes were collected. Three at risk groups were distinguished: patients with a Braden score of 17-19, with a Braden score of less than 17, and those with a verified pressure ulcer. Data were derived from the LPZ-I. **Results:** The use of preventive measures increased during the years. Use was higher in higher risk groups or when PUs were already present. However, for all three groups, none of the analyzed recommended PU preventive measures was used as often as advised in guidelines. **Conclusion:** None of the advised preventive measures recommended in guidelines valid during the study (EPUAP/NPUAP 1998/2009 and/or the Dutch PU guidelines 2002/2011) were fully used. Why this was the case is unclear. Possible explanations include lack of awareness and knowledge, attitudes amongst nursing staff and the fact that guideline recommendations might be insufficiently tailored to daily practice in PU care.

Communication 3: The effect of a 3-step pressure relieving strategy for pressure ulcers prevention: an explorative longitudinal study from 2002-2015, M. van Leen¹, J.M.G.A. Schols², S. Hovius³, Ruud J.G. Halfens² (1. Avoord Zorg en Wonen, Eetten-Leur and Faculty of Health, Medicine and Life Sciences, Caphri / Dept. Health Services Research, Maastricht University, The Netherlands; 2. Faculty of Health, Medicine and Life Sciences, Caphri, Dept. Health Services Research, Maastricht University, Maastricht, The Netherlands; 3. Department of Plastic Surgery, Erasmus Medical Center Rotterdam, The Netherlands)

Backgrounds: TPUs are an important and distressing problem in Dutch nursing homes. This study explores the effects, including cost, of a 3-step prevention protocol on the prevalence of PU in at risk patients in the Avoord nursing homes in Eetten-Leur/Zundert (The Netherlands). **Method:** Data on the prevalence of pressure ulcers and use of preventive measures were derived from LPZ-I. Data of patients at risk of pressure ulcers in the Avoord nursing homes were compared with national data from 2002-2015. **Results:** Introduction of the protocol was associated with a significant reduction of the prevalence of PUs in categories 2-4. Reduction in prevalence from 8.7% to 0.5% was realized in one year and was stable around 2% during the total study period. The national prevalence also decreased during this period, but in smaller steps. After implementation of the protocol, mean daily costs of the mattresses used in the Avoord nursing homes were reduced by more than 70% compared with national figures. The workload of the nursing staff decreased as well because of the acceptable reduction of repositioning. **Conclusion:** The introduction of the 3-step protocol was effective. LPZ-I data showed that both prevalence of PU and the mean daily costs reduced following introduction.

S2- PALLIATIVE CARE AND CARE HOMES – THE PACE PROJECT: A RANDOMISED CONTROLLED TRIAL INTERVENTION STUDY ACROSS SEVEN EUROPEAN COUNTRIES. B. Onwuteaka-Philipsen (*Department of Public and Occupational Health, EMGO Institute for Health and Care Research, Expertise Centre of Palliative Care, VU Medical Centre, Amsterdam, The Netherlands*)

Introduction/Background: Societies in the EU are aging, leading to the need not only to improve health by prevention but also to improve quality of life and enabling people to live and die well. The proportion of the world's population over 60 years is expected

to double from about 11% to 22%. More people will die in late old age with generalized frailty or neurological failure, following a slow dying course with multiple chronic diseases and years of disability and complex palliative care needs. The number of people living with dementia worldwide is estimated to double to 65.7 million by 2030 and triple to 115.4 million by 2050. These developments have enormous clinical, societal and socio-economic implications common to all EU countries. A significant proportion of older people live and die in long term care facilities. A number of descriptive studies suggest that end of life care in these facilities can be less than optimal for older people and their families and quality of dying can be suboptimal. Palliative care is not always accessible, symptoms appear under-estimated and there is a risk of over-treatment i.e. continuing life-prolonging, burdensome treatments without knowing individual preferences, or of being transferred to a hospital in the last days of life. Previous work undertaken in the United Kingdom has led to the development of 'The Route to Success' programme, which was promoted nationally (building upon the work of the UK Gold Standards Framework (GSF) for care homes) in order to improve the quality of palliative care in LTCFs. Seven countries were (six funded by EU FP7 and one self-funded) are undertaking a trial of the effectiveness of this programme in nursing homes. **Objectives:**

- To compare the impact of the health service intervention 'PACE Steps to Success' with traditional care in long term care facilities (LTCFs) in terms of patient and family outcomes, quality of dying, quality of palliative care, and cost-effectiveness; and in terms of staff knowledge, and attitudes (outcome and economic evaluation);
- To evaluate the implementation process of the intervention in LTCFs and identify facilitators/barriers across countries and in specific countries (process evaluation).

Methods: A controlled cluster trial in 8-12 long-term care facilities (LTCFs) in each of the seven European countries taking part with half of the LTCFs randomly allocated to the intervention and half to the control arm to assess the impact of the UK 'PACE Steps to Success' intervention on patient outcomes, family and staff in LTCFs. A process evaluation of the implementation of the intervention was also undertaken with interviews being held with staff members about their experiences of using the intervention. **Discussion:** The 1st presentation of this symposium will provide a European context for the study trial by presenting results of a scoping exercise undertaken to map and classify different structures, organizational models, and policies related to palliative care provision in long term care facilities (LTCFs) in Europe. A palliative care development typology is presented and an indication of the extent to which different European countries are engaging with the development of palliative care in LTCFs provided. The 2nd presentation will highlight the PACE intervention – its development and implementation. The 'six steps' of the intervention address: discussions about current and future care as end of life approaches; assessment and mapping changes in residents' condition; co-ordination of care through monthly review meetings; delivery of high quality care: symptom management; care in the last days of life; and care after death. The intervention aims to integrate palliative care in day-to-day routines to ensure behavioural sustainability. The implementation is supported by key personnel: LTCF Coordinators as champions from within each LTCF setting; and, a Country Trainer who delivers workshops and provides support and education for all staff to each LTCF. There are three phases to the intervention: a two-month pre-implementation phase; a six-month implementation phase when the six steps are introduced; and, finally, a four-month consolidation phase. The intervention implementation process has entailed an iterative process of consultation between the researchers and clinicians across the countries taking part, including an implementation process review prior to use in the main trial. The 3rd presentation

will highlight the evaluation of the implementation with particular attention to the process evaluation. This evaluation is based on the RE-AIM framework (Reach, Efficacy, Adoption, Implementation, Maintenance). The main aim of the process evaluation is to understand the functioning of the intervention alongside the results of the RCT in order to determine if the intervention is feasible of large scale implementation and if 'country specific' adjustments are required prior to implementation. The process evaluation is complementary to the outcome evaluation with core elements examining quality (fidelity) and quantity (dose) of implementation and the extent to which the intervention reached the audience. It will also examine the barriers and facilitators for large scale implementation. Measurements that are used for the process evaluation are: • Diaries for country trainers and PACE coordinators (Implementation); • Attendance lists for training sessions and meetings (Reach, Adoption, Implementation); • Evaluation questionnaire training sessions for care staff (Implementation); • Group interviews care staff (Adoption, Implementation); • Group interviews PACE coordinators (Implementation, Maintenance); • Online focus group country trainers (Implementation, Maintenance); • Interviews facility managers (Implementation, Maintenance); • Interviews with residents (Adoption). **Conclusion:** This complex intervention trial is the largest study ever to be undertaken to evaluate a palliative care intervention study in LTCFs across seven European countries with forty LTCFs in the implementation arms and forty LTCFs in the control arm. Building upon an overview of the wider context for palliative care development in LTCFs across Europe, the specific intervention and its evaluation is outlined.

Communication 1: Mapping Palliative Care Development in Long Term Care Facilities across Europe. K. Froggatt (End of Life Care Observatory, Faculty of Health and Medicine, Lancaster University, UK)

Communication 2: Developing the PACE 'steps to success in palliative care' intervention and its implementation across seven countries. J. Hockley (OBE, Primary Palliative Care Research, Centre for Population Health Sciences, University of Edinburgh, UK)

Communication 3: Evaluating the PACE 'steps to success in palliative care' intervention using the RE-AIM framework. H.R. Pasman (Department of Public and Occupational Health, EMGO Institute for Health and Care Research, Expertise Centre of Palliative Care, VU Medical Centre, Amsterdam, The Netherlands)

S3- STRUCTURALLY INVOLVING AND EMPOWERING STAKEHOLDERS IN THE NURSING HOME: THE USE OF PARTICIPATORY ACTION RESEARCH. E. Gorus (Vrije Universiteit Brussel, Belgium)

Introduction: Quality (improvement) is a concept receiving increasing attention in healthcare and gerontology. Within residential care, this focus accords to the importance of valuing people, valuing residents and other stakeholders. There is an awareness of evolving towards a bottom-up operation where all stakeholders' voices are acknowledged and incorporated. Still, there appear to be structural, organisational and cultural barriers in nursing homes (NH), notwithstanding numerous studies showing the added values of empowering residents and staff. It remains a challenge to let stakeholders' voices be heard in a structural manner. **Objective:** Within this symposium, Participatory Action Research (PAR) is introduced as structural empowering approach within NH. PAR regards an approach where those people who are affected by the decisions in an organisation, become the central agents in the decision-

making. In this symposium an international experience is shared. Three research groups from Belgium, the Netherlands and Denmark will present their results and experiences of introducing PAR in its different forms towards different stakeholders in NH.

Communication 1: Introducing PAR with residents in NH: exploring participants' experiences and examining the effects.

L. Van Malderen¹, T. Mets¹, P. De Vriendt^{1,3}, D. Verté¹, E. Gorus^{1,4} (1. Gerontology Department, Vrije Universiteit Brussel, Belgium; 2. Research Foundation Flanders, Belgium; 3. Artevelde University College, Ghent, Belgium; 4. Geriatric Department, Universitair Ziekenhuis Brussel, Belgium)

Objective: At the Vrije Universiteit Brussel (Belgium) the aim was to examine experiences and effects of introducing PAR with NH residents. **Methods:** A PAR project was started with residents in one NH. Nine residents and two moderators weekly came together for one hour. The residents addressed and discussed topics, problems they encountered and address points for improvements which are further implemented. A variety of topics came up. The PAR-sessions were part of a large mixed method study to examine the effects and experiences of introducing PAR, combining qualitative interviews held with PAR participants and a randomised controlled trial(RCT). Within the RCT, three comparable NH took part, including 88 residents for assessments. After random allocation, the introduction of PAR in one NH was compared to an active control NH, where reminiscence was introduced as activity, and to a passive control NH (no activity). At baseline, after six and twelve months all residents were assessed on their NH-experience, their quality of life and experienced participation. **Results/Discussion:** Based on the qualitative interviews, PAR was highly valued by the participants, underlining positive experiences on the activity, on its process, on the atmosphere and on the future. The participants also experienced positive impacts, including a higher satisfaction, critical awareness, bonding, feelings of control and pride. It, however, remained vague if other residents were aware of the PAR-decisions and further efforts to implement changes were needed, moving further towards a bottom-up vision shared by all employees. The RCT furthermore revealed significant better improvements in residents' quality of life in the intervention and active control NH, compared to the passive control NH.

Communication 2: Action research with employees in nursing homes – a way to empowerment of staff and residents? A. Bilfeldt¹, M. Soegaard Joergensen¹, M. Mahler¹, J. Andersen² (1. Aalborg University, Denmark; 2. Roskilde University, Denmark)

Objectives: At the Aalborg University (Denmark), the aim was to improve the professional skills and engagement of the care workers and to improve the life quality and participation of residents. **Methods:** Action research was performed with employees in a public NH. The employees at the NH had suggested the manager to start a project focusing on quality in care, since they felt trapped in a negative spiral of rushing and disempowering the residents. Furthermore, the idea was that the project could strengthen a public and professional discourse about more democratic and inclusive alternatives (for staff as well as residents) to the currently growing bureaucracy and top-down control systems in care. The project was inspired by critical utopian action research with future workshops as an important methodological tool. 25 employees joined the future workshop where they got the opportunity to increase their understanding about their visions for the everyday life at the NH. In future workshops the employees were the driving forces in the production of future visions and actions. It makes use of specific rules of communication and

gives the opportunity to “think out of the box”. A future workshop has three phases: the first is the critique phase which asks: what is wrong? Thereafter follows the utopian phase which asks: where do we like to go? Finally, the realization phase asks: how can these dreams become reality? The project followed the core characteristics of action research to be “a shared commitment to democratic social change”.

Results/Discussion: It will be discussed how the project contributed to changes in care quality and how the project led to empowerment of the residents and staff and played an important role in the development of democratic knowledge building about better care quality by focusing on residents' social life and need for autonomy.

Communication 3: Collective involvement in elderly care: clients and professionals working together on practice improvements.

S. Woelders, A. Heijmans, T. Abma (Department of Medical Humanities, VU University Medical Centre, EMGO+ Institute for Health and Care Research, Amsterdam, The Netherlands)

Objective: At the VU University Medical Centre (the Netherlands), the aim was to stimulate residents' involvement and to build on partnership relations with professionals. **Methods:** For this purpose, the PARTNER approach is developed by using PAR in a residential care home. This approach is a work format for resident involvement as partnership development. This process starts off in the life world of clients and stipulates that all stakeholders have equal opportunities to bring in their experiences, by fostering dialogue between clients and professionals. The PARTNER approach was further introduced in 7 NH in The Netherlands, aiming to improve quality of care by building partnerships. **Results/Discussion:** By studying these processes we can shed light on the facilitating and inhibiting factors that influence the process of building partnerships between clients and professionals and work on practice improvements together. From these cases studies we conclude that the PARTNER approach can be a start to stimulate involvement. Attention has to be paid to the emotions and processes of power, hidden in the discourses and languages used. To stimulate involvement, common ground and a collective language are needed for all those involved in order for them to really understand each other. Narratives can be helpful in paving the way to new solutions in which the voices of all stakeholders are valued. **Conclusion:** This symposium underlines the importance and possibilities of NH becoming an enabling environment where all stakeholders can be involved.

S4- DYSPHAGIA AND NUTRITION IN NURSING HOME RESIDENTS. D. Volkert (Institute for Biomedicine of Aging, Friedrich-Alexander-Universität Erlangen-Nürnberg, Nuremberg, Germany)

Communication 1: Oropharyngeal dysphagia as a geriatric syndrome: Minimal Massive Intervention (MMI). A new concept for dysphagia management. P. Clavé (1. European Society for Swallowing Disorders; 2. Unitat d'Exploracions Funcionals Digestives, Department of Surgery, Hospital de Mataró, Universitat Autònoma de Barcelona, Mataró, Spain; 3. Centro de Investigación Biomédica en Red de enfermedades hepáticas y digestivas (CIBERehd), Instituto de Salud Carlos III, Barcelona, Spain)

Objective: TOrpharyngeal dysphagia (OD) is a major complaint among older people. OD is recognised by the WHO, can cause severe complications such as malnutrition, dehydration, respiratory infections, aspiration pneumonia (AP), and increased readmissions, institutionalization and morbimortality. OD is a prevalent (27-51%) and serious problem among all phenotypes of elderly patients. Despite its prevalence and severity, OD is still underdiagnosed and

untreated in many healthcare centers. There are several clinical methods to diagnose OD, and effective treatments mainly based on compensatory measures, oral health and nutritional support (such is the new concept of “Minimal Massive Intervention”). OD matches the definition of a geriatric syndrome. The ESSD world swallowing day survey www.myessd.org is dedicated to promote awareness and screening on OD among elderly people. The V-VST is an excellent tool to clinically assess elderly patients for OD. It combines good psychometric properties, a detailed and easy protocol, and valid end points to evaluate safety and efficacy of swallowing and detect silent aspirations. Using V-VST we found frail older patients with OD had impaired health status, poor oral health, high oral bacterial load, and prevalence of oral colonization by respiratory pathogens, and were at risk for AP. OD is a risk factor for malnutrition and respiratory infections in independently living older subjects. OD is a prevalent risk factor for malnutrition in older patients admitted to a general hospital. Prevalence of dysphagia (47%) was higher than malnutrition (30%) in our older patients. Dysphagia was an independent risk factor for malnutrition, and both conditions were related to poor outcome. OD is also a risk factor for health-care acquired pneumonia (CAP) in the elderly, and a very prevalent and relevant risk factor associated with hospital readmission for both aspiration and nonaspiration pneumonia in the very elderly persons OD should be given more importance and attention and thus be included in all standard screening protocols for elderly people, treated and regularly monitored to prevent its main complications. Treatment with dietetic changes in bolus volume and viscosity, oral health and nutritional support (MMI) can prevent nutritional and respiratory complications.

Communication 2: Prevalence of dysphagia and nutritional strategies – results from the nutritionDay in nursing homes. M. Streicher¹, K. Schindler², M. Hiesmayr², C.C. Sieber¹, D. Volkert¹, (1. *Institute for Biomedicine of Aging, Friedrich-Alexander-Universität Erlangen-Nürnberg, Nuremberg, Germany*; 2. *Medical University Vienna, Vienna, Austria*)

Introduction: The worldwide nutritionDay project is a one day cross-sectional survey, repeated in yearly intervals since 2007 and aims to increase awareness of malnutrition in nursing homes. With simple questionnaires nutritional status, nutritional interventions, and potential risk factors of malnutrition such as dysphagia are assessed. Thus, the nutritionDay offers the opportunity to examine prevalence rates of dysphagia in nursing homes from different countries and to analyze which nutritional strategies are chosen for dysphagic residents. Presently, little is known in this regard. **Objectives:** To present prevalence rates of dysphagia in nursing homes and to describe nutritional interventions for residents with dysphagia based on recent results from the nutritionDay project. **Discussion:** Dysphagia complicates oral nutrition and often requires alternative feeding routes. If oral nutritional intake is insufficient or not possible, alternative feeding via tube or parenteral nutrition needs to be considered. In the nutritionDay (n=20,225), the overall prevalence of dysphagia was 13.5%. Italy had the highest prevalence of dysphagia (24%) and Hungary the lowest (8%) while the prevalence rates did not differ between Austria (14%), Norway (14%), and Germany (13%). Dysphagia often occurred in residents with physical or cognitive impairment and in residents with poor nutritional status. Whereas almost all (98.7%) residents without dysphagia received oral nutrition, this was the case in 79.3% of residents with dysphagia. Texture modification (46.7% vs 7.9%), fortification (11.4% vs 4.6%), oral nutritional supplements (29.0% vs 11.8%), tube feeding (13.3% vs 0.5%), and parenteral nutrition (2.3% vs 1.0%) were more frequently used in dysphagic residents compared to residents without dysphagia.

Nutritional strategies varied widely between nursing homes and countries. **Conclusion:** In the nutritionDay project, a great variation in the prevalence of dysphagia was found. Most prevalent nutritional strategies for dysphagia were texture modification, oral nutritional supplements and tube feeding. The reasons for the heterogeneity between countries as well as the adequacy of nutritional interventions in dysphagic residents need to be clarified in future research.

Communication 3: Oral management of malnutrition in nursing home residents with dysphagia. A. Gietl, C.C. Sieber, D. Volkert (*Institute for Biomedicine of Aging, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany*)

Introduction: Nursing home residents with dysphagia have an increased risk of malnutrition. Oral nutritional strategies for the management of malnutrition in dysphagia include modification of food texture, fortification of meals and provision of a visually attractive, tasty and varied diet. These strategies aim to ensure an adequate and safe energy, nutrient and fluid intake in order to maintain the nutritional status and avoid complications like aspiration and pneumonia. **Objectives:** Based on available literature this presentation will give an overview of oral strategies for nutritional management of dysphagia with a focus on the benefits of these strategies. **Discussion:** There are only few studies examining texture-modification, which are partly performed in the hospital setting. These studies showed that receiving a texture-modified diet is accompanied by lower intakes of energy and protein compared to receiving a regular diet. Effects on body weight are mostly not considered, and inconsistent terminology hampers comparison between studies. Existing studies about food fortification focus on protein or energy and are also partly performed in hospitalized patients. They are not restricted to patients with dysphagia and do not use texture-modified diets but overall show a positive effect on dietary intake. Studies investigating the effects of visually appealing, tasteful diets are also very limited in number and have shown that offering a diversified appealing texturemodified diet is able to improve dietary intake and body weight. **Conclusion:** Benefits of nutritional interventions in nursing home residents with dysphagia have been examined in only few studies, which mainly used one single approach of oral nutritional management. There is a need for studies investigating the benefits of a triple approach covering texture modification, food fortification and organoleptic properties of food and fluids on dietary intake and nutritional status.

S5- TOWARDS SPECIALIZED LONG-TERM CARE FOR PEOPLE WITH MENTAL-PHYSICAL MULTIMORBIDITY, YOUNG ONSET DEMENTIA OR SEVERE CHALLENGING BEHAVIOR. R. Koopmans (*Department of Primary and Community Care, Radboud, University Medical Center, Joachim and Anna, center for specialized geriatric care, Nijmegen, Netherlands, Radboud Alzheimer Center, Nijmegen, Netherlands*)

Dutch long-term care facilities (LTCF) gradually evolve to centers for specialized geriatric care. Research is necessary to further enhance quality of care and treatment of specific patient-categories like patients with mental-physical multimorbidity, young onset dementia or severe challenging behavior. This symposium focuses on these patients that have complex health care needs.

Communication 1: Characteristics and health conditions of nursing home patients with mental-physical multimorbidity – the MAPPING study. A.M.A. van den Brink¹, M.M.H. de Valk¹, R.C. Oude Voshaar³, D.L. Gerritsen^{1,2}, R.T.C.M. Koopmans^{1,2} (1. *De Waalboog, Specialized Geriatric Care Centre ‘Joachim and*

Anna', Nijmegen, The Netherlands; 2. Department of Primary and Community Care, Centre for Family Medicine, Geriatric Care and Public Health, Radboud University Nijmegen, Medical Centre, Nijmegen, The Netherlands; 3. University Medical Center Groningen, University of Groningen, University Center for Psychiatry and Interdisciplinary Center for Psychopathology of Emotion regulation, Groningen, The Netherlands)

Background: Long-term care facilities have partly taken over the traditional asylum function of psychiatric hospitals and house an increasing group of patients with mental-physical multimorbidity (MPM). Little is known about the characteristics, behavior and care dependency of these patients. **Methods:** Descriptive study among patients with MPM without dementia, stratified by those referred from mental healthcare services (MHS) and other healthcare services (OHS). Seventeen geronto-psychiatric nursing home units across the Netherlands. Participants were patients with MPM without dementia (n=142). Data collection consisted of chart review, semi-structured interviews, (brief) neuropsychological testing, and self-report questionnaires. Patients referred from MHS (n=58) and from OHS (n=84) were compared by descriptive statistics. **Results:** We found both groups to be quite similar regarding the mean number and distribution of their physical conditions and concomitant medication use. Prevalence and severity of frontal impairment were high, as well as the number of patients with clinically relevant neuropsychiatric symptoms. MHS patients were younger, had more chronic psychiatric disorders and more often they used antipsychotics. **Conclusions:** Both NH patient groups with MPM showed heterogeneity in many aspects, but a lot of similarities regarding the consequences of their multimorbidity. In a variety of characteristics, this group seems to be different from other patient groups residing in nursing homes, which requires extra knowledge and skills of the staff. To uncover which knowledge and skills are necessary, the next step should be to investigate the specific care needs of NH-patients with MPM without dementia.

Communication 2: Neuropsychiatric symptoms and occupational disruptiveness: young-onset dementia compared with late-onset dementia. J.C.L. van Duinen-van den Ijssel¹, A.J.M.J. Mulders^{1,2,3}, C. Bakker^{1,2,4}, S. Zwijsen⁵, M. Smalbrugge⁵, M. de Vugt⁶, S. Zuidema⁷, F. Verhey⁶, R.T.C.M. Koopmans^{1,2,8} (1. Department of Primary and Community Care, Centre for Family Medicine, Geriatric Care and Public Health, Radboud University Nijmegen, Medical Centre, Nijmegen, The Netherlands; 2. Radboudumc Alzheimer Centre, Radboud University Medical Centre, Nijmegen, The Netherlands; 3. Archipel Care Group, Landrijt, Centre for Specialized Care, Eindhoven, The Netherlands; 4. Florence, Mariahoeve, Centre for Specialized Care in Young-onset Dementia, Den Haag, The Netherlands; 5. Institute for Health and Care Research, VU Medical Center, Amsterdam, the Netherlands; 6. School for Mental Health and Neuroscience, Alzheimer Center Limburg, Maastricht University Medical Center, Maastricht, The Netherlands; 7. Department of General Practice, University Medical Center Groningen, University of Groningen, Groningen, the Netherlands; 8. De Waalboog, Specialized Geriatric Care Centre 'Joachim and Anna', Nijmegen, The Netherlands)

Background: Neuropsychiatric symptoms (NPS) are quite common in nursing home residents with young-onset dementia (YOD) as well as in residents with late-onset dementia (LOD). NPS are associated with increased burden and diminished well-being of the nursing staff. Little is known about the impact of NPS on nursing staff caring for residents with YOD and differences in occupational

disruptiveness related to NPS between YOD nursing staff and LOD nursing staff. Knowledge about the impact of NPS on nursing staff can provide insight in supporting YOD nursing staff in the management of challenging behavior. **Methods:** This study is part of the Behavior and Evolution of Young-Onset Dementia part 2 (BEYOND-II) study. Baseline data of the Beyond-I (230) and II Study (n=210) were merged resulting in a study-population of 440 residents with YOD. Data were compared with baseline data of the WAAL Behavior in Dementia-II study (n=290), that studied the course of neuropsychiatric symptoms in institutionalized people with LOD. Occupational disruptiveness was assessed with the occupational disruptiveness scale of the Neuropsychiatric Inventory-Nursing home version (NPI-NH). This scale measures the increase in work, effort, time or distress related to the NPS on 6-point scale. The NPI-NH was also used to assess the frequency (F) and severity (S) of the twelve NPS. Only clinical relevant NPS were taken into account (FxS ≥ 4). **Results:** In both groups the prevalence rates of clinical relevant NPS were highest for apathy, agitation and aggression and irritability (YOD: 48.3%, 39.4% and 36.6%; LOD: 28.9%, 23.7% and 26.1%). The mean occupational disruptiveness scores of apathy, agitation and aggression and irritability were 2.09, 3.44 and 3.10 for YOD nursing staff and 1.60, 3.41 and 3.09 for LOD. Overall the mean occupational disruptiveness ranged from 2.09-3.67 in YOD nursing staff and 1.60-3.41 in LOD nursing staff. **Conclusions:** These preliminary results indicate that there are differences in prevalence between YOD and LOD. However, there seems to be no difference in occupational disruptiveness between YOD and LOD. Further multivariate analyses will reveal the influence of other factors like severity of dementia on the relation between NPS and occupational disruptiveness.

Communication 3: Challenging behaviour in nursing home residents with dementia; prevalence, characteristics and correlated factors of extreme aggression and vocally disruptive behaviour. A. Rouwenhorst¹, D.L. Gerritsen¹, M. Smalbrugge², R.B. Wetzels¹, H. Bor¹, S.U. Zuidema³, R.T.C.M. Koopmans¹ (1. Department of Primary and Community Care, Radboud Alzheimer Centre, Radboud University Medical Center, Nijmegen, Netherlands; 2. Department of General Practice and Elderly Care Medicine/ EMGO+ Institute, VU University medical center, Amsterdam, Netherlands; 3. Department of General Practice, University of Groningen, University Medical Center, Groningen, Netherlands; 4. Joachim and Anna, center for specialized geriatric care, Nijmegen, Netherlands)

Background: Although many nursing home (NH)-residents with dementia show challenging behaviour to some extent, hardly any literature is published about extreme aggression and vocally disruptive behaviour (VDB). The Waalbed-III study focuses on the prevalence and correlates of these behaviors, and characteristics of these residents. **Methods:** Data of 4 studies in NH-residents with dementia was combined into one dataset (n=2076). Residents with extreme aggression (defined as those having a score of 6 or 7 on the Cohen Mansfield Agitation Inventory (CMAI) -items 'cursing or verbal aggression', 'hitting', 'pushing', 'biting' and 'kicking') were compared with residents without aggression. A multivariate multilevel logistic regression analysis was performed to assess the association of several variables with extreme aggression. The same procedures were performed for residents with extreme VDB (defined as having a score of 6 or 7 on the CMAI-items 'screaming' and 'making strange noises') compared to residents without VDB. **Results:** 160 NH-residents met the definition of extreme aggression (7.7%). Compared to residents without aggression (n=1100) extremely aggressive residents were younger, had a more severe stage of

dementia and used psychotropic drugs (PD) more often. Several correlated factors for extreme aggression were gender (being male, OR 1.74, $p=0.04$), dementia severity (Global Deterioration Scale (GDS) 7, OR 2.11, $p=0.02$), and the use of antipsychotics (OR 2.23, $p=0.00$) and anxiolytics (OR 1.67, $p=0.04$); moreover, odds ratios for extreme aggression were significantly higher in residents with several symptoms like delusions (OR 5.70, $p=0.00$) and euphoria (OR 2.61, $p=0.01$). Residents with extreme VDB (11.5%, $n=239$) had a lower mean age, a different severity of dementia (more in GDS 7), a longer duration of stay and higher PD use compared to residents without VDB ($n=1444$). Correlated factors for extreme VDB were, for example, dementia severity (GDS 7, OR 4.55, $p=0.00$), antipsychotic drug use (OR 1.80, $p=0.00$), antiepileptic drug use (OR 1.95, $p=0.02$), euphoria (OR 8.08, $p=0.00$) and irritability (OR 2.23, $p=0.00$). **Conclusions:** Characteristics of NH-residents with extreme aggression and extreme VDB are different from other NH-residents. Furthermore, we obtained more insight in several correlated factors. In clinical practice, these factors may signal the possible occurrence of extreme aggression and VDB, and may therefore be a starting point for treatment.

S6- URINARY TRACT INFECTIONS IN NURSING HOMES: IT'S TIME FOR ACTION! C. Hertogh, (*Department of General Practice & Elderly Care Medicine / EMGO Institute for Health and Care Research, VU University Medical Center, Amsterdam, the Netherlands, Task Force Antimicrobial Resistance, National Institute for Public Health and the Environment (RIVM), Bilthoven, the Netherlands*)

The substantial use of antibiotics in long-term care facilities (LTCFs) has resulted in an increase in antibiotic resistance in this setting. Prior research showed that antibiotic overtreatment is especially common in case of urinary tract infections (UTI). In this session, an update of the antibiotic resistance problem in nursing homes (NHs) is presented along with consequences for policy and practice, based on Dutch data (communication 1). Subsequently, research is presented on how UTI are diagnosed and treated in current NH practice, using an illustrative case (communication 2). The symposium will be concluded with a presentation on the development of diagnostic criteria for UTI by an international Delphi expert panel (communication 3).

Communication 1: The nursing home: a black hole of antibiotic resistance? Data from the Netherlands. L. van Buul¹, L. Verhoef², M. Scholing³, E. Stobberingh² (*1. University Network of Organisations for Care for the Elderly, department of General Practice & Elderly Care Medicine / EMGO Institute for Health and Care Research, VU University Medical Center, Amsterdam, the Netherlands; 2. National Institute for Public Health and the Environment (RIVM), Centre for Infectious Diseases Control / Epidemiology and Surveillance Unit, Bilthoven, the Netherlands; 3. Public Health Service / The Onze Lieve Vrouwe Gasthuis (OLVG), Amsterdam, the Netherlands*)

Antibiotic resistance is an increasing problem in healthcare settings across the world, yet little research has been conducted on this topic in the long-term care setting. It is assumed however that NHs might be a reservoir of multi-drug-resistant microbes due to high use of antibiotics and the fact that these are frequently prescribed empirically, hence without insight into the causative pathogen. Further, infection prevention is often suboptimal, especially in dementia special care units, where cognitive impaired residents live closely together in a home-like environment and compliance with preventive measures is

a challenge. This presentation will provide an overview of recently conducted studies, such as the SARAH and the OPA study, that aimed to provide insight into antibiotic resistance in LTCFs. Based on these studies, prevalence of MRSA and VRE is low in Dutch LTCFs. For the Gram-negative bacteria, however, the SARAH study found high resistance percentages – ranging from 20% to 25% – of *E. coli* for most of the commonly used antibiotic drugs, and the OPA study reported a prevalence of overall multidrugresistance of 18.2%. The implications of these results for NH practice (e.g. the importance of appropriate antibiotic use and proper infection control measures) will be described, as well as the consequences of new national Dutch policy on surveillance of multi-drug-resistant bacteria.

Communication 2: Mrs. Jones 'is not herself today': let's perform a urine dipstick? R. Veenhuizen, L. van Buul, C. Hertogh, (*University Network of Organisations for Care for the Elderly, department of General Practice & Elderly Care Medicine / EMGO Institute for Health and Care Research, VU University Medical Center, Amsterdam, the Netherlands*)

Background: UTI is the most commonly diagnosed infection in LTCFs and consequently accounts for the largest share of antibiotic use in this setting. Insight into antibiotic-prescribing decision making is needed to determine how diagnosis and treatment of UTI can be improved. **Methods:** Physicians in 10 NHs in the central-west region of the Netherlands recorded treatment decisions for UTI over an 8-month period. Appropriateness of these decisions was evaluated using a guideline-based algorithm. In addition, interviews were held with 13 physicians and 13 nursing staff members of 7 LTCFs to gain in-depth information on factors influencing antibiotic prescribing decision making for UTI. **Results:** Of 406 recorded treatment decisions for UTI, 32% were considered inappropriate. Most of these were in non-ill patients with nonspecific signs and symptoms only (e.g. confusion, suprapubic pain). The interviews showed that a variety of factors may result in antibiotic prescribing in such cases, including expectations of nursing staff and diagnostic uncertainty. **Conclusion:** Better diagnostic criteria for UTI in NH residents, and more awareness regarding these criteria and other factors that influence antibiotic prescribing may result in reduced antibiotic use for UTI in LTCFs.

Communication 3: Defining diagnostic criteria for urinary tract infections in frail elderly: a Delphi consensus study. C. Hertogh¹, L. van Buul¹, H. Vreeken² (*1. Department of General Practice & Elderly Care Medicine / EMGO Institute for Health and Care Research, VU University Medical Center, Amsterdam, the Netherlands, Task Force Antimicrobial Resistance, National Institute for Public Health and the Environment (RIVM), Bilthoven, the Netherlands; 2. Dutch Association of Elderly Care Physicians (Verenso), Utrecht, Netherlands*)

Background: The conclusions of the studies presented in communication 2 have resulted in the objective to define signs and symptoms that allow for withholding antibiotics in frail elderly with suspected UTI. **Methods:** An international expert panel including infectious disease specialists, geriatricians and elderly care physicians was invited to participate in a Delphi study. In a maximum of four questionnaire rounds, this panel will reach consensus on (especially nonspecific) signs and symptoms ascribed to UTI that should not be treated with antibiotics. **Results:** Of 17 invited experts, 16 (94%) agreed to participate in this Delphi study. The Delphi study is still ongoing (the first questionnaire round took place in May 2016, and the second round in June 2016) but final results will be available prior to the meeting of the Nursing Home Research International Work

Group in November 2016. **Conclusion:** This Delphi consensus study will result in an internationally supported algorithm for the evaluation of signs and symptoms that are in current LTCF practice ascribed to UTI, and on corresponding treatment policies. The implementation of this algorithm has the potential to reduce antibiotic overtreatment in LTCFs, and in turn to contribute to reduced antibiotic resistance in this setting.

S7- NURSING HOME MEDICINE: IN THE TRIANGLE OF GERIATRIC MEDICINE, REHABILITATION AND PALLIATIVE CARE. J.M.G.A. Schols (*Dept. of Health Services Research and Dept. of Family Medicine, Maastricht University, Netherlands*)

Introduction: Patients residing in nursing homes can be described as the most vulnerable older people. Complex multiple comorbidity is often accompanied by polypharmacy, functional and cognitive impairment and extensive dependency in ADL. This requires medical care that must include geriatric skills that can optimally deal with geriatric giants such as falls, sarcopenia, osteoporosis and delirium. Many nursing home patients have progressive and life-threatening neurodegenerative diseases such as dementia, organ-failure such as end-stage COPD or heart failure and cancer. Goals for these patients clearly fall within the scope of palliative care, in which quality of life and comfort become the most important treatment goals. Frail older people also are prone to have health problems that cause more or less acute functional decline, such as stroke, hip fracture, or after elective surgery such as a knee or hip prosthesis or amputation. In the context of their (temporarily) physical, cognitive or social vulnerability they can be admitted in the nursing home. However, the primary aim of admission in this group is to restore functions and ADL independency so they can be discharged to their own home. This kind of medical care requires geriatric rehabilitation skills.

Objectives: In this symposium, the geriatric, palliative and geriatric rehabilitation aspects of nursing home care will be discussed by international experts. In the synthesis the results will be discussed with the presenters and the audience. What do these results imply for the necessary skills and competencies of physicians in nursing home medicine? Patients residing in nursing homes are all very frail. The care they need vary from complex geriatric medicine, geriatric rehabilitation with many interactive confounders, to palliative care with communicative and cognitive impairment. These different care needs ask for a diversity of competencies from the physician, that are discussed in this symposium. The important and pertinent question at the end of this symposium that has to be resolved is: What must we do to assure good medical care in long term care/nursing homes? Expected learning outcomes of the symposium: After attending this symposium, the following learning outcomes are achieved: - the participant understands the different treatment goals for patients in nursing homes; - the participant learns about the most recent evidence based practices regarding geriatric medicine in nursing homes; - the participant knows how to interpret comorbidity and fear of falling in the process of geriatric rehabilitation; - the participant knows how to set up good palliative care for long term care residents; - the participants knows which competencies are imperative for providing good nursing home medical care.

Communication 1: Geriatric aspects of nursing home medicine & care: Using the FRAIL-NH. J. Morley (*Saint Louis University, USA*)

Frailty is highly prevalent amongst community-dwellers and the institutionalized population. Fundamental to the definition of frailty

is the clinically apparent syndrome resulting from age-associated decline of physiologic reserve creating increased vulnerability to stressors. Frailty manifests itself when there is a cyclical instability in the following: loss of muscle mass, weakness, weight loss, low exercise tolerance, and low activity. More specifically the Fried frailty phenotype has been employed to identify the physically frail elderly. Three of the five following criteria must be met to be categorized as frail: unintentional weight loss of >10 pounds in one year, self-report of exhaustion, slow walking speed, low activity level, and weakness measured by grip strength (6). The FRAIL-NH was developed as a feasible screening tool in the nursing home. The FRAIL-NH includes core characteristics of the frailty phenotype and Frailty Index classification systems. The seven potentially reversible variables involved in the FRAIL-NH include fatigue, resistance, ambulation, incontinence, weight loss, nutritional approach and help with dressing. In this lecture, the predictive validity and the use of the FRAIL-NH in the nursing home is discussed.

Communication 2: Palliative aspects of nursing home medicine & nursing home care. B. Husebo (*Bergen, Norway*)

In most Western countries, palliative care has been developed around cancer care, with a focus on younger dying persons with cancer. Non-cancer palliative care, for instance for people with dementia or organ failure is profound more difficult, and especially prevalent in nursing homes. Therefore the question is raised: how can we assure a good death in long term care, where non-cancer palliative care, often in persons with impaired cognition, is the most prevalent? How can long term care experts help to make a good death possible in their own home? In this lecture, three major challenges are discussed, based on the available evidence, and the specific situation in Norway: 1) how can we improve palliative care for non-cancer, older persons in nursing homes? 2) how can we use our knowledge and expertise to increase 'good' dying at home for older, non-cancer patients; 3) what competencies do we need from physicians to assure a good death in long term care patients?

Communication 3: Rehabilitation aspects of nursing home medicine & care. W. Achterberg (*Leiden University Medical Center, The Netherlands*)

Older people often experience acute impairment in their functional capacity, because of a stroke, hip fracture or another medical event. In many Western countries, older persons can make use of nursing homes (skilled nursing home facilities) for rehabilitation to their own home environment. Returning to the pre-morbid level of activity and participation is a major challenge, and this can often not be achieved. Therefore, Geriatric Rehabilitation (GR) has its own dynamics. In addition, GR has to cope with potentially disturbing factors, that are more influential in older people, such as comorbidity and fear of falling. In this lecture, the specific impact of comorbidity (in older persons with stroke) and fear of falling (in older persons with a hip fracture) on successful rehabilitation are discussed based on two current systematic literature reviews. What are the specific competencies of nursing home physicians that are needed to obtain the best possible outcomes?

S8- PATIENTS WITH KORSAKOFF SYNDROME LIVING IN SPECIALISED LONG-TERM CARE FACILITIES, WHAT DO WE KNOW? RESULTS FROM 3 SCIENTIFIC STUDIES.

E.M.L. Verschuur (*Atlant Care Group, Nursing Home Markenhof, Beekbergen, the Netherlands; Faculty of Health and Social Studies HAN University of Applied Sciences, Nijmegen, the Netherlands*)

The Netherlands has a long-standing tradition of long-term care for patients with Korsakoff syndrome (KS) living in specialised wards. Care staff experience that these specialised wards have a positive effect on cognitive, emotional and social functioning of KS patients. Very limited literature exists on the long-term care for these patients and this patient group has hardly been studied to-date. In this symposium the results of three studies on KS patients living in long-term care facilities will be presented. The symposium will start with a short outline of the syndrome.

Communication 1: The functional status and quality of life of patients with Korsakoff syndrome living in long-term care facilities: results from the KORSAKOFF-study. I.J. Gerritzen^{1,2,3}, K.J. Joling^{1,2}, E.M.L. Verschuur^{3,4}, R.B. Veenhuizen^{1,2}, C.M.P.M. Hertogh^{1,2} (1. *Department of General Practice & Elderly Care Medicine, VU University Medical Center, Amsterdam, the Netherlands*; 2. *EMGO Institute for Health and Care Research, VU University Medical Center, Amsterdam, the Netherlands*; 3. *Atlant Care Group, Nursing Home Markenhof, Beekbergen, the Netherlands*; 4. *Faculty of Health and Social Studies HAN University of Applied Sciences, Nijmegen, the Netherlands*)

Backgrounds: Staff caring for patients with Korsakoff syndrome (KS) residing in long-term care facilities (LTCFs) frequently encounters challenging behavioural symptoms. These symptoms may cause distress to patients and care staff and can lead to inappropriate prescription of psychotropic drugs. There is hardly any literature about the characteristics, quality of life and care needs of KS patients. This study aimed to get insight into the functional status, behavioural symptoms, awareness, quality of life and use of psychotropic drugs of patients with KS living in specialised LTCFs. **Methods:** A cross-sectional observational study was conducted among KS patients living in specialised LTCFs in the Netherlands. Behavioural symptoms were measured with the Neuropsychiatric Inventory-Questionnaire (NPI-Q). Functional status, cognition, awareness of deficits and quality of life were also measured with validated and reliable assessment instruments during interviews with care staff and patients. Prescription of psychotropic drugs was derived from patients' records. **Results:** A total of 285 residents with KS from 9 specialised LTCFs participated in this study. The mean age was 63 years (SD 7.9) and 78% was male. The total NPI-Q score (0-36) was 8.7 (SD 5.9). The most common neuropsychiatric symptoms were irritability (67%), agitation (58%), disinhibition (52%) and apathy (49%). A substantial proportion of patients (95.1%) had at least one neuropsychiatric symptom. The prevalence of psychotropic prescription was 48% for antipsychotics, 39% for antidepressants, and 36% benzodiazepines. Furthermore, patients had mild impairments on cognitive and social functioning and were reasonably satisfied with overall quality of life. Disease awareness was moderately impaired. **Conclusion:** KS patients residing in LTCFs presented a wide range of neuropsychiatric symptoms and they were often prescribed psychotropic drugs. A better insight into the identified prevalent behavioural disturbances in KS patients may be needed to help care staff in better managing challenging behavioral problems and reducing inappropriate prescription of psychotropic drugs. The results of this study will provide an evidence base to develop specific guidelines for care of

institutionalised patients with KS. This may, subsequently, lead to increasing quality of life of these patients.

Communication 2: Executive dysfunction in patients with Korsakoff syndrome in long-term care facilities. W. Moerman – van den Brink¹, E. M.L. Verschuur^{1,2}, L. van Aken^{3,4,5}, J.I.M. Egger^{3,4,5}, R.P.C. Kessels^{3,4,5} (1. *Atlant Care Group, Nursing Home Markenhof, Beekbergen, the Netherlands*; 2. *Faculty of Health and Social Studies HAN University of Applied Sciences, Nijmegen, the Netherlands*; 3. *Donders Institute for Brain, Cognition and Behaviour, Radboud University, Nijmegen, the Netherlands*; 4. *Behavioural Science Institute, Radboud University, Nijmegen, the Netherlands*; 5. *Vincent van Gogh Institute for Psychiatry, Venray, the Netherlands*)

Backgrounds: Executive dysfunction is a common feature in Korsakoff syndrome (KS) underlying many daily life problems. To explore these impairments the 'unity/diversity framework' of Miyake and Friedman (2012) is used, consisting of three EF factors: shifting, updating and inhibition. **Methods:** In this study, we aimed to include 50 KS patients and 50 healthy volunteers. Exclusion criteria are: age over 70 and other brain disorders such as brain tumor, epilepsy or stroke. Patients also will be excluded when they are not abstinent of alcohol longer than three months, the volunteers will be excluded if they have an alcohol-use disorder based on the 'five-shot questionnaire'. Both groups are asked to complete six specifically designed neuropsychological tests, which are computerized in PsychoPy 1.82.01 (Peirce, 2007). These tests are adaptive versions of the tests proposed by Friedman et al. (2008). Premorbid intelligence is measured with the Dutch version of the National Adult Reading Test (NLV) and general cognitive functioning with the Montreal Cognitive Assessment (MoCA). Additionally the primary responsible nurse of the patients will fill in four observational questionnaires: the Dysexecutive Questionnaire (DEX), the Behavior Rating Inventory of Executive Function – Adult version (BRIEF-A), the abbreviated Apathy Evaluation Scale (AES-10) and the Neuropsychiatric Inventory – Questionnaire (NPI-Q). **Results:** Fifty-three patients and twenty-two volunteers fulfilled the inclusion criteria. Ten patients gave no informed consent and one was not able to complete the tests. Currently, 34 patients (mean age 62.0 year; 18.8% woman; estimated intelligence 92.0) and 16 volunteers (mean age 59.8 year; 42.8% woman; estimated intelligence 106.9) are tested. Preliminary results show that the majority of patients is able to complete these computerized measurements. The groups differ in general cognitive functioning as measured with the MoCA (mean score patients 16.8; volunteers 25.6). We are still recruiting patients and volunteers to participate in the study. At time of the conference the full data set will be completed and analyzed and results will be presented. **Conclusion:** As far as we know, this is the first study using the 'unity/diversity framework' of Miyake and Friedman (2012) and specifically designed tasks to measure the three EF factors in KS patients. At this point we can conclude that the majority of the patients seems to be able to complete the tests.

Communication 3: Work-related occupational therapy for residents with Korsakoff syndrome; a qualitative study design. A. van Doorn - Klomberg¹, H. ten Tije¹, E. Verschuur^{1,2} (1. *Atlant Care Group, Nursing Home Markenhof, Beekbergen, the Netherlands*; 2. *Faculty of Health and Social Studies HAN University of Applied Sciences, Nijmegen, the Netherlands*)

Backgrounds: Atlant Care Group facilitates work-related occupational therapy for approximately 130 residents with Korsakoff syndrome (KS). A unique feature of this facility, the Day Activity

Center (DAC), is the concept of sheltered employment. Formal caregivers aim to create a working environment that closely resembles real life within a long-term care facility setting. The caregivers use a mix of different methods, intuitive actions and implicit knowledge. However, no clear evidence is available on the quality of care provided. The objective of this study is to identify which methods, approaches and tools are successful in facilitating work-related occupational therapy. **Methods:** A qualitative study is performed in which multiple narrative in-depth interviews are conducted with 14 formal caregivers. They are asked to describe best practices; examples of day-to-day situations in which they have experienced that a certain approach has added value for the residents. Furthermore, they are asked to reflect on which aspects regarding residents, staff and organisation are important in this situation. Additional information is gathered through observations. All interviews are transcribed verbatim and coded in Atlas.ti using an open coding system. Data collection and analysis form a cyclical process; observations and analysis results are used to formulate further interview questions until data saturation is reached. Using a narrative inquiry approach, themes emerged from the interviews are constructed around examples of good practice. **Results:** Preliminary results show that so far, recurrent themes in the interviews are communication between staff and resident, content of the work that is provided for residents and team climate. All themes will be explored to create insight in the complex manner in which aspects of methods and approaches interact. Part of the output of this study consists of increased insight among participating staff and a set of case descriptions that can be used for educational purposes. **Conclusion:** This study will provide valuable information on a unique type of occupational therapy for KS residents. Insight is gained into which methods, approaches and tools are used at the DAC.

ORAL COMMUNICATIONS

OC1- CHANGING TALK TO REDUCE RESISTIVENESS IN DEMENTIA CARE. K.N. Williams¹, Y. Perkhounkova¹, R. Herman², A. Bossen¹ (1. *University of Iowa College of Nursing, Iowa City, Iowa, USA*; 2. *University of Kansas Center for Public Partnerships and Research, Lawrence, Kansas, USA*)

Introduction: A growing number of persons with Alzheimer's disease and other dementias (PWD) are cared for in nursing homes (NHs) where staff shortages and a lack of dementia care skills limit staff's ability to provide quality care. PWD lose their cognitive and communication abilities and are unable to express unmet physical, psychological, and social needs and instead respond with dementia related behaviors (aggression, vocal outbursts, wandering, and withdrawal) or resistiveness to care (RTC). RTC increases staff time, stress, and NH costs. RTC is linked to elderspeak communication. **Objectives:** Communication training (CHAT) was provided to staff to reduce their use of elderspeak. We tested the hypothesis that the CHAT intervention would improve staff communication by reducing elderspeak use and that this would subsequently reduce RTC. **Methods:** Thirteen NHs volunteered and were randomized to intervention and wait-list control groups. Dyads (n = 42) including 29 staff and 27 residents with dementia were video recorded during daily care before and/or after the intervention, and at a three month follow-up. Videos were behaviorally coded using specialized computer software for 1) staff communication (normal, elderspeak, or silence) and 2) resident behaviors (cooperative or RTC). Linear mixed modeling was used to evaluate training effects. **Results:** On average elderspeak declined from 34.6% (SD = 18.7) at baseline by 13.6 percentage points (SD = 20.00) post-intervention and 12.2 percentage

points (SD=22.0) at 3- month follow-up. RTC declined from 35.7% (SD = 23.2) by 15.3 percentage points (SD = 32.4) post-intervention and 13.4 percentage points (SD=33.7) at 3-months. Linear mixed modeling determined that change in elderspeak was predicted by the intervention (b = -12.20, p = .028) and baseline elderspeak (b = -0.65, p < .001) while RTC change was predicted by elderspeak change (b = 0.43, p < .001); baseline RTC (b = -0.58, p < .001); and covariates (communication disability and increased comorbidities reduced effectiveness of improved communication. **Discussion:** A brief intervention can improve communication and reduce RTC, providing an effective nonpharmacological intervention to manage behavior and improve the quality of dementia care. **Conclusion:** These results support the critical importance of communication in dementia care.

OC2- SCREAM SUPPORTING CLINICAL RULES ENGINE IN THE ADJUSTMENT OF MEDICATION. C. Mestres Gonzalvo¹, Z. Safipour¹, A.P.B.M. Braeken², B.P.C. van Oijen¹, H.A.J.M. de Wit³, B. Winkens⁴, R. Janknegt¹, F.R. Verhey⁵, J.M.G.A. Schols⁶, P.H.M. van der Kuy¹ (1. *Department of Clinical Pharmacy, Pharmacology and Toxicology, Zuyderland Medical Centre, Sittard-Geleen, The Netherlands*; 2. *Department of Resources Mobilisation and Funding, Zuyderland Medical Centre, Sittard-Geleen, The Netherlands*; 3. *Department of Clinical Pharmacy, Pharmacology and Toxicology, Zuyderland Medical Centre, Heerlen, The Netherlands*; 4. *Department of Methodology and Statistics, CAPHRI-School for Public Health and Primary Care, Maastricht University, Maastricht, The Netherlands*; 5. *Department of Psychiatry and Neuropsychology, Alzheimer Centrum Limburg/School for Mental Health and Neurosciences, Maastricht University, Maastricht, The Netherlands*; 6. *Department of General Practice and Department of Health Services Research, CAPHRI-School for Public Health and Primary Care, Maastricht University, Maastricht, The Netherlands*)

Background: The simultaneous use of multiple drugs increases the risk of suboptimal treatment. This is due to the fact that drugs can counteract each other, exacerbate certain diseases or cause physicians to be reluctant in prescribing new drugs. This situation is strengthened in nursing homes. In order to optimize treatment it is important for physicians and pharmacists to perform Medication Reviews (MR) on a regular basis. Preparing and performing a MR is both time-consuming and quickly outdated because new data is available. Furthermore, it remains a snapshot highly dependent on the knowledge and awareness of the healthcare providers. **Methods:** In this study, a computer program, the Clinical Rules Reporter (CRR) was developed. The CRR supports the healthcare provider in performing MR. The CRR was used as a healthcare intervention to evaluate the effect it may have on the target setting (nursing homes) during one year. Different aspects around the MR process were compared when using the CRR vs normal MR: the time to perform a MR, the amount of interventions, the quality of life, the costs related to hospital admission, the average medication costs per patient and the costs of a MR. A total of 779 patients were included in the study. Randomization took place per main nursing home physician and stratified per ward (somatic and psychogeriatric). In the intervention group the CRR was used once weekly in the control group only regular care was applied (1-2x MR a year). **Results:** The CRR showed a factor 10 time reduction (in terms of man-hours) compared to the regular MR. On average 5,4 clinically relevant interventions per patient per year were performed. No clinically or statistically significant difference was found for the quality of life (using EQ-5D) between both groups. No difference was found in the costs related to hospital admissions or the amount

of hospital admissions. We found a statistically significant difference for medication costs, being the costs higher in the control group. Finally, the CRR shows a positive effect on the costs to perform a MR reducing the working time up to a 90% with the consequent personnel costs reduction. **Conclusion:** Given the results we believe in the positive effect the CRR has on the nursing home setting. It doesn't seem logic to perform just one MR a year when the status of the patient and his medication might change every day. Seeing the results we expect that physicians will prescribe more rationally when getting the CRR signs. In addition, it seems that the use of the CRR leads to a positive effect on the nursing homes costs (man-hours and medication costs). However, more research is still needed.

OC3- THE EFFECTIVENESS OF A PRESSURE ULCER PREVENTION PROGRAMME FOR OLDER PEOPLE IN FOR-PROFIT PRIVATE NURSING HOMES: A CLUSTER RANDOMISED CONTROLLED TRIAL. E.W.Y. Kwong¹, P.H. Lee², R.Y.C. Kwan², K.M. Yeung³, S.S.M. Law³, N. Long² (1. School of Nursing, the Hong Kong Polytechnic University, Hong Kong; 2. School of Nursing, the Hong Kong Polytechnic University; 3. Princess Margaret Hospital, Hong Kong)

Background: Pressure ulcer (PU) incidence of for-profit private nursing homes in Hong Kong is relatively higher than that in government-subsidized nursing homes. This may be caused by that majority of care staff members are non-professional and there are no structured and comprehensive care protocol to guide staff's practice in prevention of PUs in many for-profit private nursing homes. In this regard, our research team developed a staff-acceptable pressure ulcer prevention programme including an intensive training to non-professional staff and a PU prevention protocol for such nursing homes through an action research. However, the effect of this programme has not yet known so we aimed to test the effect of this prevention programme on care staff's PU prevention knowledge and skills and PU incidence in this study. **Methods:** This is a cluster randomized control trial. A total of 425 participants with or without pressure ulcers and 59 care staff who are health workers and personal care workers from six for-profit nursing homes with similar resident-staff ratio participated in this study. The control group delivered the usual practice in pressure ulcer prevention, while the experimental group was implemented a 3-hour intensive training followed by a 16-week pressure ulcer prevention protocol. The staff participants were assessed on their knowledge and skills before the commencement of the training, at the 8th week and at the end of the implementation of the protocol. Besides, skin inspection to each resident participant was carried out once every two days for detection of the first PUs (on residents without PUs) and new PUs (on residents already suffering from PUs). GEE was adopted to analyze the differences of knowledge and skills and survival analysis and Cox regression were used for the analysis of PU incidence. **Results:** Out of 425 resident participants, 286 (67.3%) were from the experimental group. At the baseline, 36 (8.5%) had PUs. On average each participant was observed for 117.8 days (SD =51.2). The PU incidence including the first and new PUs in the experimental group and control group was 23.8% and 42.4% ($p < 0.001$). Cox regression showed that, relative to control group, the hazard ratio for PU occurrence in the experimental group was 0.29 (95% CI: 0.19, 0.44, $p < 0.001$). Sub-group analysis of first and new PU incidence of the experimental group was also significantly lower ($p < 0.001$). The cox regression showed that relative to the control group, the hazard ratio for occurrence of the first and new PUs in the experimental group was below 0.4. However the knowledge and skills of staff participants were not significantly different. **Conclusion:** Overall, the experimental group had relatively lower PU incidence

and lower risk of developing PUs although there are no differences in staff's knowledge and skills between two groups. This has implied that the prevention protocol is important in PU prevention in for-profit private nursing homes. The evidence-based PU prevention protocol was developed for for-profit nursing homes in Hong Kong or for nursing homes having similar characteristics of Hong Kong for-profit nursing homes in other regions and countries.

OC4- A NOVEL APPROACH TO MONITORING FUNCTION AND FALL RISK IN ELDERLY PEOPLE IN THE NURSING HOME SETTING. M.E. Williams^{1,2} (1. Clinical Professor of Medicine and Geriatrics, School of Medicine, University of North Carolina, Chapel Hill, North Carolina, USA; 2. Co-Founder, LifeGait, Inc.)

Background: Recent technological advances have led to the development of small wearable microelectronic sensors (accelerometers) that detect motion, gravitational acceleration, and velocity with six degrees of freedom (forward-backward, up-down, and side-to-side plus rotational vectors). We have used these motion sensors to create new analytical tools called biokinotographs (BKGs) for more precise screening, diagnosing, monitoring, assessment and predicting of function by sophisticated analysis of the unique electronic motion signature of elderly nursing patients as they ambulate. This presentation will summarize our current efforts to translate this new technology into novel clinical and research tools for improving function, reducing injurious falls, and diagnosing orthopedic and neurological conditions for nursing home residents. **Methods:** One preliminary study evaluated the feasibility and utility of incorporating these wearable devices to identify risk of falling and needs for long-term care. Twenty members of a life care community agreed to participate. Fourteen participants had not fallen in the past year while 6 individuals either admitted falling or had evidence in their medical record of previous falls. Prior to testing a senior geriatrician rated each participant's vulnerability to move to a higher level of long-term care on a 3-point scale (most vulnerable, moderately vulnerable, and least vulnerable). Subjects wore wristwatch-sized accelerometers attached with Velcro straps on their right wrist, sacrum, and on each ankle while walking a closed 30 meter course. **Results:** Remarkable visual differences in "functional walking signatures" were evident on the BKGs between fallers and non-fallers. Spectral analysis of these data clearly shows a single peak between 2.0 and 2.5 Hz representing a consistent steady gait, which dominates the non-faller's spectrum. The faller's spectrum is more widely distributed with 4 peaks of considerably lower amplitude and a substantial amount of energy dispersed from 1 to 12 Hz. The peak amplitude and spectral frequency count were highly correlated with the geriatrician's vulnerability rating ($F=11.7$, $p>0.002$ and $F=8.65$, $p>0.006$). **Conclusions:** We conclude that in the nursing home setting, electronic functional signatures may be associated with clinically meaningful events and suggest that this area is rich in potential for additional studies using this technology.

OC5- THE UMDEX STUDY: WALKING AIDS MODERATE EXERCISE EFFECTS ON GAIT SPEED IN PEOPLE WITH DEMENTIA. A. Toots^{1,2}, H. Littbrand^{1,2}, H. Holmberg³, P. Nordström², L. Lundin-Olsson¹, Y. Gustafson², E. Rosendahl^{1,2} (1. Department of Community Medicine and Rehabilitation, Physiotherapy, Umeå, University, Umeå, Sweden; 2. Department of Community Medicine and Rehabilitation, Geriatric Medicine, Umeå University, Umeå, Sweden; 3. Department of Public Health and Clinical Medicine, Umeå University, Umeå, Sweden)

Background: Dementia is frequently accompanied by deficits to balance and gait, which are important for independence in activities of daily living and promote health. Although gait is slow among residents in nursing homes, where dementia is common, for many it remains functional and important to preserve. In addition, many older people with dementia living in nursing homes use walking aids to improve gait performance by alleviating impaired balance or pain. Subsequently, gait speed measured using a walking aid could limit detection of gait deficits, thus reduce responsiveness of the test. **Objectives:** To investigate the effects of exercise on gait speed, when tested using walking aids and without, and whether effects differed according to amount of support in the test. **Methods:** The Umeå Dementia and Exercise (UMDEX) study is a cluster-randomised controlled trial set in 16 nursing homes. Residents with dementia diagnosis, dependent in ADLs, and Mini-Mental State Examination (MMSE) score of at least 10, were randomised to either exercise or control activity. The structured physical exercises were based on the High-Intensity Functional Exercise (HIFE) program, which aims to improve lower limb strength, balance, and mobility. The HIFE program comprises 39 exercises performed in functional, weight-bearing positions. The control activity included activities while in a sitting position, such as, reading, singing and conversing. Physiotherapists and occupational therapists led each activity; 45-minute sessions, 2-3 times per week, for 4 months. Blinded assessors measured 4-meter usual gait speed with walking aids (GS) if any, and without walking aids and with minimum amount of support (GS-noWA), at baseline, 4 months (on intervention completion), and 7 months. **Results:** One hundred-and-forty-one women and 45 men (mean age 85 years) were included, of whom 145 (78%) habitually used walking aids. Linear mixed models showed no between-group effect in either gait speed test at 4 or 7 months. In interaction analyses exercise effects differed significantly between participants that walked unsupported compared with when walking aids or minimum support was used. Significant between-group exercise effects on gait speed were found at 4 and 7 months in participants that walked unsupported. **Conclusion:** In people with dementia living in nursing homes exercise had positive effects on gait when tested unsupported compared with when walking aids or minimum support was used. The study suggests that the use of walking aids in the gait speed test may conceal exercise effects.

OC6- WHEN AND WHY DO WE FALL IN NURSING HOMES? T. Delespierre¹, P. Denormandie¹, T. Dantoine², D. Armaingaud¹, L. Jossieran¹ (1. Institut du Bien Vieillir Korian, Paris & University of Paris - Saclay, Versailles, France; 2. CHU de Limoges, Limoges, France)

Background: Korian is a private European group specialized in medical accommodation for elderly and dependent people in 700 institutions in 4 European countries: France, Germany, Belgium and Italy. A professional data warehouse set up in 2010 hosts all residents' data: at the core of this system, the transmissions' table containing key information about the residents' care fed on a daily basis. Data

takes the form of big size character fields (of up to 4,000 characters). Using residents' and nursing homes' (NH) indexes and transmissions' dates, we can follow each resident through time with queries and text mining. Using this data scheme, we could study residents' falls as a frequent and well fed event in the residents' lives as well as a major public health concern in France [1, 2] and almost everywhere [3, 4]. **Methods:** A deep learning algorithm built 21 syndromes afflicting our residents: a first layer shortened the character fields to 300 characters and cleaned up expressions, a second selected the syndromes, and the third involved medical expertise, logical operators and predicates. We choose to collect all syndromic data recorded from 127 NH in France through [11/01/2010 - 05/01/2016]. All residents had their 21 syndromes fed, falls included, plus their hospitalizations and/or death, gender, age at the NH entry and at the first fall, finally the month of the first fall. We chose to cut the number of falls into four quartiles (Q1 through Q4, see annex), the goal being to compare them and general population syndromic numbers of residents, using the Chi2-test, find falling risk factors and model falls. **Results:** We found 41,717 residents, 69.7% of them fallen at least one time with 18,181 fallen through a 12 months period. They first fell an average time of one year after their entry. The number of falls in one year spanned from one to 54 times with respectively 6,771 (Q1=falling one time), 3,801 (Q2=falling 2 times), 3,844 (Q3=falling 3 or 4 times) and 3,765 (Q4=falling at least 5 times) residents. The most striking falls features comparing Q1 and Q4 syndromic ratios were dementia (40.7% vs 71.3%), hospitalizations (36.8% vs 64%), cardio-vascular problems (39.9% vs 63%), malnutrition (55.1% vs 80.2%) and altered general state (64.3% vs 92.2%), with all p-values < 2.2x10⁻¹⁶. We also found that residents fell more in March and April (1824 and 1,788 falls) and less in September (1,307 falls) and that people from Q4 stayed longer and lived longer after their last hospitalization than those from Q1 longer (9 vs 10 months and 30 versus 13 days). **Conclusion:** As number of falls increases with time, we restricted our study to falls spanned through one year and found that unique falls' consequences seemed more severe than those of re-falls as staying and last hospitalization survivals were greater for recurrent fallers. Fall's gravity varies greatly but, by gathering hospitalizations, deaths and falls' circumstances we will be able through textmining to qualify them both, quantitatively and qualitatively, offering a precise and vivid picture of residents' falls. References: [1]http://www.has-sante.fr/portail/upload/docs/application/pdf/2013-04/referentiel_concernant_evaluation_du_risque_de_chutes_chez_le_sujet_age_autonome_et_sa_prevention.pdf; [2]http://www.has-sante.fr/portail/upload/docs/application/pdf/2009-06/chutes_personnes_agees_synthese.pdf; [3] http://ageing.oxfordjournals.org/content/38/2/194.full; [4]http://www.cdc.gov/homeandrecreationsafety/falls/nursing.html

| Number of falls Q1 quartile | | | | Number of falls Q4 quartile | | | | Resident population entered before 05/01/2016 | | | |
|---|-------|----|------|-----------------------------|------|----|------|---|-------|----|------|
| mean (number of falls through one year) | | | | 1 | | | | 8.5 | | | |
| total numbers | 6 771 | | | 3 765 | | | | NA | 41 | | |
| mean(age) at NH entry | 85.3 | | | 85.8 | | | | NA | 717 | | |
| mean(age) at first fall | 86.3 | | | 86.5 | | | | NA | 85.1 | | |
| men/women ratio | 31.8% | | | 40.7% | | | | 32.1% | | | |
| last hosp-death delay in days | 13.4 | | | 30.6 | | | | 39.1 | | | |
| SYNDROME | | | | EFFECTIFS | | | | Q1 RATIO | | | |
| FALLS | 6771 | Q1 | 100 | FALLS | 3765 | Q4 | 100 | BEHAVIOR | 34613 | TS | 87.1 |
| BEHAVIOR | 5695 | Q1 | 84.1 | PAIN | 3729 | Q4 | 99.0 | PAIN | 33997 | TS | 85.6 |
| PAIN | 5686 | Q1 | 84.0 | BEHAVIOR | 3724 | Q4 | 98.9 | DEPRESSION_DARK_THOUGHTS | 33210 | TS | 83.6 |
| DEPRESSION_DARK_THOUGHTS | 5428 | Q1 | 80.2 | CUTANEOUS_STATE | 3665 | Q4 | 97.3 | CUTANEOUS_STATE | 32284 | TS | 81.3 |
| CUTANEOUS_STATE | 5244 | Q1 | 77.4 | DEPRESSION_DARK_THOUGHTS | 3659 | Q4 | 97.2 | ALTERED_GENERAL_STATE | 28716 | TS | 72.3 |
| ALTERED_GENERAL_STATE | 4932 | Q1 | 64.3 | ALTERED_GENERAL_STATE | 3471 | Q4 | 92.2 | FALLS | 27708 | TS | 69.7 |
| MALNUTRITION_SWALLOWING | 3732 | Q1 | 55.1 | INTESTINAL_TRANSIT | 3087 | Q4 | 82.0 | INTESTINAL_TRANSIT | 25748 | TS | 64.8 |
| INTESTINAL_TRANSIT | 3724 | Q1 | 55.0 | MALNUTRITION_SWALLOWING | 3019 | Q4 | 80.2 | MALNUTRITION_SWALLOWING | 25195 | TS | 63.4 |
| DEMENTIA | 2759 | Q1 | 40.7 | DEMENTIA | 2686 | Q4 | 71.3 | DEMENTIA | 20966 | TS | 52.8 |
| CARDIO_VASCULAR | 2702 | Q1 | 39.9 | HOSPITALIZATION | 2411 | Q4 | 64.0 | CARDIO_VASCULAR | 19632 | TS | 49.4 |
| DEATH | 2538 | Q1 | 37.5 | CARDIO_VASCULAR | 2371 | Q4 | 63.9 | HOSPITALIZATION | 18832 | TS | 47.4 |
| HOSPITALIZATION | 2489 | Q1 | 36.8 | URINARY_TRACK_TROUBLES | 2124 | Q4 | 56.4 | URINARY_TRACK_TROUBLES | 18037 | TS | 45.4 |
| URINARY_TRACK_TROUBLES | 2471 | Q1 | 36.5 | DEATH | 1940 | Q4 | 53.5 | DEATH | 15994 | TS | 40.3 |
| VISION | 1499 | Q1 | 22.1 | DEHYDRATION | 1347 | Q4 | 35.8 | VISION | 12082 | TS | 30.4 |
| DEHYDRATION | 1381 | Q1 | 20.4 | SLEEP | 1302 | Q4 | 34.6 | ORAL_HEALTH | 11138 | TS | 28.0 |
| ORAL_HEALTH | 1221 | Q1 | 18.0 | ORAL_HEALTH | 1277 | Q4 | 33.9 | DEHYDRATION | 10889 | TS | 27.4 |
| LI | 1167 | Q1 | 17.2 | VISION | 1269 | Q4 | 33.7 | SLEEP | 9619 | TS | 24.2 |
| SLEEP | 1055 | Q1 | 15.8 | LI | 994 | Q4 | 26.4 | LI | 9466 | TS | 23.8 |
| VACCINATION | 773 | Q1 | 11.4 | VACCINATION | 810 | Q4 | 21.5 | VACCINATION | 7710 | TS | 19.4 |
| ALLERGIES | 688 | Q1 | 10.2 | HEARING | 618 | Q4 | 16.4 | ALLERGIES | 5142 | TS | 12.9 |
| CANCER | 639 | Q1 | 9.4 | ALLERGIES | 538 | Q4 | 14.3 | AGE | 4880 | TS | 12.5 |
| AGE | 566 | Q1 | 8.4 | CANCER | 537 | Q4 | 14.3 | CANCER | 4463 | TS | 11.2 |
| HEARING | 473 | Q1 | 7.0 | AGE | 515 | Q4 | 13.7 | HEARING | 4363 | TS | 11.0 |

Syndromic comparative analysis of Q1 and Q4, per year number of falls extreme quartiles, of the 18 181 residents fallen at least once through 12 months through [11/01/2010 - 05/01/2016] and comparison with the 41 717 resident population entered before 05/01/2016

OC7- ASSESSMENT OF ENERGY EXPENDITURE OF NURSING HOME RESIDENTS WITH INDIRECT CALORIMETRY. F. Buckinx^{1,2}, N. Paquot³, M. Fadeur³, L. Bacus⁴, J.Y. Reginster^{1,2}, S. Allepaerts⁵, J. Petermans⁵, S. Biquet⁴, O.Brüyère^{1,2,3} (1. Department of Public Health, Epidemiology and Health Economics, University of Liège, Belgium; 2. Department of Public Health, Support Unit in Epidemiology and Biostatistics, University of Liège, Belgium; 3. Diabetes, nutrition and metabolic diseases, CHU of Liège, Belgium; 4. Nutrition and Dietetics, Haute Ecole de la Province de Liège, Belgium; 5. Geriatrics Department CHU of Liège, Belgium)

Introduction: The aim of this study was to assess the energy expenditure of nursing home residents with indirect calorimetry and then to compare it with the calculated energy intake of the residents. **Methods:** An indirect calorimetry was performed for each nursing home resident included in this study to estimate their basal metabolism. Then, the basal metabolism was multiplied by a physical activity level (PAL) coefficient. Finally, energy expenditure related to thermogenesis (i.e. 10% of the basal metabolism) was added. In this way, we obtained the total energy expenditure of each nursing home resident. Nutritional intake of each resident was calculated by the precise weighing food method, over a 3-day period. **Results:** A total of 29 subjects, all residing in one nursing home in Liège, Belgium, and meeting the selection criteria (i.e. to be oriented, stable condition and able to walk, with or without technical assistance) were included in this study. The mean age of this population was 88.1 ± 5.8 years and 84% of them were women. The mean basal metabolism estimated was 1087.2 ± 163.2 kcal. When multiplied by the PAL (1.29 ± 0.1) and added to the energy expenditure due to thermogenesis (155.7 ± 24.7 kcal), we obtained the mean energy expenditure of 1557.3 ± 247.1 kcal, which was similar to the calculated energy intake of the residents (1631.5 ± 289.3 kcal). Indeed, the difference was not statistically significant ($p=0.33$). **Conclusion:** The estimated energy intake of nursing home residents seems appropriate for their energy expenditure.

OC8- MEDICATION REVIEW BASED ON CLINICAL EVALUATION IN NURSING HOMES; RESULTS FROM A EFFECTIVENESS-IMPLEMENTATION CLUSTER RANDOMIZED CLINICAL HYBRID TRIAL (COSMOS). C. Gulla¹, E. Flo^{1,2}, R. Kjome³, B.S. Husebo^{1,4} (1. Centre for Elderly and Nursing Home Medicine, Department of Global Public Health and Primary Care, University of Bergen, Norway; 2. Department of Clinical Psychology, University of Bergen, Norway; 3. Research Group in Social Pharmacy, Department of Global Public Health and Primary Care, University of Bergen, Norway; 4. Municipality of Bergen, Norway)

Backgrounds: Medication reviews are important to optimize the drug treatment for nursing home patients. However most fail to include a systematic assessment of the common complaints depression, pain, and neuropsychiatric symptoms. This article aims to show implementation and effect of a medication review including these assessments. **Method:** The medication reviews were a part of the multicomponent COSMOS trial, a cluster randomized effectiveness-implementation hybrid trial in 67 nursing home units in Norway. Nurses and doctors in the intervention units received the COSMOS education program. Medication reviews with the doctor, nurse, and researchers were based on a comprehensive testing of the patient's clinical and mental health, cognitive function, and pain. The team discussed the drugs in light of the assessments, nurses' description, medical records, and blood tests. The START/STOPP criteria, anticholinergic lists, and interaction analyses supported decisions.

Implementation was measured with a structured log of activities for each patient. Difference in drug use between the groups at month 4 were measured with independent sample t-test. **Results:** Overall, 545 patients were included, 297 in the intervention group. Six of the 15 most prescribed drugs were drugs for pain and neuropsychiatric symptoms; however the diagnoses did not reflect this. After four months 69% of the patients had had a medication review. Few drugs were started after a pause, and most patients had changes in their health status recorded. The intervention was implemented in over 2/3 of the patients in 69% of the units, and in less than 1/3 of the patients in 8% units. Regular drugs were reduced from a mean of (standard deviation) 7.5 (3.8) at baseline to a mean of 6.1 (4.4) in the control and 5.3 (3.7) in the intervention group ($p=0.03$). **Conclusion:** Drugs treating pain, neuropsychiatric symptoms, and depression are common in nursing home patients. To include information on these problems are possible in medication reviews and it reduced regular drug use. The trial was registered at clinicaltrials.gov (NCT02238652).

OC9- A SYSTEM OF ADVANCE CARE PLANNING FOR NURSING HOMES. G.A Caplan^{1,2}, A. Meller¹, B. Squires³, S. Chan¹, W. Willett⁴ (1. Prince of Wales Hospital, Sydney, Australia; 2. University of New South Wales, Sydney, Australia; 3. Aged Care Benevolent Society, Sydney, Australia; 4. Anglicare Chesalon Aged Services, Sydney, Australia)

Introduction: Nursing homes (NHs) provide chronic care for frail older people, often palliative care, for people with end-stage dementia. People are being admitted to NHs later in life, with more advanced illness and worse prognosis, and therefore developing acute illness more frequently. So, the number of NH residents in hospital is increasing although hospital admission rarely improves and is often deleterious to their health. **Objectives:** We hypothesized that keeping NH residents out of hospital may improve their outcomes, but realised that it would need decision maker agreement before this could be done. We evaluated a system of advance care planning (ACP) in NHs. One clinical nurse consultant educated residents, their families, staff and general practitioners about outcomes of dementia and ACP. The intervention area consisted of two hospitals and the 21 NHs around them and the control area another, geographically separate, hospital and the 13 NHs around it. We compared emergency admissions to hospital from NHs. **Results:** Emergency calls to the ambulance service from intervention NHs decreased (intervention versus control; -1 versus $+21\%$; $P = 0.0019$). The risk of a resident being in an intervention hospital bed for a day compared with in a control hospital bed, per NH bed, fell by a quarter from being initially similar [Relative Risk (RR) = 1.01; 95% confidence interval (CI) 0.98–1.04; $P = 0.442$] to being lower (RR = 0.74; 95% CI 0.72–0.77; $P<0.0001$). There was no significant change in mortality in the intervention NHs, but in the control NHs mortality rose in the third year to be 11.2 per 100 beds higher than in the intervention area ($P<0.05$). **Conclusion:** ACP in NHs can result in decreased hospital admission and mortality of NH residents.

OC10- A STUDY TO REVIEW CLINICAL PRACTICE ISSUES OF THE AGED HOMES OF THE YUEN YUEN INSTITUTE TO ENHANCE THE QUALITY OF RESIDENTIAL CARE. C. Lai¹, J. Liu¹, R. Lee¹, E. Kwong¹, R. Kwan¹, P. Kor¹, A. Tang², A. Chung² (1. School of Nursing, The Hong Kong Polytechnic University, Hong Kong SAR; 2. Social Welfare Department, The Yuen Yuen Institute, Hong Kong SAR)

Background: In 2015, the Social Services Department of the Yuen Yuen Institute (YYI), a non-governmental organization in

Hong Kong, commissioned the Centre for Gerontological Nursing (CGN) to examine care practices in their nursing homes to ensure that their clinical practices are up-to-date and evidenced-based. Back in 2011, the CGN and the YYI formally began their collaborative relationship in a study that examined the quality of life (QOL) of residents in one of the long-term residential care facilities run by the YYI. The current project is a follow-up study of the issues raised in the 2011 QOL study. The objectives of the current study include: (1) to review the current practices of two of their subvented (government subsidized) homes in three aspects of care, namely the prevention of falls, the use and reduction of physical restraints, and infection control, and; (2) to achieve standardization of the existing policies and practice guidelines of these two homes. **Methods:** This study adopts a mixed methods design that includes (i) non-participant field observations, (ii) questionnaire surveys (on staff knowledge, attitudes, and practices), (iii) individual and focus group interviews, and (iv) a document review. Fifty percent of all cases of those who had fallen, been restrained, or had any one of the four common nursing home infections, namely respiratory infections (pneumonia and influenza in particular), urinary tract infections, diarrheal illnesses, and skin and soft tissue infections (e.g., scabies), for the period January to December 2014 were randomly selected and recruited. Staff of different ranks were also recruited as informants. Data triangulation will be performed to integrate and interpret diverse data generated from multiple sources. **Results:** This study is ongoing and close to completion. Presently the project team has reached the data triangulation stage. At the Conference, we will present the final summary of the cases of those who had fallen, been restrained, or suffered from any one of the four commonly seen nursing home infection(s). Policy proposals, together with an implementation plan covering the areas of the occurrence of falls, and restraint and infection control practices will be proposed to the YYI. Recommendations on training and educating the staff to bring about changes in practice, as well as the maintenance of such practices, will form an integral part of our final report. Last, a monitoring mechanism for staff compliance and for evaluating the effects of the policy will be proposed. **Conclusion:** This study has two unique features. First, it adopts a multi-methods study design to determine the state of practice in the homes. Second, this study arises from a long history of collaboration between the CGN and the YYI. The joint venture represents a successful partnership between the two institutes, making the translation of evidence-based practice possible.

OC11- PERSONAL OUTCOMES. K. Barrie¹, E. Miller², B. Dewar¹ (1. *University of the West of Scotland, Lanarkshire, Scotland*; 2. *Emma Miller, PhD, CQSW, MA, Senior Research Fellow, University of Strathclyde, Scotland*)

Introduction: It is generally acknowledged that nursing homes will remain part of future public care provision in the UK, but with the proviso that continuation demands radical change, including greater 'personalisation'. Personalisation is a deeply contested concept and its increased emphasis within nursing homes requires careful examination. This paper reports on a study which employed a broad understanding of personalisation, seeking to explore the possibilities and challenges associated with implementing a focus on 'personal outcomes' (Cook and Miller 2012) in nursing homes in one Scottish locality. **Objectives:** To provide an overview of the unique underpinning philosophy of The My Home Life (MHL) programme which is based on appreciative inquiry, relationship centred care and caring conversations to implement evidence based practice themes. To illustrate how this approach has been used to explore the adoption of a focus on personal outcomes in nursing homes. **Discussion:** This action

research study was grounded in the My Home life ethos which aims to support people to enhance the quality of life of those living, dying, visiting and working in care homes (www.myhomelifescotland.org.uk). Ten senior carers from three private nursing homes participated in four facilitated peer learning sessions using an 'action learning' model. Consent to audio record, transcribe and report anonymised information was obtained. The authors conducted thematic analyses following each session, and results were reviewed and refined with participants. Our approach recognised the importance of the life stories and more embodied stories of persons with cognitive impairments. Using carefully observed examples from practice as stimuli, participants were supported to recognise and articulate the various ways they seek to understand what matters to a person, how they respond and how this might be developed further. The study highlighted the role of everyday acts of noticing alongside more formal care planning and review processes when working with the nursing home population, expanding understandings of 'caring conversations'. It established the potential for the successful negotiation of personal outcomes to counter daily ethical and practical dilemmas and initiated the rationalisation of recording practices, foregrounding information useful for maintaining resident identity, building relationships and informing future care rather than purely for accountability purposes. **Conclusions:** Focusing on personal outcomes supports the development of more responsive and respectful relationships and facilitates greater honesty about the complexity of so-called 'basic' care.

OC12- QUALITY OF COMMUNICATION BETWEEN PHYSICIANS AND RELATIVES OF DYING RESIDENTS ON END-OF LIFE CARE - CROSS-COUNTRY DIFFERENCES IN EU LONG- TERM CARE FACILITIES: PACE CROSS-SECTIONAL STUDY. I. Barańska¹, K. Szczerbińska¹, V. Kijowska¹, H. Finne-Soveri², G. Gambassi³, B. Onwuteaka-Philipsen⁴, S. Payne⁵, N. Van Den Noortgate^{6,7}, M. Vernooij-Dassen⁸, L. Deliens^{6,7}, L. Van den Block⁶ on behalf of the PACE group (1. *Jagiellonian University Medical College, Kraków, Poland*; 2. *National Institute for Health & Welfare, Helsinki, Finland*; 3. *University Cattolica del Sacro Cuoro, Rome, Italy*; 4. *EMGO, Expertise Center for Palliative Care, VU University, NL*; 5. *International Observatory on End-of-Life Care, Lancaster University, UK*; 6. *End-of-Life Care Research Group, Vrije University Brussel (VUB) & Ghent University, Belgium*; 7. *Ghent University Hospital, Belgium*; 8. *Radboud University Medical Center, Nijmegen, NL*)

Background: Good communication between physicians and dying patients and their relatives allows them to make informed decisions about healthcare, to prepare for the future, and to express and meet their preferences for end-of-life care. On the other hand, poor communication at the end of life can cause deep distress, both for the patient and their family resulting in a low level of satisfaction with quality of care at end-of-life. The PACE project ("Comparing the effectiveness of Palliative Care for Older people in long-term care facilities in Europe" funded from the EU 7th Frame Programme) was set up to assess quality of care of dying in long-term care facilities (LTCFs) residents across European countries: Belgium, Finland, Italy, Netherlands, Poland and United Kingdom. The aim of this analysis is to study the relationship between country, facility, physician, relative and resident characteristics associated with better quality of communication between physician and relatives of dying residents. **Methods:** PACE is a representative cross-sectional study of 1709 deceased residents in 322 LTCFs in six European countries. A questionnaire with validated measures for quality of communication between physicians and relatives of dying residents (Family Perception of Physician-Family Communication - FPPFC) was sent to 1448

relatives of residents deceased in last 3 months. The questionnaire also included items regarding socio-economic, educational and demographic characteristics of deceased residents and their relatives. FPPFC (Cronbach alpha=0.96) - a seven items scale - included questions about whether the relatives of deceased residents: were kept informed; received information about what to expect; understood what doctors were saying; discussed wishes for medical treatment; had the opportunity to ask questions; felt listened to, and felt understood. **Results:** Across all countries, 840 (58.0%) relatives responded. Country, facility, physician's, relative's and patient's characteristics related to better quality of communication were checked using a linear regression model. Status, type and size of facility and the number of physicians employed in LTCFs (facility characteristic); age, gender and work experience of physician (physician's characteristic); age, gender, marital status, education, employment, religion, relationship with resident, relative's engagement in care for deceased resident (relative's characteristic) and age, gender, education, financial situation, ethnicity and religion of deceased LTCF residents (patient characteristics) were also recorded. **Conclusions:** This study identifies the determinants of better quality of communication between physicians and relatives of deceased LTCF residents.

OC13- QUALITY OF LIFE IN NORWEGIAN NURSING HOMES. G. Haugan (*Norwegian University of Science and Technology, Center for Health Promotion Research, Trondheim, Norway*)

For many of those 80+, issues such as physical illness and approaching mortality decimate their ability to function and subsequently lead to the need for nursing home (NH) care. A number of different and simultaneous diagnoses followed by plagues characterizes older people residing in NHs. The NH population include older people having cancer as well as dementia, or both. In Norway, the symptom burden is high: 56% fatigue, 49% pain, 43% obstipation, 41% dyspnea, 38% sleep disturbance, 25% appetite loss, 18% nausea/vomiting, 30% depression, 12% anxiety were recently reported among cognitively intact NH patients aged 65-104 years. Quality of life (QoL) in NHs has been found to be decimated. Thus, knowledge about how to support and increase QoL in NH population is highly warranted.

OC14- THE EFFECT OF EXERCISE TRAINING VERSUS SOCIAL INTERVENTIONS ON THE FUNCTIONAL ABILITY OF NURSING HOME RESIDENTS WITH DEMENTIA: THE LEDEN CLUSTER-RANDOMIZED CONTROLLED TRIAL. P. de Souto Barreto^{1,2}, M. Cesari^{1,2}, P. Denormandie³, D. Armaingaud³, T. Rapp⁴, P. Chauvin⁴, B. Vellas^{1,2}, Y. Rolland^{1,2} (*1. Gérontopôle de Toulouse, Institut du Vieillissement, Centre Hospitalo-Universitaire de Toulouse (CHU Toulouse), Toulouse, France; 2. UMR INSERM 1027, University of Toulouse III, Toulouse, France; 3. Institut du Bien Vieillir Korian, Paris, France; 4. LIRAES (EA 4470) & Chaire AGEINOMIX, Université Paris Descartes - Sorbonne Paris Cité*)

Background: To investigate the effects of exercise, when compared to a structured non-physical intervention, on activities of daily living (ADL) performance and motor function in people with dementia (PWD) living in nursing homes (NH). **Methods:** PWD patients living in NHs participated in this cluster-randomised controlled trial (RCT). NHs (and their PWD) were randomised to either exercise group (EG; 4 NHs, n = 47 patients) or structured social activity control group (CG; 3 NHs, n = 50). Both 24-week interventions were performed twice/week, 60min/session. The main

outcome measure was ADL performance (ADCS-ADL-sev scale - scores varying from 0 to 54, higher is better); secondary outcomes were overall cognition (mini-mental state examination, MMSE), motors function (short physical performance battery, SPPB), and usual gait speed. **Results:** From the 97 patients, 91 had at least one post-baseline ADL assessment and were included in efficacy analysis. Groups differed at baseline on sex distribution, neuropsychiatric inventory (NPI) scores, and mini-nutritional status. Multilevel analysis adjusted for baseline differences between groups found no significant effects of interventions (group-by-time interaction) on any of ADCS-ADL-sev, MMSE, SPPB, and gait speed; between-group adjusted mean differences (none of them statistically significant) at 6-month (post-intervention) were 1.9, 0.55 (favouring CG), 0.6 points and 0.05m/sec (favouring EG) for ADCS-ADL-sev, SPPB, and gait speed, respectively. Adverse events did not differ between groups. **Conclusion:** Although we found no statistical differences in the effects of exercise versus social intervention on ADL performance, MMSE, SPPB and gait speed in PWD living in NHs, values for the between-group adjusted mean differences are probably clinically relevant (except for the MMSE). A larger and longer cluster-RCT is needed to definitively establish if exercise, compared to structured non-physical interventions, has no additional benefits for institutionalised PWD.

OC15- A STEPWISE DEVELOPMENT OF A MULTIDISCIPLINARY CLIENT-CENTRED APPROACH TO ENABLE MEANINGFUL ACTIVITIES IN DAILY LIVING AND QUALITY OF LIFE IN NURSING HOMES. P. De Vriendt^{1,2,4}, V. Desmet¹, R. Vanbosseghem³, L. Van Malderen², E. Gorus^{2,5}, D. Van de Velde^{1,4}, E. Cornelis^{1,2,5} (*1. Department of Occupational Therapy, Artevelde University College, Ghent, Belgium; 2. Gerontology Department, Vrije Universiteit Brussel, Belgium; 3. Department of Nursing, Artevelde University College, Ghent, Belgium; 4. Department of Rehabilitation Sciences and Physiotherapy, Occupational Therapy Program, Ghent University, Belgium; 5. University Hospital Brussel, Brussels, Belgium*)

Background and objectives: Engagement of Nursing Home residents (NHRs) in meaningful activities of daily living (MADL) enhances autonomy and Quality of Life. However, studies showed that this in reality was hardly the case. This project aimed to develop an approach to identify NHRs' needs for MADL and to enable the engagement in MADL. **Method:** The development of the approach was based on Campbell's (2008) 'framework for design and evaluation of complex interventions to improve health care' including (1) a qualitative study with 15 NHRs exploring their MADL needs and determining the components of a new MADL approach; (2) a survey with 240 NHRs; to investigate the current state; (3) a qualitative analysis of 21 'good practices'; (4) 6 focusgroups with different stakeholders (nurses, management, activity-coaches, occupational therapists; n=69) to identify their visions on MADL and to support the implementation of a new approach; (5) a systematic review on interventions to enrich MADL and finally (6) the development, testing and evaluation of a new approach in one living lab examining the feasibility, benefits for NHRs (n=24) and acceptability for the staff (n=14). **Results:** A client- and activity-oriented approach was developed, characterized by an active participatory attitude of NHRs and caregivers. Based on a systematic therapeutic process, four phases are distinguished, from an initial 'getting to know each other', over an all-encompassing evaluation of the wishes, desires, priorities, facilitating and inhibiting factors. After cataloguing the resources and strengths of the NHRs, a plan to enable NHRs' preferred MADL should be developed. Alongside a toolkit was developed. This

approach resulted in a significant improvement of the NHR's MADL and satisfaction, participation and social contacts. The approach seemed to be feasible for the staff. **Discussion and conclusion:** This promising empowering approach will be further examined in a RCT to evaluate its outcome and implementation potentials. It is clear that this approach has the potentials to guide NHs to develop a creative and innovative attitude towards NHRs MADL. Financial support by Artevelde University College is gratefully acknowledged.

OC16- ACTIVE AGEING IN THE NURSING HOME: ENHANCING RESIDENTS' QUALITY OF LIFE BY MEANS OF A MULTIDIMENSIONAL EMPOWERING APPROACH.

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Introduction: Active Ageing (AA) is an increasingly important concept in gerontology. AA aims to enhance quality of life (QoL) in old age by enabling older people to realise their full potential and by creating opportunities in health, protection and foremost participation. Also in nursing homes (NH), a comprehensive, multidimensional empowering approach to enhance residents' QoL is needed. Still, the AA concept remained unexplored in the field of the residential care. The main aim of the 3 presented studies was to develop an AA framework for the NH setting and to obtain an overview of the current AA status in NH (in research and in the field). **Methods and results:** First, a qualitative study on what AA could entail in the NH was conducted. A thematic analysis was performed on data from 4 semi-structured focus groups (residents; children of residents; community-dwelling older people; experts). A multidimensional AA framework was outlined, featured by nine AA determinants of which participation was put central in the framework. Secondly, a systematic review on interventions which intend to improve the QoL of residents was completed. The methodological quality of the 35 included studies was overall rather poor and more holistic interventions on QoL were missing. Finally, a 61-item questionnaire (the Nursing Home AA (NHAA) survey) to measure the realization of AA in NH was developed and administered to 383 residents in 57 NH in Flanders. Per item, two questions were asked to the residents, namely to what extent they saw this item as realised by their NH and how important they found that item. Also the relation with QoL, as measured by Anamnestic Comparative Self Assessment (ACSA), was explored. Overall, Flemish NH residents had a moderate positive AA experience (73%). Per determinant, the experience varied between 82% (culture) and 61% (social environment). Residents had on average a positive QoL ($\bar{x}=1.75$ ($SD=2.25$)). Multivariate hierarchical regression analyses revealed that residents' AA experience was a good predictor for QoL. The educational attainment of residents was, however, negatively correlated with nearly all AA determinants and residents' overall AA experience. **Conclusions:** With this presentation we want to underline that, although in research and policy AA is only limitedly associated with NH, this concept did appear relevant and of added value for this setting. An AA framework, with its different determinants, underlines the importance of moving away from a medical vision only focusing on care and moving towards an empowering multidisciplinary focus in NH to enhance residents' QoL, which should start with residents' wishes, their needs and competences and voices.

OC17- FROM BOOKSHELF TO BEDSIDE: HOW ACADEMIC NETWORKS FACILITATE THE IMPLEMENTATION OF RESEARCH FINDINGS IN NURSING HOME PRACTICE. L. Wattel (University Network of Organisations for Care for the Elderly, department of General Practice & Elderly Care Medicine / EMGO Institute for Health and Care Research, VU University Medical Center, Amsterdam, the Netherlands)

Backgrounds: Falling is a serious problem amongst nursing home residents suffering from dementia. Since 2015 the Dutch government assigns nursing homes to exert exercise programs for their residents, including 30 minutes of moderately intensive exercise for at least 5 days a week, the so-called "mobility standard". In this study we evaluated the feasibility and effect of this standard on fall frequency and endurance in nursing home residents with actual fall risk. **Methods:** The study comprises two parts: a multicentre observational study and a single centre RCT. In the observational study, a group-based exercise program was carried out in 15 nursing homes for a two-month period. Participants were "fallers" (≥ 1 falls in previous two months). Falls were counted and endurance was measured (using the 6 minute walking test (6MWT)) before and after the intervention period. In the RCT, the same exercise program was carried out on one ward, with a control ward receiving usual care. **Results:** 63 patients participated in the observational study. The amount of falls decreased from 67 per month prior to the intervention to 25 in the second month of the intervention and increased to 43 in the first month after the intervention. The median 6MWT score increased from 144 to 190 meters. The RCT is currently ongoing; results of the RCT will be available and presented prior to the meeting of the Nursing Home Research International Work Group in November 2016. **Conclusion:** The observational study suggests that a moderately intensive exercise program leads to a reduction of falls and increase of endurance in frequently falling nursing home residents. The RCT will provide further insight into this association.

OC18- ACHIEVING COST EFFECTIVE OUTCOMES BASED END OF LIFE. J. Kinley¹, J. Hockley² (1. Care Home Project Team, St Christophers Hospice, London, United Kingdom; 2. Primary Palliative Care Group, Centre for Population Health Sciences, University of Edinburgh, Edinburgh, United Kingdom)

Background: St Christopher's Hospice Care Home Project Team (CHPT) was established in 2008 after becoming a Regional Training Centre for the Gold Standards Framework in Care Homes Programme (GSFCH). Commissioners across five Clinical Commissioning Groups (CCGs) were looking to support cost effective interventions through measurable outcomes including reduced hospital admissions. At the same time St Christopher's Hospice was seeking funding to help care home staff implement the programme through external facilitation. A system based approach offered the opportunity to achieve both objectives. **Aims:** To establish a system that would fund facilitation in order to support and sustain the implementation of GSFCH programme. **Method:** In 2009, the CHPT set up a cluster randomised controlled trial (CRCT) to determine how best to facilitate the GSFCH. Commissioners were interested and funded facilitator support for care home staff in return for data on the impact of the programme. Across all five CCGs, care home staff submitted data following the death of a resident. **Results:** The percentage of residents dying in the nursing homes (NHs) increased from 57% (19 NHs) in 2008/09, to 79% (76 NHs) in 2014/15. Further data (2009-2014) revealed an increase: in advance care plans (from 51% to 82%); last days of life documentation (from 25% to 49%); and, DNACPR documentation (from 52% to 87%). **Meaning:** The CHPT has been

funded through the same commissioning process for 8 years. From the trial we now know that on-going individual, organisational and systems based learning is essential to maintain cultural change. The role has expanded to incorporate a sustainability initiative, a clinical role and new audits. **Conclusion:** Partnership working between practitioners, providers and commissioners offers a model to deliver cost effective appropriate outcome-based end-of-life care across systems. However, funding such initiatives in care homes is only worthwhile if a sustainability initiative is provided.

OC19- SHALL I STAY OR SHALL I GO? FACTORS CONTRIBUTING TO A PERMANENT NURSING HOME STAY. G. Arling, K. Abrahamson, Z. Hass, M. Noureldin, Y. Cai, P.A. Sudyanti (*School of Nursing, Purdue University, West Lafayette IN, USA*)

Background: Nursing facilities are increasingly the source of post-acute care in the US with over three-fourths of nursing facility admissions originating in acute hospitals. Only a minority of post-acute admissions become permanent residents, yet they account for the majority of nursing home days. In prior research we created a statistical profile to predict community discharge with variables such as desire to leave the facility, cognitive impairment, and functional dependency. Even at a given profile score, the longer an individual remained in the nursing facility the lower the probability of returning to the community. The purpose of this study is to understand dynamics leading to a permanent nursing facility stay. We focus on a nursing facility admission cohort that was still in the nursing facility at 60 days, a point at which most post-acute stays had ended and decisions were being made about community discharge; in top 40% on the profile score; and paying privately for their care and, thus, facing substantial future nursing home costs. This analysis is part of a larger AHRQ-funded study of the Minnesota Return to Community Initiative (RTCI), which facilitates community discharge for private paying nursing home residents who are at risk of becoming permanent stays and converting to Medicaid. **Methods:** The sample was 5,593 private paying residents: admitted to 370 Minnesota nursing facilities from April 1, 2014 to May 31, 2015; in the top 40% on the community discharge profile; and, remaining in the nursing facility for at least 60 days. Measures of health, functional status, and preference for community discharge came from the nursing home minimum data set (MDS). The RTCI staff recorded reasons for remaining in the facility at 90 days after admission. **Results:** At 120 days after admission, 41% of the study cohort had transitioned to the community and 45% remained in the facility. Small percentages died (7%) or were transferred to another facility (2%). At one year 24% still remained in the facility. Why did residents remain in the nursing facility? Care resources did not seem to be the deciding factor. Absence of an informal caregiver (4%), resistance from family (7%), unavailable community services (1%) or housing options (2%), and financial concerns (0.3%) were mentioned infrequently as barriers to community discharge. The main barriers to remaining in the nursing facility were perceptions about health and safety. Residents and families most often mentioned “access to health care” (42%) and “safety” (42%). Need for “24 hour” care was mentioned most by facility staff (40%) and medical providers (72%). Despite these perceptions, the health and functioning, e.g., ADLs, cognitive status, and continence, for most residents remained constant or improved. Even when controlling for location, case-mix, and community services, facilities displayed wide variation in community discharge rates. **Conclusions:** Reasons for becoming a permanent nursing home resident go beyond resident’s objective health status or availability of caregivers or community resources. Major factors appear to be

perceptions of residents, families, and professionals, which can be shaped by facility culture, the nursing home socialization process, and family dynamics.

OC20- THE PREVALENCE OF COGNITIVE IMPAIRMENT AMONG THE LTCF RESIDENTS—A COMPARISON OF TWO TYPES OF LTCF IN POLAND. V. Kijowska¹, M. Wilga¹, K. Szczerbińska (*Jagiellonian University Medical College, the Chair of Epidemiology and Preventive Medicine, Department of Sociology of Medicine, Krakow, Poland*)

Background: Process of aging of the societies observed in most countries in the world underlies an increasing prevalence of dementia in later life. Although dementia has become one of the biggest challenge for long-term care facilities (LTCFs), the large scale nationwide comparative studies in particular for older adults with dementia in LTCFs, hardly exist in Poland. The aim of the study was to compare the characteristics of LTCF residents with a focus on a presence of cognitive impairment suggesting a possibility of dementia and to assess on how dementia issues are addressed in different types of LTCFs in Poland. The study embraced two types of LTCFs providing various level of care: skilled nursing facility (ZOL) vs. non-skilled one (DPS). **Methods:** A cross-sectional survey of a country representative sample of 23 LTCFs providing care for older and chronically ill persons across Poland, in 2015, randomized in terms of LTCF type, geographical region, bed capacity and ownership status. A study sample comprised of 1,589 residents. Data was collected by trained nurses based on their 3-days observation of residents during everyday care routines, information obtained from other staff and from medical records. First, characteristics of residents and a presence of cognitive impairment suggesting a possibility of dementia were examined among all the LTCF residents using a CPS scale. Next, the interRAI-LTC tool, which is a validated and widely used instrument enabling comprehensive assessment in long-term care sector, was applied to assess range of care in the randomly selected group of 461 from 1,128 residents with dementia (CPS \geq 2). The descriptive analysis was conducted using Chi square method. Differences were considered statistically significant if p value was less than 0.05. **Results:** The median age of the LTCF residents was 80 years and 67,7% were women. Overall, 71,1% residents (n=1,128) of the studied sample were determined to have cognitive impairment according to CPS scale (CPS \geq 2), ranging from 63,8% in DPS to 82,3% in ZOL. Prevalence of severe cognitive impairment in residents was substantially higher in ZOL than DPS (54,6% vs. 28,3% - severe impairment). ZOL residents with cognitive impairment (CPS \geq 2) more often than residents in DPS had bladder incontinence (86,4% vs. 65,2%), bowel incontinence (84,5% vs. 58,6%), pressure ulcers (16,2% vs. 4,2%), gait dysfunction (57,7% vs. 34,9%), dysphagia (19,8% vs. 10%) and dehydration (6,1% vs. 1,2%). No statistically significant difference among residents with CPS \geq 2 was found in gender, prevalence of recent falls, diabetes, psychological disorders, depression, stroke, COPD and cancers. **Conclusions:** Life span extension observed in most countries in the world results in increase of the number of people in old age, accelerating the growth of the number of individuals suffering from dementia. Our study showed that there is a high prevalence of cognitive impairment in LTCFs in Poland, particularly among ZOL residents. Moreover, it is often accompanied with much worse functional status and higher prevalence of geriatric syndromes in ZOL residents. It is possible, that cognitive impairment is under-reported in the medical records in DPS with lower accessibility of physicians.

OC21- A REALIST SYNTHESIS OF EVIDENCE OF MANAGING FAECAL INCONTINENCE IN IN OLDER PEOPLE WITH ADVANCED DEMENTIA IN CARE HOMES.

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Background: In UK care homes it is estimated around 80% of residents have dementia or memory problems. Faecal incontinence (FI) is also more prevalent in older people in care homes compared to those living at home. Toileting assistance and use of incontinence pads are the most widely used management approach for older people who are incontinent in care homes. Particular challenges for staff and residents include maintaining comfort and dignity, skin health and disguising odour. **Methods:** To investigate the management of FI for older people with dementia living in care homes, identifying what works, for whom and in which circumstances. Realist synthesis using a theory driven approach to evidence review was undertaken. Key stakeholders (resident representatives, care workers, clinicians, care home managers and providers) were interviewed and 62 documents (research, policy, guidelines, education materials) on continence care were reviewed. Six possible programme theories or explanations were identified likely to improve FI management in care homes. These theories guided further searches and identification of literature, data extraction and analysis for different configurations of context, mechanisms and outcomes within the evidence to explanation what works, when and under which circumstances. **Results:** 1500 potential papers were located from initial searches, 27 were included and six possible approaches for managing FI for people with dementia were identified, informed by bio-medical, psychosocial and systems based theories of what supports effective care. Follow on iterative searches identified 35 further papers. There was little evidence of how dementia affects an older person's ability to benefit from different approaches to continence care. **Conclusion:** Interventions with potential to improve outcomes include aligning education and training with personal care routines, dementia specific skills for continence care and valuing unqualified staff expertise. Important contextual factors are organisational and clinical knowledge about FI and dementia. To achieve good resident outcomes care staff need authority to act on their knowledge and training, and interventions need to fit into workflow systems, processes and setting.

OC22- SEXUAL ABUSE OF OLDER NURSING HOME RESIDENTS- RESULTS FROM A NORWEGIAN PILOT STUDY.

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Background: Sexual abuse is said to be the most hidden form of elder abuse, and the least acknowledged and reported type. Nursing homes are not free from sexual abuse, and both staff, relatives and residents have been identified as perpetrators. Despite an increasing

literature related to elder abuse, sexual abuse of older persons in general and in nursing homes in particular is still sparsely described. The purpose of this study was to illuminate and increase knowledge of sexual abuse of older persons in nursing homes. **Methods:** In this pilot study we chose different approaches for collecting data, both qualitative and quantitative. First, we conducted a systematic literature review of published studies specifically on sexual abuse in nursing homes. Furthermore, this was complemented by two empirical studies; one focus group interview with nursing home staff (n=7) and one survey among nursing home staff in two nursing homes (n=64). **Results:** Only six studies from USA met our inclusion criteria, and the literature review shows that sexual abuse occur in nursing homes, and that both men and women are victims. The perpetrator is usually an employee or another nursing home resident, and usually men, but one must be aware that women can abuse older men and women. Nursing homes often show inability to handle abuse cases and are calling for more knowledge among healthcare professionals allowing sexual abuse cases to be handled appropriately. The topic raised strong reactions among the nurses in the focus group. Anger, sadness, disgusting, mentally unwell and nausea were emotions that were triggered when they discussed this. Sexual abuse of older persons is still a taboo topic among health professionals. However, all agreed that they would have notified a sexual abuse, but it was uncertainty concerning whom or where they should report this. The survey revealed that 20 respondents reported knowledge of the occurrence of sexual abuse, and in addition 15 respondents were not certain whether the incidents they had observed was a sexual abuse or not. The largest group of abusers were co-residents, secondly relatives and fewest staff. When comes to knowledge about handling such cases, more than half of the respondents answered that they did not know what to do if a nursing home resident were subjected to sexual abuse. **Conclusions:** This pilot study shows that sexual abuse of older persons in nursing homes occurs, also in Norway. The staff are unsure how they should report such cases and nursing homes often show inadequate handling of abuse cases. Sexual abuse of older persons is still a taboo topic among health professionals. The fact that staff are not aware that it could happen, or find it hard to believe that it could have happened, can enhance the older persons' vulnerable position as potential victims of abuse. The findings show that there is a need for more knowledge and further research on sexual abuse against older persons in nursing homes.

OC23- PAIN ASSESSMENT IN PEOPLE WITH SEVERE COGNITIVE IMPAIRMENTS AND THE USE OF INSTRUMENTS IN GERMAN NURSING HOMES – RESULTS FROM THE CROSS-SECTIONAL STUDY “DEMENZMONITOR”.

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Backgrounds: A high prevalence of nursing home residents with dementia suffer from chronic pain, which is also discussed as a reason for challenging behavior. For the assessment of pain in people with severe cognitive impairments (CI), it is recommended in national guidelines to use an observational pain-instrument; for people without or mild CI a self-rating instrument is the gold-standard. Hence, usually both sorts of instruments should be used in nursing homes and nurses have to decide which instrument they use to assess a resident. It is not known, if in German nursing homes the pain assessment for residents with severe CI is really conducted with the help of observational instruments or if also self-rating instruments are used. Because of

the different resident structure we assume that in Dementia Special Care Units (DSCU)s observational pain instruments should be used more often than in traditional care units (TCU)s. **Objectives:** To find out if observational pain assessment instruments are used more often in DSCUs to assess pain in residents with severe CIs than in TCUs. **Methods:** In 2013, we conducted an observational study and collected among others resident data on the cognitive status and the instrument that was used for pain assessment. For assessing the cognitive status, the Dementia Screening Scale (Köhler et al. 2007) was used; the score was categorized into no, mild and severe CI. For assessing the used pain instrument the DemCare-Q was used (Palm et al. 2014); the instruments were coded into self-rating and observational instruments. The resident data were aggregated on care unit level and percentages were used for further analysis. Care units were only included if more than ten resident data sets were available. Between DSCUs and TCUs the mean of the percentage of residents with severe CI that were assessed with an observational instrument were compared using an independent t-test. To adjust for cluster effects, a binary mixed model was calculated. **Results:** In the analysis sample, data from n=1397 participants living in n=75 care units were included (n=30 DSCUs and n=45 TCUs). In the mean, in DSCUs 82% of their residents with severe CI were assessed with an observational instrument. In TCUs, only 42% of severe CI residents were assessed with an observational instrument. In the mean, the TCUs assessed 51% of their severe cognitively impaired residents with a self-rating instrument. In DSCUs, this was the case in less than 10% of the severe cognitively impaired residents. The differences were statistically significant; the mixed model also verified this result. **Conclusions:** The use of observational instruments to assess pain in severe cognitively impaired residents is not the standard in German nursing homes, although corresponding recommendations are available. However, in DSCUs the use seems more popular than in TCUs. There is an urgent need to improve the knowledge about pain assessment in severe cognitively impaired residents in nursing homes to enhance the choice of the most suitable instrument.

OC24- GERIATRIC SYNDROMES IN THE XARESS NETWORK OF INTERMEDIATE AND LONG TERM CARE UNITS IN CATALONIA.

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Introduction: XARESS Is a network of intermediate and long term care units pertaining to the public Social and Health care network (Plà Director Sociosanitari, PDSS) that depends on both the health and welfare authorities, to assist older people and patients with chronic diseases. PDSS centres has an information system (Conjunt Mínim Bàsic de Dades dels Recursos Sociosanitaris, CMBD-RSS) where administrative and medical data is routinely registered on all individuals admitted. **Objectives:** We've explored the prevalence of geriatric syndromes (GS) at admission in intermediate and long term care units, from CMBD/RSS register data routinely collected for all

admissions in 2014. We've also related GS to Resource Utilization Groups (RUG) category, physical function, mean length of stay and destination at discharge. The GS that were able to be explored through CMBD/RSS data are dementia, depression, immobilisation, urinary and faecal incontinence, insomnia, instability, acute confusional syndrome, pressure ulcers, terminal illness. **Discussion:** Geriatric syndromes are highly prevalent in both types of units. The most prevalent syndromes in both types of units were urinary incontinence and dementia, while the least frequent were malnutrition, acute confusional syndrome, and terminal illness. We included 1.278 patients in long term care units a. They have a median of 3 geriatric syndromes, although in all units there are individuals with no syndrome, and individuals with up to 5. A higher number of concurrent GS is related to a worse functional status, and higher likelihood to die during hospitalization or to be discharged to a residential home. Increased mortality may explain why a higher number of syndromes is not related to a longer length of stay. We included 5.400 patients in intermediate care units. They have a median of 2 geriatric syndromes, but in all units there are individuals with no syndrome, and individuals with up to 5. The number of geriatric syndromes at admission is positively correlated with a worse functional status assessed with the RUG-s ADL score, and are more likely to die during hospitalization, or to be discharged to a residential home. This may explain why a higher number of syndromes is not related to a longer length of stay. **Conclusions:** A network of centers permit to access to high numbers of patients to promote research in intermediate and long term care. Analysis of routinely collected data provides clinical insight into user's profiles, and it's a tool for clinical research. Individuals admitted to intermediate and long term care facilities in Catalonia are heterogeneous and present a mix of profiles.

OC25- PREDICTING DISCHARGE TO CARE HOME FROM THE ACUTE HOSPITAL SETTING: A SYSTEMATIC REVIEW.

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Background: Moving into a care home is a significant life event. Although the predictors of this transition for those living in the community and those with dementia have been described in the literature, predictors from the acute hospital setting are not reported. Our aim was to establish predictive factors for care home discharge following unscheduled admission to the acute hospital setting. **Methods:** The review was performed in accordance with our pre-specified protocol, registered on PROSPERO. The following databases were searched on the 28th of September 2015: Ovid MEDLINE; Ovid EMBASE and EBSCOhost CINAHL Plus. Observational studies evaluating care home discharge following unscheduled hospital admission which reported numerical data on predictive factors were eligible for inclusion. There were no limits in terms of date or language. Data were extracted on study demographics and predictor variables. Quality assessment was performed using a modified version of the Risk of Bias Assessment Tool for Non-Randomised Studies (Kim 2013). **Results:** From an initial return of 9,176 records, 39 studies were identified for inclusion. Our risk of bias assessment identified concerns about the selection of participants in the majority of studies. The included studies were heterogeneous in size and scope with sample sizes ranging from 82 – 948,880 participants

and observation from two months to ten years. The proportion of participants discharged to a care home ranged from 3-77%. The terminology used to identify care home settings was varied lacked definitions. Studies varied in the predictors they reported, many failing to consider common confounding variables. Only one study evaluated the role of patient and family preferences in determining the need for care home admission. **Conclusions:** Studies of predictors of care home admission from acute hospitals are heterogeneous, many report only a small number of predictors and have a high risk of selection bias. Terminology used to identify care home settings requires standardisation to allow for international comparisons and shared learning. Kim SY, Park JE, Lee YJ, Seo HJ, Sheen SS, Hahn S, Jang BH, Son HJ. Testing a tool for assessing the risk of bias in nonrandomized studies shows moderate reliability and promising validity. *J Clin Epidemiol.* 2013;66(4):408-14.

POSTERS

P1- TO INVESTIGATE WHETHER IT IS POSSIBLE TO DETERMINE SIGNS OF IMMINENT DYING AND CHANGE IN PAIN AND SYMPTOM INTENSITY DURING PHARMACOLOGICAL TREATMENT IN NURSING HOME PATIENTS, FROM DAY PERCEIVED AS DYING AND TO DAY OF DEATH. R. Sandvik (*Bergen, Norway*)

Objective: To investigate whether it is possible to determine signs of imminent dying and change in pain and symptom intensity during pharmacological treatment in nursing home patients, from day perceived as dying and to day of death. **Design:** Prospective, longitudinal trajectory trial. **Setting:** 47 nursing homes within 35 municipalities of Norway. **Participants:** 691 nursing home patients were followed during the first year after admission and 152 were assessed carefully in their last days of life. **Measurements:** Time between admission and day of death, and symptom severity by Edmonton symptom assessment system (ESAS), pain (mobilization-observation-behaviour-intensity-dementia-2), level of dementia (clinical dementia rating scale), physical function (Karnofsky performance scale), and activities of daily living (physical self-maintenance scale). **Results:** Twenty-five percent died during the first year after admission. Increased fatigue (logistic regression, OR 1.8, $P=0.009$) and poor appetite (OR 1.2, $P=0.005$) were significantly associated with being able to identify the day a person was imminent dying. At that day, the administration of opioids, midazolam, and anticholinergics increased significantly ($P<0.001$), and was associated with amelioration of symptoms such as pain (mixed-models linear regression, 60% vs. 46%, $P<0.001$), anxiety (44% vs. 31%, $P<0.001$), and depression (33% vs. 15%, $P<0.001$). However, most symptoms were still prevalent at day of death, and moderate to severe dyspnea and death rattle increased from 44% to 53% ($P=0.040$) and 8% to 19% ($P<0.001$), respectively. Respiratory symptoms were not associated with opioids or anticholinergics. **Conclusion:** Pharmacological treatment ameliorated distressing symptoms in dying nursing home patients. However, most symptoms, including pain and dyspnea, were still common at day of death. Results emphasize critical needs for better implementation of guidelines and staff education.

P2- DELIRIUM IS A COMMON SYNDROME IN NURSING HOMES, R.H. Koop-Kalvenhaa (*University Enschede, the Netherlands*)

Rationale: Delirium is a common syndrome in nursing homes. Percentages of undetected delirium in nursing homes varies from

49-87% (Inouye et.al., 2001). Over the years many delirium instruments have been designed to screen, diagnose and assess the severity of delirium. A new screening instrument for delirium (RADAR) was developed in Canada, Quebec in 2015. The developers state that it takes less time to screen for delirium with this instrument, it takes less administration, it's part of the daily routine work and it is a continue observation instrument so the detection rate of delirium should be higher. **Objective:** Translate, implement, partially validate and evaluate instrument RADAR and give recommendations (create insight) for the use of the screening instrument and further research in the Netherlands. Study design: Prospective cohort pilot study, experimental design, mixed methods, content analysis of observations and questionnaires. Study population: Patients ≥ 65 years who were admitted on a geriatric revalidation ward in a nursing home. For this pilot 14 patients were included. Nursing staff on this ward were observed by principal investigator and instructed, trained and asked about their experience with the RADAR instrument. Intervention: The RADAR was administered by trained nurses three till four times a day to screen for delirium. A total of 145 screenings. The RADAR was administered by two independent nurses at the same time, after the two RADAR assessments, there was an assessment for delirium (standard care) by an independent physician with the CAM instrument three till four times a day. During the training and the pilot the investigator took field notes, after use of the instrument nurses were asked to complete a questionnaire. **Results:** There were 14 patients included in this study. Kappa was 0,081 with a significance of $P 0,286$. Specificity was between 92,7% and 96,7%. The sample was small but give insight in sensitivity of the instrument. Study showed that training in research was necessary for the nurses and/or nurse assistants. The nurses did not experience an extra burden in workload using the RADAR. Observations and field notes showed there was a lack of knowledge and attitude about research and research environment. **Recommendations/discussion:** Accurate cross cultural validity has been established in this study. Further full scale research is feasible and is required to give more reliable results about external validity and sensitivity of the instrument RADAR used in the elderly population. The study conducted gives valuable insight in the experience of nurses with this instrument and experience with nursing home research.

P3- ACHIEVING SYMPTOM CONTROL NOT MEDICATION BURDEN AT THE END OF LIFE. J. Hockley (*University of Edinburgh, Scotland*)

Background: The population living in care homes in the UK is old, frail and has multi-morbidities. A consequence of living with multi-morbidities means that residents in care homes are prescribed multiple oral medications. Reviewing these throughout their admission is important. **Aim:** To identify the prescribing practice for symptom control in the last month of life for residents dying in nursing homes. **Method:** Thirty eight nursing homes implementing an end of life programme took part in a trial. In order to complete this programme the care home staff needed to evidence symptom control at the end of life. The data presented is from all items prescribed in the last month of life from all deceased residents notes during the 2nd year of the GSFCH programme. **Results:** During the data collection period 827 residents died. In the last month of life the mean number of oral medication residents had been prescribed was 10 (range 0-27). The resident's who died had been prescribed oral medication for symptom control in their last month of life. For example 60% of residents had been prescribed oral analgesia and 10% an antiepileptic. In relation to recognising dying only 33% residents had anticipatory PRN injectable medication prescribed. Of the 13.5% prescribed medication for a syringe driver 3.5% required this for more than three days. Whilst 54%

of residents were prescribed antibiotics in this time period 34% still had them prescribed on the day of death. **Meaning:** Symptom control at the end of life should incorporate a medication review. This was not the case for all residents within this study. It will only be achieved through care home staff and GPs working together. This should result in greater recognition of dying and the proactive planning of end of life care which must incorporate a medication review and anticipatory prescribing. **Conclusion:** This study has highlighted medication burden in nursing homes and inconsistent prescribing for symptom control at the end of life care.

P4- INTIMATIONS OF DYING – THE VISIBLE AND INVISIBLE PROCESS (ORAL PRESENTATION). J. Hockley (1. Primary Palliative Care Research, Centre for Population Health Sciences, University of Edinburgh, Scotland)

Introduction: An increasing number of frail older people live and die in nursing care homes (NHs), but there is often an emphasis on reablement and rehabilitation, which means that sometimes staff do not understand the process of dying. In the UK, 20% of the population die in care homes. Some education and training in end of life care is being given to staff in care homes but it is often given by staff from specialist palliative care. There is a danger however that the model developed for cancer becomes the norm for all diseases, rather than developing an understanding of the dying process specific for frail older people with/without dementia at the end of their lives. **Objectives:** This presentation will explore both physical process of dying in frail older people as well as what might be being experienced by the dying person themselves. A framework (Hampe 1979) will be used to explore the latter. **Discussion:** The 'visible' process of dying will be discussed in relation to the following three phases: recognising dying (week/s to live), peripheral shutdown (day/s to live), and imminent dying (hour/s to live). A lack of understanding of the third phase means that relatives are not present with their family member when they die. An observation will be made of the passivity associated with dying – and that dying happens to a person. However, we often use an active verb such as 'they are going'. How much is the dying person in charge of the process? Specific case studies of frail older people, including people with dementia, will be used to discuss Hampe's framework of 'exiting of self', 'account rendered by self' and 'the expansion of self' in dying. **Conclusion:** With the medicalisation of dying and society's taboo of death, the intuitiveness that human beings had of their dying during medieval times when they appeared to be in charge of their dying is in danger of being lost. For anyone who has eyes to see and ears to listen to their residents who are dying, this can bring greater poignancy to living.

P5- CAN POST-ACUTE RESIDENTS BE THE CEO OF THEIR CARE? IMPLEMENTATION OF A PERSON-CENTERED MEDICAL CARE MODEL WITHIN A SKILLED NURSING FACILITY. K. Abrahamson¹, J. Myers¹, B. Bernard², A. Nazir³ (1. Purdue University School of Nursing, West Lafayette, Indiana, USA; 2. Indiana University Center for Aging Research, Indianapolis, Indiana, USA; 3. Signature HealthCare, Louisville, Kentucky, USA)

Background: Every fifth older patient discharged from a United States hospital requires a post-acute, rehabilitative stay in a skilled nursing facility (SNF), and the volume of such patients is expected to increase. These residents have complex health care needs, and the quality of care in SNFs is often below par. A model of person-centered medical care was implemented in a United States SNF to determine the feasibility and impact of a bedside, team-based model of post-acute care that emphasized resident/ family defined goals

of care. The model intervention included: 1. Bi-weekly bedside interdisciplinary care-team (Physician, Therapists, Social Worker, Nurse, Nurse Aide, Dietary) meetings scheduled at a time selected by the resident/family. 2. Resident selected health-related goals that guided team discussions. 3. Use of first-person and lay terminology to facilitate better resident understanding of their health issues. 4. Documentation and team accountability for resident preferences (dining, schedule, environment, etc.). 5. Monthly care-team meetings to exchange feedback regarding their performance. **Methods:** The intervention facility was for-profit and had Federal quality rating score of 4 stars. Forty post-acute residents were included in this study. Average subject age was 74.3 +/- 12.7. Subjects were 75% female, 57% African American, and half had an identified family caregiver. The most common admission diagnoses were Diabetes (50%) and Chronic Renal Disease (38%), and Congestive Heart Failure (35%). Each resident was functionally impaired in at least one ADL domain, and most had no or little cognitive impairment. Subject inclusion criteria for this project were: 1) above 40 years of age, 2) admitted for rehabilitation with a plan for community discharge, and 3) able to consent to participation as indicated by the selected screening tool. Semi-structured interviews were completed with 4 staff members, 6 residents, and 2 family caregivers. Evaluation data included admission and discharge Patient Activation Measure (PAM) and Caregiver Preparedness surveys; admission and bi-weekly modified Castle Satisfaction Surveys; admission and discharge Patient and Caregiver Engagement surveys; and semi-structured interviews with a sample of participants. **Results:** Almost half of residents (44%) identified a key knowledge gap surrounding understanding their medications. However, most residents (88%) felt they were the person most responsible for their own health. Caregivers were the least confident in the area of emotional needs and most confident in their ability to handle an emergency. Scores increased over resident stay (admission to discharge) in every domain of the modified Castle Satisfaction Survey. During interview staff members described initial skepticism about having the time and resources to implement the model. However, all indicated a high level of satisfaction with the model and person-centered care once implemented. Resident and family member interviews indicated a feeling of being listened to, heard, and valued. **Conclusions:** It is feasible to implement a post-acute model that is person-centered, despite time and resource constraints. Person-centered care appeared to positively impact satisfaction, confidence in self-care, and caregiving. Further research is needed to link the resident experience with clinical outcomes such as length of stay, hospitalizations, and health status.

P6- MY LIFE STORY. E. Borizovski, M. Sambuchi, A. Dechassey Parzy, C. Farjon, J. Dodard (Nursing Home Frédéric Mistral, Vaison La Romaine, France)

Introduction: «My Life Story» is a concept which involves making a book of one's life, which allows seniors in nursing homes to reappropriate and revisit their history and memories. This booklet contains the life course of each resident and has for the purpose a long-term study of behavioral and moods disorders, in the practical application of non-drug treatments. **Methods :** Each book is created during a weekly session. The resident himself or one of his relatives, (if the resident presents demential disabilities or psychiatric disorders), evoke his life based on specific events illustrated by personal photos that he has preselected. This booklet is established two months after arrival in nursing home while residents get their benchmarks. This study analyses three groups of residents: -»Placebo», -»Demented» -»Psychiatric»; Under three different conditions: -With booklet and an hour a week personal accompaniment, -With booklet and without

accompaniment, -Without booklet and without accompaniment.

Results : The qualitative results, verbalized or observed data, will allow working on the resident's representations and interpretations on some aspects of their lives, but also how they lived them. The quantitative results, which study the decrease in medical prescriptions, as well as mood and behavioral disorders will demonstrate the positive effect or not of this booklet. **Conclusions :** Improvements will be made in multidisciplinary group such as recording interviews by video to investigate objectively the exchange time and the different expressions between the resident and his family or nursing team .

P7- NURSING HOME RESIDENTS' EXPERIENCES OF LIVING TOGETHER AND SHARING DAILY LIVES WITH COGNITIVELY IMPAIRED FELLOW RESIDENTS – RESULTS FROM A QUALITATIVE STUDY. K. Schneider¹, E. Hotze², R. Palm^{3,4} (1. Ihr Pflegepartner, Mittweida, Germany; 2. Hochschule Osnabrück, University of Applied Sciences, Osnabrück, Germany; 3. German Centre for Neurodegenerative Diseases, Witten, Germany; 4. Witten/Herdecke University (UW/H), Faculty of Health, School of Nursing Science, Witten, Germany)

Background: In the majority of German nursing homes residents with and without cognitive impairments live together in so-called integrated care units. Because of the growing population of people with dementia, the prevalence of cognitively impaired residents is meanwhile estimated with more than 50%. Today, there is a focus on developing dementia-oriented care models to improve quality of care and better fulfill the special needs of this clientele. The question of separation or integration of cognitively impaired residents is elementary in those discussions. The perspective of lucid residents on cohabitation with cognitively impaired peers may not be forgotten in this regard; especially because previous research points to many problems that lead to feelings of anxiety, irritation, resignation and social isolation of residents without cognitive impairments (Oh 2006, Ragneskog 2001). The aim of this study is to explore the experiences of residents without cognitive impairments of living together and sharing daily lives with cognitively impaired fellow residents in one German nursing home. **Methods:** In a qualitative study we followed the principles of Grounded Theory to generate knowledge on the lived experience, its meaning and dealing with lived situations (Corbin & Strauss, 1996). For this purpose seven in-depth interviews with cognitively unimpaired residents were conducted. For the interviews a guide was used that intended to stimulate narrations. The transcribed interviews were analysed following the steps of open and axial coding. All interviews were conducted in the rooms of the participants and lasted between 7 and 34 minutes. To enhance validity, the researcher continuously recorded their individual assumptions to consider them during analysing. **Results:** The participants were aged between 75 and 93 years and lived between 1 and 7 years in the nursing home; 6 of 7 were women. The participants experienced a wide range of different challenging behaviours: verbal and non-verbal aggression, wandering, disinhibition, restlessness, apathy, depression. They also observed typical dementia symptoms like the deterioration of functions and severe orientation problems. Communication was described as extremely challenging and useless because they were not able to understand each other and the fellow residents forget everything anyway. Daily activities like recreation or having meals were reported to be dominated and disturbed by the cognitively impaired residents. The experienced situations provoked feelings of anxiety, sadness, compassion but also disgust. The lucid residents reacted by avoiding the contact with cognitively impaired peers and ignoring them. They preferred to stay in their rooms which they sometimes needed to lock up to protect their privacy. **Conclusion:** Cohabitation with cognitively

impaired peers is straining lucid residents massively and may provoke their social isolation. If an integrated living concept is implemented, strategies have to be applied that improve their understanding for their peer residents' behaviour and support them in developing coping strategies other than avoidance.

P8- DEMENTIA KNOWLEDGE MONITOR – ITS DEVELOPMENT AND VALIDATION. A. Persoon, D. Gerritsen (*Radboud University Nijmegen Medical Centre, Dept. of Primary and Community Care, Nijmegen, the Netherlands*)

Introduction: The number of people with dementia is increasing in our aging society and so is the need to be cared for. Nursing staff in home care and nursing home care often care for people (not yet) diagnosed with dementia. Shanahan et al (2013) developed a test for unqualified care staff which is keeping pace with the expanding field of dementia and which incorporates biopsychosocial and person centered models of care. Our aim was to develop a measure that gives insight into the knowledge of nursing care staff on three themes: a) The person with dementia, b) caring for someone with dementia and c) the living conditions. Because the living conditions but also the severity of dementia usually differs in home care and nursing home care, we aimed for two measures: one for each setting. **Methods:** To develop and validate the nursing home care measure, we first organized an expert panel of psychologists. Then, this measure was adjusted to the home care setting and looked at by an expert panel of geriatric nurses and psychologists in three Delphi rounds. Internal consistency, construct validity, and bottom and floor effect were established by means of a pilot (n=114) and intra rater agreement was conducted after two weeks (n=40). Finally, items were adjusted or deleted if necessary. **Results:** Two measures were developed, each consists of three scales and each scale contains three subscales (respectively 59 and 57 items). Cronbach's alpha's were between 0.42 and 0.74. Items with a test retest kappa's < 0.4 were deleted (2x) or adjusted (17x), depending on the number of percentages good answers. Pearson's correlation with Dementia Knowledge Test was 0.543 (p=0.000). **Conclusions:** Two Dementia Knowledge Monitors are developed and validated successfully for two different settings (home care and nursing home care). We adjusted some items guided by the validation results. Therefore, it is important to establish the validity again in the future.

P9- MEMANTINE FOR NURSING HOME RESIDENTS WITH FIBROMYALGIA SYNDROME AND ALZHEIMER'S DISEASE. L.D. Hughes (*Senior House Officer, Community Geriatrics NHS Tayside, Scotland*)

Backgrounds: Fibromyalgia syndrome (FMS) is a condition of central sensitisation with a clear age relationship, with the prevalence peaking in 50-70 year olds. Despite currently available pharmacological and non-pharmacological approaches, this condition remains a challenge to manage. There has been recent research suggesting that memantine, a N-Methyl-D-aspartate antagonist, may have a beneficial role in treating chronic pain in FMs patients. This study wished to assess whether patients with Alzheimer's disease (AD) and FMS prescribed memantine have improved pain control to those patients not receiving memantine. **Method:** Patients with a diagnosis of AD and FMS were identified from one GP practice list in Arbroath, Scotland. Information was collected about age, comorbid conditions, and prescribed medications. Cognition was quantified using the 6-CIT and MMSE and pain was assessed using the PAIN-AD with these were carried out on a fortnightly basis for four months. **Results:** Six patients with AD and FMS were identified,

all were nursing home residents. None of the patients had any other conditions that would cause chronic pain. Three patients were prescribed memantine for moderate to severe Alzheimer's disease and three patients were prescribed donepezil. Baseline cognition was similar between groups, with lower pain scores for patients receiving memantine. Both memantine and donepezil were well tolerated. **Conclusion:** This small research project, albeit with caveats, extends the findings to date that memantine can improve pain in FMS patients even for nursing home residents with a diagnosis of AD. This will provide the basis for future research.

P10- HUMAN RESOURCES MANAGEMENT IN FRENCH NURSING HOMES: ECONOMIC CHOICES DETERMINED BY DIRECTORS' PROFESSIONAL PROFILE. R. Sibille, M.-E. Joël (*German Center for Neurodegenerative Diseases (DZNE), Site Witte Department of Health Economics and Organization (LEDa-LEGOS), Université Paris-Dauphine, PSL Research University, Paris, France*)

Backgrounds: In France, more than 75% of the establishments specialized in the care for dependent elderly people are EHPADs (Establishments with housing for dependent and elderly people). The EHPADs were created in the early 2000s with the aim to improve the Nursing Homes efficiency. However, the studies conducted in France, as in many countries, indicate a significant level of inefficiency in the sector. The existing literature suggests that, according to the ownership type, Nursing Homes are managed in a different way. In this article, we focus on the nursing homes directors' decisions in the field of Human Resources Management to explain the determinant of their choices. We hypothesize that ownership status is not the only determinant of the directors' decisions and we assume that EHPAD managers have different preferences, correlated with their professional characteristics, which would explain their behavior. **Methods:** As no data exist in France on this topic, we conducted an original survey among a sample of 500 EHPAD managers focused on management practices. Then, we matched this survey with an administrative and national survey, EHPA, which collects information about the general characteristics of the nursing homes, such as capacity, ownership type or localization. Probit models were then used to explain the existence of different behaviors. We focused on human resources management because 80% of the budget in a nursing home are dedicated to human resources. Three decision nodes were studied: organizing the nurses' timetables in 10-hour days versus maintaining a traditional organization in 7-hour days, introducing a regular attendance bonus versus not integrating this bonus in the form of remuneration, proposing diploma courses versus only offering short training courses. **Results:** In all three cases, the choices are significantly associated with the managers' professional characteristics, notably their education. Having a diploma in economics and management increases significantly the probability to adopt strategies that improves productivity such as organizing timetables in 10-hour days and implementing an attendance bonus. Having an initial training in the medical sector and a high level of education increases the probability to offer diploma courses, a strategy that improves quality of care. The ownership is an important characteristic of the context that explains directors' behavior but not the only one: capacity of the structure, geographic localization and characteristics of the staff also play a role. Surprisingly, the level of dependence of the residents as not a strong effect. **Conclusion:** This study shows that Nursing homes directors have some leeway in the field of Human Resource Management and they take decisions according to their preferences, which are strongly correlated to their initial training. These results may have implications in terms of public policy because it appears that training of the

directors is an important lever to improve both cost control and quality of care in this sector.

P11- FACTORS ASSOCIATED WITH FAMILY CAREGIVERS OF FRAIL ELDERLY PREFERENCES FOR THE INSTITUTIONAL CARE AS THE PLACE OF END-OF-LIFE CARE AND DEATH -A COMPARATIVE ANALYSIS IN JAPAN, SOUTH KOREA, CHINA, AND TAIWAN- J.-N. Kim (*Tokyo-University of Social Welfare, Japan*)

Background: The prevalence of frail elderly is growing in East Asia and the family caregivers who live with frail elderly are considering the institutional care for their relatives. Especially, lives in NH (special nursing home) are common in the end-of-life care among community dwelling frail elderly who were certified to be eligible for the LTC (long term care insurance) in Japan. However, the Ministry of Health Labour and Welfare (2014) estimates that 3 million people suffering from dementia need to be institutionalized, but nationwide capacity is only 1.5 million in 2013. Nonetheless, the previous studies were an ongoing determine factors affecting institutions as the choice in place of in the end-of-life care and death of community-dwelling frail persons at homes in Japan. The purpose of this study was to identify variables associated with family caregivers' preference for institutional care as the place of in end-of-life care and death for their frail elderly in Japan, South Korea, China, and Taiwan. **Methods:** The data subjects were the primary family caregivers who live with frail elderly to give care support at home in Japan, Korea, China, and Taiwan. The data was collected through the placement method (in Japan) and via face-to-face interviews method (Korea, China, and Taiwan) in using a structured questionnaire in 2013. The overall sample data included 783 Japanese, 611 Koreans, 800 Chinese, and 555 Taiwanese. **Results:** About a third of family caregivers reported that they had preference for an institutional care and death as place of end-of-life (Japanese 36.0%, Korean 35.0%, Chinese 38.0%, and Taiwanese 40.2%) for their relatives. In fixed effects, family caregivers who received care support from community-based care workers/nurses were significantly associated with the institution as the preference place of death in end-of-life care for their relatives in East Asia. Family caregivers who frail elderly with a higher dementia risk were positively and significantly associated with institution as the preference place of death in end-of-life care in East Asia. In addition, family caregivers with higher economic status were positively and significantly associated with institution as the preference place of death in end-of-life care for their relatives. In addition to random effects, the study found no statistically significant relationship between country-level factors and family caregivers who institution as the preference place of death in end-of-life care for frail elderly. **Conclusion:** The study results show that family caregivers in willingness institutionalizing their relatives have stronger attachments with the frail elderly with higher dementia risk, higher received care support from community-based care workers/nurses, and high economic status in East Asia. **Acknowledgment:** This research was partially supported by the Ministry of Education, Science, Sports and Culture, Grant-in-Aid for Scientific Research (B), 2012-2015 (24330157, Jung-Nim Kim).

P12- THE ROLE AND THE FUNCTION OF THE DEMENTIA CARE MAPPING IN JAPANESE NURSING HOMES FOR THE ELDERLY PEOPLE. H. Shimoyama (*Faculty of Social Welfare, DOHO University, Japan*)

Background: Japanese nursing homes are settled since 1963, based by Welfare Act for the Elderly People, in Japan. At first Japanese

nursing homes were the institutions for elderly people with severe weakness. The elderly people with severe weakness were not able to walk around, so many of them spent a lot of time on the beds. However after that Japanese society had a lot of the elderly people with dementia. So in 1985 Japanese authority gave the training which was concerned with dementia care for staff who worked for Japanese nursing homes. Then Japanese nursing homes accepted the elderly people with dementia. Now about 80% of elderly people who live in Japanese nursing homes have dementia. But originally Japanese nursing homes are not the institutions for elderly people with dementia, many of the elderly people with dementia are able to walk around, and sometimes they want to go outside. The systems of Japanese nursing homes are not designed for the elderly people with dementia. The Japanese nursing homes must accept annual audit by authority, however that audit checks structures of the institutions and the standards of their services mainly, the outcomes of the conditions of the elderly people with dementia are not checked by that audit. The Dementia Care Mapping (DCM) shows the conditions of the elderly people with dementia. For that reason some of Japanese nursing homes use the DCM to clarify the conditions of the elderly people with dementia. The purpose of this study was to clarify the role and the function of the DCM in Japanese nursing homes for elderly people.

Methods: I was investigating one Japanese nursing home from 2009 to 2015 using the DCM. That nursing home had 42 residents and 20 staff. I had done 3 times every year. Totally I had done 21 times the DCM in that nursing home. **Results:** Before the 1st DCM, the nursing home had several problems, some residents showed BPSD, and some staff wondered their care ways were effective or not. The 1st DCM clarified the condition of the nursing home and after that the staff improved their care ways. Gradually the condition of the nursing home was improved. From 2011 to 2012, some residents' health conditions were deterioration as aging. They were in the stage of terminal care. The staff had to get new care ways for those conditions. The DCM helped the staff know how to do. **Conclusion:** The role and the function of the DCM were to clarify the condition of the elderly people with dementia. The DCM served to visualize the status of the nursing home. Several issues had been extracted by the DCM. The staff's skills improved gradually. Next the DCM showed their service was improving. The staff got successful experiences. They wanted to improve their services. The DCM was opportunity for every staff to notice the outcome of their services.

P13- SOCIAL WORKERS ADVANCING ADVANCE CARE PLANNING. M. Bern-Klug (*Associate Professor School of Social Work, The University of Iowa, USA*)

Introduction: Part of social work education is the socialization of the "person in environment" perspective which frames the solution to a problem as sometimes the need for the individual to change, and sometimes the need for the system to change, and often the need for changes in both the individual and the system. This perspective is particularly useful in the nursing home setting when setting up systems to support residents in understanding and articulating their health care preferences. The goal is to develop a system that supports resident-centered care even if residents lose the capacity to communicate. Despite cognitive capacity their wishes can be honored. **Objectives:** 1. Describe the characteristics of nursing home social workers in the USA; 2. Describe the "best practice" functions of nursing home social workers; 3. Describe social work role with residents, family and staff members vis-à-vis advance care planning; 4. Up-date on the development of the POLST Toolkit for nursing homes (A project of the National POLST Organization in the USA, funded by Pew Charitable Trusts.) **Discussion:** An overview of how social workers

can be part of the team that develops protocols and practices for educating staff, residents, and family members about advance care planning options, including POLST (Physician Orders for Life Sustaining Treatment) and for assessing whether the systems are working well to support the preferences of nursing home residents.

Conclusion: Social workers, with their education and experience in crisis intervention, interpersonal conflict, and advocacy have resources that can benefit both the nursing home setting and the people who live there to enhance the likelihood that residents will get the type and amount of medical care they want even if the resident loses the ability to communicate.

P14- MANAGEMENT OF PAIN IN NURSING HOME RESIDENTS WITH CANCER. K.L. Lapane, J.N. Hunnicutt, S.H. Liu, C.M. Ulbricht, B.M. Jesdale (*University of Massachusetts Medical School, Worcester, MA, USA*)

Background: More than 400,000 elderly men and women are projected to die of cancer this year, representing nearly 70% of all cancer deaths. Of all Medicare beneficiaries with cancer, one third receives nursing home care in the 90 days before death and 17% will die there. In nursing homes, ~10% of residents have a diagnosis of cancer that affects their ability to perform activities of daily living (ADL), up from 2% just two decades prior. The objectives of this study were to describe the sociodemographic and clinical profile of nursing home residents with cancer and to estimate the extent of pain reported and pain management in this setting. **Methods:** Using a national United States database with the Minimum Data Set 3.0 from 2011 through 2013, we identified 626,536 nursing home residents with an active clinical diagnosis of cancer. Sociodemographic characteristics (e.g. age, sex, and race/ethnicity), cancer type, ADLs, and cognitive status were examined. Section J of the MDS 3.0 defined pain as "pain or hurting at any time" during the five days preceding the assessment through either self-report or through staff assessment. **Results:** The most common cancer types were lung (n=58,271), prostate (n=42,360), colon (n=31,660), breast (n=30,134), lymph (17,289) and bladder (n=16,716). Twenty-one percent had moderate/severe cognitive impairments and 28.4% were dependent in ADLs. Four percent were receiving chemotherapy and 2.6% received radiation therapy in the nursing home. Sixty-six percent reported pain in the last 5 days. Among those able to be interviewed for pain assessment, 44.0% received pharmacological management of pain and 44.7% received non-pharmacologic interventions for pain. Women had increased odds of pharmacologic management of pain relative to men (adjusted odds ratio (aOR): 1.19; 95% confidence interval (CI): 1.17 - 1.21) as were those who screened positive for major depression (aOR: 1.34; 95% CI: 1.30-1.39). Advanced age (≥ 75 years) was inversely associated with pharmacological management of pain whereas those with moderate (aOR: 1.24; 95% CI: 1.21 - 1.27) and severe (aOR: 1.51; 95% CI: 1.40 - 1.63) cognitive impairments had increased odds of pharmacological management of pain relative to cognitively intact/ mildly impaired residents. Relative to White residents, Black residents (aOR: 0.91; 95% CI: 0.88-0.93) and Hispanic residents (aOR: 0.97; 95% CI: 0.93-1.02) had reduced odds, while Asians had increased odds (aOR: 1.07; 95% CI: 0.99 - 1.15) of pharmacologic pain management. **Conclusion:** In nursing home residents with cancer, the most common symptom reported is pain. Nursing home residents with cancer need effective pain management strategies to relieve suffering and ensure dignity in care. Careful evaluations of the risk to benefit ratio of analgesics (and adjuvants) in a population systematically excluded from clinical trials are warranted.

P15- NURSING HOME DOCTORS' ASSESSMENTS OF BARRIERS AND STRATEGIES FOR END-OF-LIFE CARE IN NORWAY AND THE NETHERLANDS. A. Fosse^{1,2}, S. Zuidema³, F. Boersma³, K. Malterud^{1,2}, M.A. Schaafel^{1,4}, S. Ruths^{1,2} (1. *Research Unit for General Practice, Uni Research Health, Bergen, Norway*; 2. *Department of Global Public Health and Primary Care, University of Bergen, Norway*; 3. *Department of General Practice, University of Groningen, University Medical Center Groningen, The Netherlands*; 4. *Department of Thoracic Medicine, Haukeland University Hospital, Bergen, Norway*)

Backgrounds: Nursing homes (NH) are common places of dying. Patients and their families expect doctors and staff to recognize and meet their needs and wishes. Delivering quality end-of-life (EOL) care requires teamwork, but research suggests that working conditions in NH may hamper functional teams in providing EOL care, especially the participation of NH doctors. The organization of medical services in NH homes and the education in NH medicine and EOL care vary between countries. We aimed to identify NH doctors' experiences about preconditions for quality EOL care in NH in Norway and the Netherlands, and to catalogue suggestions from NH doctors on how medical EOL care can be improved in NH. **Methods:** We prepared a questionnaire based on a similar study from Canada in order to broaden the comparative scope. Factors focused on organizational, educational, financial, legal and personal prerequisites experienced by doctors in their NH when it comes to delivery of EOL care. All NH doctors in Norway and elderly care physicians in the Netherlands were invited to participate in the web-based survey. Differences between the countries were compared using chi-square test and t-test. **Results:** We received 435 completed questionnaires from Norway (response rate about 35%) and 244 from the Netherlands (response rate about 13%). NHs in the Netherlands are normally larger than the Norwegian ones. The Dutch NH doctors are specialists or trainees in elderly care medicine and have got the NH as their main working place, while the Norwegian NH doctors usually are (specialists in) GPs working part time in NH. The perceived barriers for delivering quality EOL care were quite consistent between the two countries. Most respondents reported inadequate staffing, lack of skills and competence among the nursing personnel and heavy time commitment as important barriers to quality EOL care. Few respondents reported good undergraduate education in EOL care, but a majority perceived postgraduate EOL education as good. Most doctors in both countries would welcome improvement strategies like routines for involvement of residents' family, pain- and symptom assessment protocols, EOL care guidelines and routines for advance care plan. They also considered education in EOL care for doctors and nursing staff as important. **Conclusion:** Our findings provide NH administrators, health authorities and communities with knowledge about which elements to focus on in the development of quality EOL care in NH, namely adequate staffing, targeted education and training of staff and doctors, and routines for advance care planning and symptom assessment.

P16- FACILITATING INVOLVEMENT OF RESIDENTS' NEXT-OF-KIN IN LONG-TERM CARE FACILITIES – THE RELATIVES' PERSPECTIVES. S. Nakrem (*Belarusian Association of gerontology and geriatrics, NavapolaNorwegian University of Science and Technology (NTNU), Trondheim, Norway*)

Background: Increase in demand for long-term care in the population and at the same time reduction in the supply of qualified workforce in healthcare challenges the nursing home service. The services will need to rely more on volunteers and a close collaboration

with family members in the future. Studies have shown that residents' next-of-kin often have roles as advocates for nursing home residents and contribute with practical help and social support. However, family members report varying experiences with the collaboration and their role in the nursing home community, and cooperation with residents' family members might be inadequate. It is essential that nursing homes and other long-term care facilities are developed from the understanding of what actually creates a good service, and care quality from the family's perspective is just one piece of the nursing home experience that must be understood in order for optimal value in care to be realized. Person-centered care in nursing homes have been found to give positive outcomes for both the resident and next-of-kin. Collaboration with families is an important part of a person-centered care and may increase the quality of care. The aim of this study was to explore how the residents' next-of-kin experienced the collaboration with the nursing home health care workers, and how their contribution to the nursing home community could be facilitated in order to develop person-centered care. **Method:** Qualitative methodology was used. Sixteen family members of residents in two nursing homes was purposely sampled, and they were interviewed once in three different focus groups. The transcribed text was analyzed by coding and categorizing. **Results:** The findings indicate that the family members had mixed feelings toward the nursing home and the role as next-of-kin. They felt a relief when the needs of their loved ones were taken care of, and had great confidence in the service when everything went well. However, they often felt insecurity when they experienced that quality of service was not good enough. This led to increased time spent in the nursing home and follow-up on care. The next-of-kin experienced their role either as a contributing family member, or as a guest and outsider, depending on how staff included them and level of care quality in the nursing home. From the family members' perspective, three domains emerged that served as important markers of high quality of care: resident contentment, suitability of staff, and environmental context. **Conclusion:** In order to provide the best value in nursing care, the interdependence between strengthening and supporting families and provide care that is person-centered and promotes residents' health, should be attended to by all staff members and management. The family perspective on quality of care offer a framework that may be useful to nursing leadership at all levels of the nursing home organization to identify locally important quality of care strengths as well as markers of poor care.

P17- DIFFERENCES IN THE USE OF PSYCHOTROPIC DRUGS BETWEEN NURSING HOME RESIDENTS AND HOME-DWELLING ELDERLY – A NORWEGIAN STUDY. A.F. Fog^{1,2}, J. Straand², H.S. Blix³ (1. *Oslo Municipality, Nursing home Agency*; 2. *Dept. of General Practice/Family Medicine, Institute of Health and Society, University of Oslo*; 3. *Dept. of Pharmacoepidemiology, Norwegian Institute of Public Health, Oslo, Norway*)

Introduction: Polypharmacy is frequent in old age due to comorbidities and chronic diseases. The nursing home population is characterized by frailty and a high prevalence of dementia. The documented effects of psychotropic drugs in this population are limited. The Norwegian Prescription Database (NorPD) includes all dispensed prescription drugs for home-dwelling people, however, not for nursing home residents. Therefore, drug utilization patterns at nursing homes can be investigated only by research. Whether home-dwelling elderly are treated differently than those living at nursing homes is not known. **Objectives:** We compared the use of anxiolytics, sedatives-hypnotics, antidepressants and antipsychotics of Oslo residents older than 80 years living at nursing homes or at home during

2012. We recorded the medication of nursing home residents as part of a medication review in 2012 (n= 1346, aged 80+ years, 30 nursing homes). We retrieved from NorPD the medication of home-dwelling elderly aged 80+ living in Oslo in 2012. Point prevalence rates in the nursing home setting were compared with the annual prevalence rates in the home-dwelling setting (n=23670). **Discussion:** The prevalence rates in nursing homes residents as compared to home-dwelling peers were higher ($p < 0.01$) for anxiolytics (48.9% vs. 16.6%), hypnotics-sedatives (51.9% vs. 31.6%), antidepressants (30.2% vs. 11.6%) and antipsychotics (17.5% vs. 4.3%). Of the twelve most frequently used drugs, elderly living at nursing homes had significant higher use of oxazepam, zopiclone, clomethiazole, escitalopram, citalopram, haloperidol, risperidone and mirtazapine than those living at home ($p < 0.05$). SSRIs are often used in the nursing home setting (1 in 3 residents), in spite of an expected low efficacy for depression in demented patients (80% of the nursing home residents have dementia). The prevalence rates of prochlorperazine and levomepromazine were higher in the home-dwelling setting ($p < 0.05$). Despite an unfavorable benefit to risk ratio, one in ten nursing home residents is using clomethiazole. Long-term use of sedatives-hypnotics and antipsychotics is generally not recommended. **Conclusion:** Nursing home residents are more likely to use all the four drug groups than their home-dwelling peers. Especially the use of oxazepam, zopiclone, mirtazapine, citalopram, escitalopram, risperidone and haloperidol is higher in elderly nursing home residents. Clomethiazole is still used in the nursing home setting. Further research is needed on the appropriateness of therapy according to comorbidity.

P18- PROFESSIONAL CAREGIVERS' BURNOUT IN ALZHEIMER CARE IN FRANCE. P. Zawieja^{1,2}, L. Benattar¹, F. Guarnieri² (1. *Research Unit, & Scientific and Ethics International Council Secretary, ORPEA, France*; 2. *MINES ParisTech, PSL University, Centre for research on Risks and Crises, MINES ParisTech, PSL University, Centre for research on Risks and Crises, Sophia-Antipolis, France*)

Background: It is not clear if burnout prevalence is higher in nursing homes than in other care units. The aim of this study was to elucidate the potential relationship between clinical-behavioral and organizational factors in Alzheimer care and burnout of professional caregivers working in French care settings that inherently (nursing homes) or occasionally (rehabilitation units) receive demented older adults. **Methods:** This study was part of a larger study investigating the potential influence of patient's or residents' Alzheimer's disease on caregivers' exhaustion, in various care settings receiving demented patients. A survey was conducted among professional caregivers of residents with dementia, older than 60 years. The classical Maslach Burnout Inventory was administered to professionals working in 185 nursing homes or rehabilitation units in France— all being part of the private health group ORPEA. Analyses were conducted using quadratic and logistic regression analysis. **Results:** 2,602 professional caregivers from 185 different care settings completed the questionnaire. Prevalence of burnout reached 8.4%. Significant differences emerged for occupation and work experience, when number of children, religion and information about Alzheimer's disease showed slight connections to burnout. No differences were found for sex, marital status, type of setting or type of employment contract. **Conclusion:** The cutbacks in health and care expenditures and the epidemiology of dementia lead to an increasing workload, when health industries encounter difficulties in recruiting and retaining staff. Future research should focus on informing and training caregivers working with demented clients, in an increasing cultural diversity on both sides.

P19- EVALUATION OF AN ADVANCE CARE PLANNING INTERVENTION IN DEMENTIA CARE HOMES: ASPECTS OF FEASIBILITY AND ACCEPTABILITY. K. Brazil¹, G. Carter¹, D. McLaughlin¹, G. Kernohan², P. Hudson¹, M. Clarke¹, P. Passmore¹, K. Froggatt³ (1. *Queen's University Belfast, UK*; 2. *University of Ulster, UK*; 3. *Lancaster University, UK*)

Background: Advance Care Planning (ACP) is a written or verbal record of a person's choices about their future medical care. Despite the importance of ACP for people living with dementia, the provision of it is poor. **Method:** As part of a cluster randomised controlled trial including 25 care homes, carers of residents living with dementia in 13 of these homes were exposed to an ACP intervention comprising: an ACP facilitator; family education; a family meeting; documentation of ACP decisions; and, orientation for GPs and care home staff about the intervention. A feature of the evaluation included documentation on the intervention delivery and stakeholder interviews to assess feasibility and acceptability. The ACP Facilitator maintained a narrative journal and activity log associated with tasks during the intervention delivery. They also completed an interview to discuss their perceptions of the implementation, challenges and benefits of the ACP model. Participating care home managers and family carers also completed an interview to determine their perceptions of such a model. **Results:** On average administration of each ACP intervention took two hours. Findings from the interviews highlighted the acceptability of the intervention, also the importance of such a role to be fulfilled within the care home environment was stressed, however time and staff restraints were noted as key barriers. Nonetheless, the interest and motivation of staff to make such a role possible was clear. **Key Conclusions:** This presentation identifies the feasibility and perceived acceptability of an ACP intervention suitable for dementia residents in UK care homes.

P20- ADMINISTRATION OF MEDICINES IN CARE HOMES (WITH NURSING) FOR OLDER PEOPLE BY CARE ASSISTANTS – DEVELOPING GUIDANCE FOR CARE HOME PROVIDERS. K. Spilsbury, J. Baker, D. Alldred (School of Healthcare, University of Leeds, UK)

Backgrounds: Older people in care homes are among the most vulnerable members of our society, reliant on care home staff for many of their everyday needs; including taking their prescribed medications. The role of the care assistant in medicine administration in care homes (with nursing) is poorly articulated. Our aim was to develop evidence-based guidance (with the Department of Health) on the role of the care assistant in medicine administration in UK care homes with nursing for older people. **Methods:** We have conducted a 'rapid review' of literature and related relevant legislation and policy documents. Our focus, to inform the development of subsequent guidance, is UK literature but this is located within an international context. Our framework for conducting the review ensures that the methods deployed are conducted in a rigorous and transparent way. Thirty-two UK papers are included in the review. The majority of the included literature (n=23) comprises: legislation, regulation, professional standards, standards and guidance from national bodies and organisations, improvement projects and audit, descriptive articles from the care sector and news items. Only nine research papers provided findings of relevance to the focus of this review. **Results:** The review has informed the development of guidance for care home providers on the role of the care assistant in medicine administration in care homes (with nursing) for older people. The law does not prevent care assistants from administering medicines

in care homes. However, there is legislation, guidance, professional standards and evidence that inform the roles and responsibilities of the registered provider and individual staff (Registered Nurse and Care Assistant) involved in medicine administration. This broad ranging literature will be discussed and related to the evidence-based guidance that will be shared in this presentation. **Conclusion:** There is a workforce crisis in the care home sector. Considering ways to 'free up' time of the registered nursing resource is a priority for care home providers, practitioners and policy makers. This presentation will address uncertainties about the role of care assistants administering medicines in care homes with nursing for older people. This provides an opportunity for the care home workforce to reconsider roles and responsibilities that may enhance the care for residents through timely administration of medicines and promoting the role of the registered nurse in important areas of care, such as case management.

P21- EXPERIENCES OF OLDER PEOPLE LIVING WITH DEMENTIA PARTICIPATING IN HIGH-INTENSITY FUNCTIONAL EXERCISE IN NURSING HOMES: "WHILE IT IS TOUGH, IT'S USEFUL". N. Lindelöf¹, L. Lundin-Olsson¹, D. Skelton², B. Lundman³, E. Rosendahl^{1,4} (1. Department of Community Medicine and Rehabilitation, Physiotherapy, Umeå University, Umeå, Sweden; 2. School of Health & Life Sciences, Glasgow Caledonian University, Glasgow, UK; 3. Department of Nursing, Umeå University, Umeå, Sweden; 4. Department of Community Medicine and Rehabilitation, Geriatric Medicine, Umeå University, Umeå, Sweden)

Introduction: Studies have shown that older people with dementia can benefit from exercise, but little is known about their experiences of exercise. A high-intensity functional exercise program has positive effects on physical functions in older people living with dementia in nursing homes. The complexity of dementia symptoms can make it more difficult for people with dementia to participate in exercise programs. However, there are few studies where older people living with dementia in nursing homes describe their experiences of participating in strenuous exercise. **Objectives:** To describe the views and experiences of participation in a high-intensity functional exercise program among older people living with dementia in nursing homes. **Methods:** This qualitative study was part of the Umeå Dementia and Exercise (UMDEX) study, which is a cluster-randomised controlled trial set in nursing homes in Northern Sweden. Residents with dementia diagnosis, aged ≥ 65 , dependent in ADLs, a Mini-Mental State Examination (MMSE) score of at least 10, and a physician's approval were randomised to either exercise, or control activity. The exercise intervention was based on the High-Intensity Functional Exercise (HIFE) program, which aims to improve lower limb strength, balance, and mobility. The HIFE program comprises 39 lower-limb strength, balance, and gait exercises performed in functional, weight-bearing positions. The exercise was performed in 45-minute sessions, 2-3 times per week, for 4 months. The sessions were performed in small groups led by physiotherapists. Twenty one exercise participants were interviewed about their experiences of the exercise. They were aged 74-97, 15 of them were women, and their values ranged from 10 to 23 on MMSE. The interviews took place directly after and in the same rooms as the exercise sessions. The interview data was analyzed using qualitative content analysis. **Results:** The analysis revealed four themes: Exercise is challenging but achievable; Exercise gives pleasure and strength; Exercise evokes body memories, and Togetherness gives comfort, joy, and encouragement. The intense and tailored exercise, adapted to each participant was perceived as important, challenging but achievable. Exercising gave pleasurable moments and perceived improvements of mental and bodily strength.

Memories of previous physical activities aroused and participants rediscovered bodily capabilities. Supervised exercise in small groups created safety, coherence, and was experienced as spurring. **Conclusion:** The study shows that it is possible to elicit valuable views and experiences of exercise participation among older people living with dementia. Overall, the experience was positive and the interviews gave new insights about the applicability of a high-intensity functional exercise program. People with dementia, living in nursing homes described their experiences of the exercise program as challenging but achievable, giving pleasure and strength, and evoking body memories. The group context was encouraging. The results stresses the importance of giving older people living with dementia in nursing homes the chance to take part in exercise.

P22- THE ASSOCIATION BETWEEN FALL RISK AND QOL AMONG HIGH-CLASS-GRADE NURSING HOME RESIDENTS: A CROSS-SECTIONAL STUDY. Y. Ishimoto¹, T. Wada², Y. Kimura³, R. Sakamoto², M. Fujisawa², K. Okumiya², K. Matsubayashi² (1. Graduate School of Medicine, Mie University, Japan; 2. The Center for Southeast Asian Studies, Kyoto University, Japan; 3. Graduate School of Human Sciences, Osaka University, Japan)

Background: Falls are major public health concern and 10-30 % of community-dwelling elderly and 40% of residential elderly experience at least one fall during a year in Japan. Fall is the principal cause of morbidity, frailty and mortality. The number of self-paying nursing homes is increasing in Japan. Few studies showed the relation between fall risk and Quality of Life (QOL) in self-paying nursing home. Five item fall risk Index (FRI-5) is 13-point simple screening test to assess the risk of fall, and clinically useful. The aim of this cross-sectional study was to investigate the association between FRI-5 and subjective QOL assessment among the high-class-grade nursing home residents. **Methods:** Study population consisted of 195 elderly subjects aged 63 years and older who live in the nursing home in Kyoto city, in Japan. We conducted the comprehensive geriatric assessment questionnaire in 2015. FRI-5, basic activities of daily living (ADL), the Tokyo Metropolitan Institute of Gerontology Index of Competence (TMIG), the 15-item Geriatric Depression Scale (GDS), life-style, medical history current medication use and subjective QOL were assessed. Assessment of subjective QOL was measured by visual analogue scale and health related quality of life test (SF-8). Using FRI-5 cutoff value of 6, participants were divided into two group: high fall risk group and low fall risk group (FRI-5 scores of ≥ 6 and < 6) and compared the characteristics of those groups. We evaluated correlation between FRI-5 and QOL score. Student's t-test was used for continuous variables the χ^2 -test for categorical variables and for Spearman's rank correlation coefficient for correlation. **Results:** The high fall risk group (FRI-5 ≥ 6) was significantly older (88.0 vs 82.4) than those low fall risk group (FRI-5 < 6). GDS score, prevalence of ADLs dependency, taking sleeping pill and bone fracture/ Osteoarthritis were significantly higher in high fall risk group than those in low fall risk group. Basic ADL score, social role score, self-rated health, each score of SF-8 in high fall risk group were significantly lower than those in low risk group. FRI-5 was significantly correlated both with self-rated health and each score of SF-8 ($p < 0.05$). **Conclusion:** The elderly with high fall risk had low score of ADLs and high prevalence of dependent ADLs, high depression score and low QOL score in this study. Our findings suggest that fall risk may associate with low QOL. However we could not indicate a causal connection between fall and QOL due to cross-sectional study. Fall prevention should include not only interventions of physical exercise and home modification but also an improvement of QOLs.

P23- MOTIVATION TO PARTICIPATE IN HIGH INTENSITY EXERCISE AMONG OLDER PEOPLE LIVING WITH DEMENTIA IN NURSING HOMES. A. Sondell¹, H. Littbrand^{1,2}, J. Nilsson Sommar³, L. Lundin-Olsson¹, E. Rosendahl^{1,2}, N. Lindelöf^{1,2} (1. Department of Community Medicine and Rehabilitation, Physiotherapy, Umeå University, Sweden; 2. Department of Community Medicine and Rehabilitation, Geriatric Medicine, Umeå University, Sweden; 3. Department of Public Health and Clinical Medicine, Occupational and Environmental Medicine, Umeå University, Sweden)

Background: Motivation to participate in an exercise program is of importance for attendance, achieved intensity, and accordingly for the effects of the exercise program. Lack of motivation or apathy, and lack of interest in activities affect over 70 % of people living with dementia. Symptoms of the dementia disease may also make it difficult to participate in exercise. Results from a previous study indicates that people with dementia might be more motivated to participate in a social activity, than in high-intensity exercise. Motivation to participate in exercise among people living with dementia is sparsely studied and knowledge about motivation can be of importance when facilitating exercise in this group. **Objectives:** The aim was to evaluate motivation of older people with dementia to participate in a high-intensity exercise program compared to motivation of those participating in a social group activity. **Methods:** The Umeå Dementia and Exercise (UMDEX) study is a cluster-randomized controlled intervention trial including 186 participants living with dementia in nursing homes with a Mini-Mental State Examination (MMSE) score of at least 10. Participants were randomized to the High Intensity Functional Exercise (HIFE) program or to a seated social activity. The HIFE program comprises 39 exercises performed in functional, weight-bearing positions and social activity included activities such as reading, singing and conversing. The activities were conducted in groups of 3-8 participants for 45 minutes, five times each fortnight, for four months, with a total of 40 sessions and were led by physiotherapists or occupational therapists. Motivation to go to activity and motivation during activity, was estimated by the activity leaders for each participant according to a five graded Likert scale. Statistical analyses were made with Cumulative Link Mixed Models. **Results:** Of all attended sessions 61.0 % in the exercise group and 62.6 % in the social activity group were estimated to be performed with high or very high motivation. In both groups, motivation during the activities was higher than motivation to go to the activity. There were no differences in total scoring of motivation during activities between exercise and social activity but when also considering the time trend it was a significant difference in favor of the exercise group. **Conclusions:** Among older people with dementia in nursing homes, motivation to participate in a high intensity exercise program can be high. Motivation to participate in high intensity exercise is comparable with motivation to participate in social activity. Motivation during exercise sessions can be higher compared to motivation to go to sessions. Consequently, it is essential to put down extra effort to motivate people with dementia to join exercise groups.

P24- PILOT STUDY ON PSYCHOLOGICAL NEEDS AT COMMUNITY-BASED CARE FACILITIES II - BASIC DATA FOR PSYCHOLOGICAL TRAINING – K. Hori (Human Welfare Dept., Seigakuin University, Ageo, Japan)

Background: The Long-Term Care Insurance Act was introduced in 2000, and by 2006, “community-based services” were

institutionalized to provide care for people in need, so that they could to continue living in their familiar communities. Since then, the use of community-based services has been increasing in Japan. However, issues such as inadequate information-sharing and learning opportunities for care staff, particularly including psychological understanding of nursing situations have been reported. Psychological support is urgently needed to improve the quality of care facilities and mental health of care staff. The lack of schooling and training has been investigated in previous studies by the author that explored the need for effective training for care staff. Two factors were identified by factor analysis: The sense of fulfillment (positive factor) and the sense of Hardship (negative factor). From the perspective of positive psychology, “Hardship” might also have other meanings. **Objectives:** To explore the meaning of “Hardship” in detail. **Discussion:** Participants were inquired whether they had experienced hardship in the following: work content, human relations, and others. Participants that had experienced hardship were required to freely describe the content of the hardship. Sub-categories were developed for each item and descriptions that were collected classified into each sub-category and the number of descriptions classified into each item was calculated. The results were as follows; work contents: N=193, human relations: N=102, and others: N=108. **Conclusions:** It was expected that awareness of specialization would result in the sense of fulfillment, because when work related hardships were caused by specialization care workers experienced a high degree of fulfillment, by recognizing that poor mutual understanding with users and problems in work contents, rather than relationships with users caused hardships. Workers with high awareness of specialization recognized that users were not the cause of hardships related to work contents. They also mentioned a dilemma caused by decreased opportunities for communicating with users when they were busy. It is suggested that hardships in human relationships were more often caused by conflicts with colleagues regarding work, than by interactions with users. It was also suggested that recognition of hardships in work content by staff was correlated with the sense of fulfillment. On the other hand, care workers with low awareness of specialization that regarded users as the cause of hardships, tended to complain about physical hardship, and when they did not regard users as the cause of hardship, they tended to suffer mental hardship. These results suggest that low awareness of specialization might lead to mental and physical hardship. It is possible that high awareness of specialization and mental health are correlated. **Key words:** Community-Based Care Service, Basic data for staff training, Psychological support for caregiving staff, Positive psychology, Psychological well-being.

P25- INSTITUTIONALIZED PEOPLE WITH YOUNG ONSET DEMENTIA: A CHALLENGE FOR MULTIDISCIPLINARY TEAMS. R.T.C.M. Koopmans, A.J.M.J. Mulders (Department of Primary and Community Care, Radboud University, Medical Center, Joachim & Anna, center for specialized geriatric care, Nijmegen, Netherlands, Radboudumc Alzheimer Center, Nijmegen; Archipel Care Group, Landrijt, Centre for Specialized Care, Eindhoven, The Netherlands)

Introduction: Young Onset Dementia (YOD) is defined as dementia with the onset of first symptoms before the age of 65. Although more research becomes available on YOD, data on characteristics and needs of patients with YOD in long-term care facilities are still scarce. Recently data became available of the BEYOnD (Behavior and Evolution in Young Onset Dementia) part I study with data of characteristics, neuropsychiatric symptoms and psychotropic drug use of 230 institutionalized patients with YOD. **Objectives:** The objective of the presentation is to give an overview

of results of the BEYOnD part I- study, with special emphasis on the prevalence and treatment of neuropsychiatric symptoms (NPS) and the association with unmet needs in YOD-patients. NPS are very challenging for multidisciplinary nursing home teams. The lack of psychosocial interventions specifically designed for people with YOD is a possible explanation for the very high rates (90%) of psychotropic drug use, with up to 50% using an antipsychotic that were found in the BEYOnD -I study. NPS also challenges teams to find new approaches like supplying a lollipop for a resident with severe vocally disruptive behavior or specific activities, provided by a psychomotor therapist, to focus the attention of people with Frontotemporal Dementia. **Discussion:** There is an urgent need for the development of non-pharmacological interventions for institutionalized people with YOD. The ongoing BEYOnD part II study, is a complex intervention based on the successful GRIP on challenging behavior intervention for people with LOD dementia. It consists of a digitalized care program tailored to the specific context of YOD with an integrated assessment tool for the detection of unmet care needs as well as a tool for the evaluation of the appropriateness of psychotropic drug prescription. A comprehensive educational program is part of the intervention. **Conclusion:** People with YOD have different needs and therefore need specific treatment approaches. More research is needed for this in literature almost absent group of dementia patients. Dutch long-term care facilities with their specialized units for YOD provide a perfect infrastructure for such studies.

P26- HEALTH CARE UTILIZATION & OUTCOMES IN HOSPITALIZED PATIENTS WITH DELIRIUM AFTER DISCHARGE TO SKILLED NURSING FACILITIES. A. Chandra, A. Sneve, P.A. Rahman, P. Takahashi (*Mayo Clinic, Rochester, Minnesota, USA*)

Background: Delirium during hospital stay increases risk of placement in skilled nursing facilities (SNF) and mortality. Elderly patients discharged to SNF have high comorbidity, functional dependence, and have increased emergency room visits and rehospitalization. The Department of Employee and Community Health (ECH) at Mayo Clinic, Rochester provides post-acute and long-term care to patients discharged to area SNF. We conducted this study to evaluate patient characteristics, health care utilization, and one- year mortality in patients discharged to SNF who had screened positive for delirium during hospital stay. **Methods:** This was a cohort study of patients discharged to a SNF served by ECH between January 2009 and June 2014. The study compared patients who had screened positive for delirium to those that screened negative by nursing assessment during a non-intensive care unit hospital stay. Data were obtained from clinical and administrative records. The Confusion Assessment method was used to screen for delirium. The primary outcome was hospital readmission within 30 days of discharge to a SNF. **Results:** We identified 380 SNF admissions between January 2009 and June 2014 who had screened positive for delirium by nursing assessment during index hospitalization. 364 (96%) admissions were over 65 years old and 181 (48%) were 85 years or older. 59% were female. The Charlson comorbidity index was 10 or greater in 49% of patients. 57% of discharges were from medical services. A fractured hip was the most common discharge diagnosis while delirium was mentioned infrequently. 20% of patients with a positive delirium screen had emergency department visits within 30 days of discharge compared to 15.3% who screened negative. The one- year mortality was 35.3% in those that had a positive delirium screen compared to 15.4% in those with negative screening. 19.2% of patients with a positive screen for delirium needed hospital readmission within 30 days of discharge compared to 13.7% (p<0.003) that had screened negative.

Conclusion: SNF patients who screened positive for delirium during prior hospitalization were older, with high comorbidity, and had higher healthcare utilization and mortality. As patients transition from hospitals to SNF it is important to consider the presence of delirium as a marker to identify the high risk patient.

P27- FALL RISK ASSESSMENT IN INSTITUTIONALIZED ELDERLY LONGITUDINAL STUDY (FRAILS). A. Castaldo¹, L.M. Bergamaschini² (*1. Don Orione Institute, Milan, Italy, Nursing Department of the University of Milan, Italy; 2. MD Department of Biomedical and Clinical Science «L. Sacco» University of Milan, ASP «Pio Albergo Trivulzio», Milan, Italy*)

Introduction: Falls are common in older persons and sometimes lead to unfavorable outcomes, as traumas and hip fracture. The elderly living in nursing homes are at greater risk of injury resulting from a fall, due to a higher degree of frailty. The guidelines on the prevention of falls in older people recommend the evaluation of risk factors, as a key element to prevent further falls and, especially, trauma secondary to falls. The aim of the study was to know the risk factors associated with falls, the incidence and traumatic fall rates in people cared for in nursing home. **Methods:** A prospective observational study with a 12-month follow up planned, with a convenience sample of residents in two nursing homes. Using clinical documentation and incident reporting, for each resident we observed: demographic and clinical characteristics; number and typology of drugs, and falls occurrence. We used univariate and multivariate logistic regression to estimate the predictive role of clinical variables on people who had fallen. Results were considered significant if at a p value <0.05 and a confidence interval of 95%, with two-tailed test. **Results:** The study was carried out between October 2013 - September 2014 in two nursing homes in Milan (Italy). It involved 409 residents, of which 331 in ordinary units, and 78 in specialized units for dementia, predominantly women (82%), with a mean age of 83 years (± 9.4). In the observation period 111/409 (27%) residents fell, of which 54 had a mild to severe lesion. An average of 1.26 falls/resident (± 0.48) was detected, with a range from 1 to 10 falls. There was a higher percentage of falls among males (28/75) compared to females (83/334). Residents with a higher independence in daily living activities were significantly more at risk (OR: 4.75) compared to those with total dependence. Previous falls bring a three-fold risk of falling, while residents cared for in specialized units presented a two-fold risk (OR: 2.22; 95% CI 1.16 to 4.27; P 0.016). **Conclusion:** The results confirmed that a previous fall should be taken as alert of further falls, although it is considered a predictor of more than one risk factor, and as such it cannot be eliminated or preventable, but can direct a first level of screening.

P28- NUTRITIONAL CARE FOR THE ELDERLY: A OBSERVATIONAL STUDY IN A ITALIAN NURSING HOME. A. Castaldo¹, C.A. Di Stefano², M.L. Pancheri³, M. Magri⁴, L. Bonetti⁵ (*1. Don Orione Institute, Milan, Italy, Nursing Department of the University of Milan, Italy; 2. Sicilian Nephrology Center, Cefalù, Palermo, Italy; 3. University of Milan, Foundation IRCCS Cancer National Institute, Milan, Italy; 4. Milan Nursing Council; 5. Milan University, Sacco Hospital, Milan, Italy*)

Introduction: The prevalence protein-energy malnutrition (PEM) in the nursing homes is between 2 and 80%, depending on the type of study and nutritional end points. The genesis of malnutrition in the elderly may be related to several factors: nutrition (insufficient intake, decreased appetite, drug - food interaction), clinical (functional deficiency, tooth loss, dementia), social and care (institutionalization, staff's attitude in nutritional care, characteristics of the environment

dedicated to the meals). The aim of study was to identify: 1. Prevalence of malnutrition in nursing homes 2. Environmental and organizational factors related nutritional care 3. Attitudes of nursing staff about nutrition. **Methods:** A mixed method observational study was conducted in a nursing home of Milan, in Italy. 1. For the first objective, the convenience sample included residents in ordinary and specialized dementia units. Through the analysis of medical records we collected: demographic data, cognitive and functional state, comorbidity and nutritional data. 2. For the second objective we was used direct observation of a) environment; b) nutritional care delivered at residents by staff and interview at nurses on organizational factors. 3. In order to know the attitudes about nutrition, it was administered the questionnaire «Staff Attitudes to Nursing Care Geriatric Nutritional Scale» to staff (doctors, nurses and nurse aids) in selected nursing home units. **Results:** 1. The sample was represented mainly by women (113/128) with age average of 82.4 ± 10.1 . The resident at risk of malnutrition were 13.3% (17/128) and among them 71% had functional disability and 65% had a severe cognitive deficit. The risk of malnutrition was higher in males. 2. In all units there was a dining room. On 118 residents who fed for OS, about a third of them was assisted or spoon fed during the meals. The resident at high risk for malnutrition had significantly lower food intake than people at low risk ($p \leq 0.000$). 3. On 66 participants, including 16 professional health and 50 nurse aids, it was found a median score of 61 that corresponds to a neutral attitude about nutrition. Health workers had more positive attitude with respect to nurse aids. **Conclusion:** This study had the ambition to explore in a combined way the complexity of nutritional care, however, it should preferably be repeated on a larger integrated sample with the perception of the residents about the nutritional quality of care. Specific training could improve the care staff's attitude, involved in meals and nutritional care.

P29- DEVELOPING SURVEY TOOL FOR STANDARDS AND SERVICES IN THE PROCESS OF END OF LIFE CARE DECISION MAKING FOR LONG TERM CARE RESIDENTS IN SOUTH KOREA BY THE NEW LEGATION.

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In South Korea, it has been finally enacted on the Act on Decision over Hospice · Palliative Care and Life-Prolonging Care for Dying Patients' (Jan, 8, 2016. No. 14013, enforcement at July, 2017). The purpose of the law is to legislate on the right to make health care decision in the very last end stage of life and regulate health care expense for hospice · palliative care service, financed by National Health Insurance Service. In current, Korean elderly patients who are placing in the community or Long Term Care facility tend to be limited the knowledge of advance directives (Hong & Kim, 2013). And their family caregivers prefer to make the decision on behalf of elderly parents at their end stage of life (Hwang et al, 2016). Many of physicians are willing to forgo the communication for the decision and defend themselves from any legal complicit with family (Suh & Park, 2014). They are obviously falling through the cracks in the process of end of life care decision making in LTC services. In a result, only 5.5 % of elderly patients who are suffered with advanced dementia end their life in LTC facilities with comfortable care, compared of 62.6 per cent of American elderly patients with same condition (Rhee, 2016). The purpose of this study is to find the disparities between the standard and services under the new law, and will be suggested to develop a survey tool for the protection their rights in the process of end of life care decision making. This study analyzed to develop the survey tool from the nationwide annual report conducted by Korean Elder Protection Agency (2015), the annual LTC survey (2014) by the

National Health Insurance Service, and the report of older persons' rights by National Human Rights Commission of Korea (2014). The study also reviewed the literatures, legal cases, media, and social network services how to translate this issues in a five years to focus on the fact, perception, and culture in South Korea. This study discovered three distinct disparities between the standard and services in the areas on the elderly patients' rights and quality of life under the new law. It was found the limited residents' rights for choices, range, and system in the process of end of life decision making under the new law. This limitation is more harmful in those vulnerable groups, who are in advanced dementia, on living alone without health care proxy, and with lack of information and/or accessibility. The study contends to include these founding on the survey tool to protect elderly residents and their family caregiver in long term care services. And this suggests health care policy makers to be cognizant for some programs-administering an institutional Ombudsman program, establishing an independent inspection program, and recommending requirements for education and license on health care staffs.

P30- THE USE OF CAMERA IN INPATIENT INSTITUTIONAL CARE SERVICES AND PRIVACY.

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Introduction: The fact that the demographic transformation defined as "global aging" is currently taking place and the positive effects of rapid increase of technology on healthcare field increases the number of people in need of care. In the meantime, technology began to be used rapidly in order to increase the quality of care services. Among the tools, the close relationship of camera records with the concept of "privacy" due to its relationship with the "other" emerging in order to meet the needs of care and the concept of "surveillance" constitute matters to be separately overemphasized. **Objectives:** 16 private and public institutions serving as nursing home and old people's home in the city center of Antalya were included in the study, and in-depth interviews were conducted with the managers in charge of these institutions within the scope of the interview formprepared before the study. It was found that using cameras came into question in common use areas of all the institutions due to reasons of supervision of employees, protection of the residents in the institutions against damages, and providing security. Moreover, it was stated that before they were forbidden because of the negativities reflected in the media in 2009, cameras were used in the rooms of the residents in the institutions. **Discussion:** Mentioning the relationship with the other requires discussing the concept of privacy, which can be defined as the state of not feeling the need for identifications specified by others for one's own presence. Privacy, which ensures controlling the borders of 'self' and 'the other', has to be corroded by the close relation required by the increasing care requirement. Additionally, the individuals become an object of information with the concept of surveillance regarded as a source of power but they are unable to become the subject of communication. In this context, the camera used as a tool of surveillance leads to increase social control and also impair the privacy of the persons. **Conclusion:** An individual, being independent and having a particular existence, consciously makes his/her decisions and acts upon. Such characteristics lay the foundations of the privacy concept. Thus, privacy becomes a fundamental feature of becoming an autonomous person. Enhancing the quality of the service among care service processes is possible primarily by paying necessary attention for protection of possibilities of being an individual. Moreover, another main priority to enhance the service quality is to provide benefit to those receiving services and not to pave the way

for disturbance of privacy with groundings of cognitive deficiency of those receiving services.

P31- WHICH ARE THE SUCCESS FACTORS TO REALISE MEANINGFUL ACTIVITIES FOR NURSING HOME RESIDENTS? AN ANALYSIS OF GOOD PRACTICES.

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Introduction: Meaningful activities of daily living (MADL) are important for the wellbeing and health of nursing home residents (NHR). Little literature has been published about MADL and how to organize MADL. Previous own research shows that NHR feel fairly satisfied with their life in the NH. Nevertheless, NHR lose many activities when moving to a NH. The realization of MADL are therefore an important challenge in the NH. It is To realize MADL in a structured way, it is important to learn from good practices. **Objective:** Based on the principles of appreciative inquiry, which focuses on positive aspects and strengths, this study identified success factors to realize MADL in NH. Participant observation of 24 good practices was conducted, using an observation tool and additional semi-structured-interviews with 47 persons including NHR, professional caregivers and NH managers. Activities based on the interests and wishes of the NHR were seen as good practices. Data were analysed using an open minded approach with constant comparative analysis. **Discussion:** Health care professionals see MADL as a dynamic concept. Because MADL are personal, it is a high challenge to realize them for all NHR. In this study, ten success factors could be identified to realize MADL. This realization needs a holistic approach. All actions of the NHR can be seen as an activity and all disciplines are involved in this process. MADL cover the normal daily life of the NHR and are nevertheless challenging. It is important to create a homey atmosphere and have a connection with the neighbourhood. Healthcare professionals should work in a more structured way, with attention for participation and using the talents of the NHR. There should be more attention to goal setting and evaluation. Health care professionals in the good practices were enthusiastic and had competences of creativity, innovation, intrapreneurship. **Conclusion:** The identification of these ten success factors is a step forward to organise MADL in a more structured way, using a client- and activity centred approach. These results are giving new insights for method to realize meaningful activities.

P32- SCREAM SUPPORTING CLINICAL RULES ENGINE IN THE ADJUSTMENT OF MEDICATION.

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Backgrounds: The simultaneous use of multiple drugs increases the risk of suboptimal treatment. This is due to the fact that drugs can counteract each other, exacerbate certain diseases or cause physicians to be reluctant in prescribing new drugs. This situation is strengthened in nursing homes. In order to optimize treatment it is important for physicians and pharmacists to perform Medication Reviews (MR) on a regular basis. Preparing and performing a MR is both time-consuming and quickly outdated because new data is available. Furthermore, it remains a snapshot highly dependent on the knowledge and awareness of the healthcare providers. **Methods:** In this study, a computer program, the Clinical Rules Reporter (CRR) was developed. The CRR supports the healthcare provider in performing MR. The CRR was used as a healthcare intervention to evaluate the effect it may have on the target setting (nursing homes) during one year. Different aspects around the MR process were compared when using the CRR vs normal MR: the time to perform a MR, the amount of interventions, the quality of life, the costs related to hospital admission, the average medication costs per patient and the costs of a MR. A total of 779 patients were included in the study. Randomization took place per main nursing home physician and stratified per ward (somatic and psychogeriatric). In the intervention group the CRR was used once weekly in the control group only regular care was applied (1-2x MR a year). **Results:** The CRR showed a factor 10 time reduction (in terms of man-hours) compared to the regular MR. On average 5,4 clinically relevant interventions per patient per year were performed. No clinically or statistically significant difference was found for the quality of life (using EQ-5D) between both groups. No difference was found in the costs related to hospital admissions or the amount of hospital admissions. We found a statistically significant difference for medication costs, being the costs higher in the control group. Finally, the CRR shows a positive effect on the costs to perform a MR reducing the working time up to a 90% with the consequent personnel costs reduction. **Conclusion:** Given the results we believe in the positive effect the CRR has on the nursing home setting. It doesn't seem logic to perform just one MR a year when the status of the patient and his medication might change every day. Seeing the results we expect that physicians will prescribe more rationally when getting the CRR signs. In addition, it seems that the use of the CRR leads to a positive effect on the nursing homes costs (man-hours and medication costs). However, more research is still needed.

P33- MOBILISING KNOWLEDGE AND IMPLEMENTING EVIDENCE IN CARE HOMES: A QUALITATIVE EXPLORATION OF THE ROLE OF THE CARE HOME MANAGER.

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Introduction: The South West of England has a growing elderly population and a high number of residential and nursing care homes. Reports and studies (British Geriatrics Society, 2011, 2012; Fossey et al 2014) have highlighted the need to improve the quality of care and healthcare provision to older people living in care homes. A gap has also been noted between currently provided care and what research evidence indicates should be provided (Levenson and Morley 2007). A recent scoping review (Orellana et al 2015) confirmed that the care home manager plays a central role in developing the culture of a care home and concluded (a) that managers are an under-researched sector of the social care workforce and (b) that there is a need to understand the manager's role in mobilising knowledge and implementing evidence into practice if we are to improve the care of residents. **Objectives:** We want to understand two things. First, the role, skills and experience needed by managers and the support currently provided to them. Second, managers' roles in creating the culture of the care home: how they mobilise knowledge and implement changes in their everyday practice. We have taken a qualitative approach using semi-structured interviews with a purposefully sampled range of registered care home managers in the South West of England to generate insights from those working in this role. **Discussion:** Using a Framework method we analyse our interviews with managers and are informed by current implementation and knowledge mobilisation typologies. We consider the role of context at the individual, organisational and regional / national policy and how this may help or hinder the manager to implement changes and mobilise knowledge to improve the care of residents. We discuss (1) managers' backgrounds and routes into the role and the skills and qualities needed, (2) how managers influence the culture of the care home and the challenges they experienced in making improvements, and (3) how managers access and apply knowledge and to whom they turn when they want to learn about relevant developments and address problems. **Conclusion:** Our study makes an empirical contribution to an under-researched sector of the social care workforce: the care home manager. Our insights into their role and the current challenges associated with successfully mobilising knowledge and implementing changes will help to (1) inform future training and development of managers and (2) enhance the implementation of changes in practice to benefit the care and wellbeing of residents.

P34- THE CHALLENGES OF DELIVERING AN EXERCISE BASED RESEARCH STUDY INTO CARE HOME SETTINGS: A CASE STUDY EXAMPLE.

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Backgrounds: The recruitment of older people into clinical trials has been recognised as difficult [1]. However, if the intervention is designed for use with older people it is of the utmost importance that the evidence for its use comes from this population [2]. This is not always an easy process and the considerable practical challenges of conducting research in care homes, when carrying out structurally

complex studies regarding the implementation of health service intervention, have previously been reported [3]. This case study contributes further to the methodological literature by reporting some of the practical issues encountered in a feasibility trial of a smaller, structured healthcare intervention (chair based exercise).

Methods: Examination of researcher maintained field notes on an Excel database revealed several difficulties in delivering an exercise intervention in this setting. **Results:** The problems that arose during the delivery of the exercise intervention can be broadly divided into 3 categories. Resident specific factors included: residents who were not involved in the study wanting to join in the exercise sessions; some of the participants not wanting to join in the sessions leading to small numbers in the groups and shorter than planned sessions. Institutional factors included: the closure of half of one care home following a major sewage leak and the relocation of the majority of participants to other homes following this incident; an elongated episode of diarrhoea and vomiting which meant that one home was closed to visitors preventing any intervention taking place; staff acting as gatekeepers to the residents limiting direct contact between researcher and participants to confirm they did not want to participate. Broader cultural issues included: the care home being the residents home leading to reluctance on the part of the researcher and the care home staff to push participation in the intervention; a lack of engagement by care home staff to facilitate the residents participation in the intervention. **Conclusion:** Although there is an inherent need to use older people in clinical trials, the practicalities can sometimes be fraught with problems. This case study outlines the importance of feasibility studies in research to ensure appropriate numbers of participants and successful delivery of an intervention so that valuable data can be collected despite unforeseen difficulties. References: 1. Harris R and Dyson E. Recruitment of frail older people to research: lessons learnt through experience. *Journal of Advanced Nursing*, 2001. 36 (5): p. 643 – 651. 2. McMurdo M. Clinical research must include more older people. *BMJ*, 2013. 343: p. 3899. 3. Zubair M. Recruitment of older care home residents for Optimal: Understanding recruitment and consultee processes as situated within the dynamic context of care home populations in flux. Oral Presentation, 2-3 December 2015, Toulouse, France.

P35- NUTRITIONDAY IN NURSING HOMES – PROGNOSTIC FACTORS FOR 6-MONTH MORTALITY.

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Background: Nursing home (NH) residents are highly vulnerable to mortality due to increased age, cognitive and functional impairment, malnutrition, and multimorbidities. Presently, little is known which characteristics of NH residents are predictive of a negative outcome and thus, the aim of this analysis was to assess risk factors associated with mortality after 6 months in NH residents. **Methods:** NH residents participating in the nutritionDay between 2007 and 2014, aged ≥ 65 years, with complete data on nutritional status, nutrition, general resident characteristics, and 6-month mortality were included ($n=11,133$). Univariate generalized estimating equations analyses were performed for all 25 variables to identify predictors of mortality ($p<0.01$), and significant variables were included in a multivariate analysis. **Results:** Mortality rate was 14.0% within 6 months. 18 variables were significantly associated with mortality in the univariate model. In the multivariate analysis, 11 variables remained in the model ($aROC=0.710$, $p<0.01$). The less residents ate at lunch on nutritionDay the higher was the risk of mortality, with the highest odds ratio (OR

[95% CI]) for residents who ate nothing (3.66 [2.86-4.68]). Immobile (2.01 [1.70-2.40]) and partially mobile residents (1.55 [1.31-1.84]) also had a higher risk of mortality compared to mobile residents. Cancer (1.81 [1.44-2.26]), use of antibiotics (1.60 [1.22-2.10]), dysphagia (1.47 [1.25-1.73]), severe cognitive impairment (1.41 [1.19-1.68]), BMI <20 kg/m² (1.42 [1.22-1.64]), dehydration (1.35 [1.15-1.58]), use of opiates (1.32 [1.14-1.52]), and cardiovascular diseases (1.19 [1.05-1.35]) were all associated with higher 6-month mortality. The odds of mortality increased continuously with increasing age (1.04 [1.03-1.05]). **Conclusion:** In NH residents participating in the nutritionDay, out of 25 variables, the intake at lunch on nutritionDay was the strongest predictor of 6-month mortality, followed by immobility and cancer. Thus, food intake should be monitored and causes of low intake detected and eliminated as far as possible.

P36- NUTRITIONDAY IN NURSING HOMES - SEVERE COGNITIVE IMPAIRMENT AND ITS CORRELATION WITH FOOD INTAKE AND NUTRITIONAL INTERVENTIONS. M. Streicher¹, K. Schindler², CC. Sieber¹, M. Hiesmayr², D. Volkert¹ (1. Friedrich-Alexander Universität Erlangen-Nürnberg, Institute for Biomedicine of Aging, Nuremberg, Germany; 2. Medical University of Vienna, Vienna, Austria)

Background: Cognitive impairment adversely affects nutritional intake. Presently, little is known about nutritional intake and interventions in NH residents with severe cognitive impairment (SCI). Thus, the aim of this analysis was to assess the association between SCI and nutritional intake and interventions in NH residents. **Methods:** NH residents participating in the nutritionDay between 2007 and 2014, aged ≥ 65 years, with complete data on cognition, food intake, nutritional interventions, and 15 potential confounders (nutritional status and general resident characteristics) were included (n=19,723). NH staff was asked if the resident had no, a slight to moderate or severe cognitive impairment (SCI). For the analysis, this variable was dichotomized by merging the first two categories together, resulting in the binary variable SCI no vs yes. Univariate generalized estimating equations analyses were performed for all variables to identify predictors of SCI (p<0.01). Significant variables were included in a multivariate analysis. **Results:** SCI was reported in 29.0% and was significantly associated with all variables in the univariate models. In the multivariate analysis, 10 variables remained in the model (aROC=0.749, p<0.01). Residents who were not able to eat orally at lunch on nutritionDay were 3.62 times [2.57-5.12] more likely to have SCI compared to residents who ate everything. Odds ratios (OR [95% CI]) of SCI were higher for texture-modified (2.11 [1.88-2.36]) and for fortified diet (1.61 [1.38-1.87]) compared to normal diet. Residents with SCI were more likely to receive oral nutritional supplements (1.21 [1.08-1.35]), be immobile (2.42 [2.16-2.70]), have chewing problems (1.82 [1.65-2.01]), be malnourished (1.75 [1.50-2.05]) or at risk of malnutrition (1.39 [1.25-1.44]) according to NH staff, and were less likely to be obese (0.67 [0.61-0.74]). Dehydration (1.39 [1.21-1.60]), dysphagia (1.32 [1.17-1.48]), and female gender (1.22 [1.12-1.33]) also increased the odds of SCI. **Conclusion:** This multivariate analysis in NH residents substantiates the close association between SCI and challenges with nutritional intake as residents with SCI were more likely to be unable to eat orally, require nutritional interventions, have poor nutritional status and risk factors associated with low food intake. Thus, monitoring intake and implementing nutritional interventions are an important part of nutritional care in residents with SCI.

P37- DOES ADVANCED CARE PLANNING INFLUENCE WHERE CARE HOME RESIDENTS DIE? L. Butler, T. Pattison (Salford Royal NHS Foundation Trust)

Background: It has been estimated that, "The median period from care home admission to death is 15 months", (National End of Life Care Intelligence Network, 2012). It has also been estimated that only 20% of care home residents will die in their care home (Badger, Clifford, Hewison, & Thomas, 2009) and residents are, "often hospitalised at the end of life with 19-29% of resident deaths occurring in hospital," (Lane, Zordan, Weiland, & Philip, 2013). These figures highlight the importance of ensuring that residents have access to high quality end of life care and that they themselves and also their relatives are given the opportunity to state their wishes and preferences for end of life in advance. As a result, the concept of advanced care planning (ACP) has been developed. ACP allows patients to discuss with relevant professionals and those close to them, a future plan for their medical and social care should they lose capacity in the future. For those patients that have already lost capacity, a best interest meeting is usually held to determine appropriate goals for future care in an individualised manner. **Methods:** The Salford Care Homes Practice (SCHP) was set up in 2009 and is a GP surgery set up to specifically look after the primary care needs of care home residents across the city. The practice currently provides a 7-day service to its patients, via a virtual surgery based in Salford. During a 15 month period between May 2014 and July 2015 there were 492 deaths from permanent patients registered to the practice. The records of these patients were examined retrospectively after their death. **Results:** From 492 patients, 151 (30.7%) died in hospital, 2 (0.4%) died in the hospice and 1 (0.2%) returned to their own home to die. 338 (68.7%) died in their care home. Of these 338, 292 (85.6%) had an ACP and 49 (14.4%) did not. Of the 151 patients that died in hospital, 52 (24.4%) were recorded as having an ACP in place and 99 (65.6%) had no ACP. This means that if you have an ACP in place you have an 85.6% chance of dying in your care home whereas if you have no ACP, you have a 65.6% chance of dying in hospital. **Conclusions:** Advanced care planning is an effective intervention to allow care home residents to die in their chosen place of death. Without an ACP in place, care home residents have a high chance of dying in hospital. References: Badger, F., Clifford, C., Hewison, A., & Thomas, K. (2009). An evaluation of the implementation of a programme to improve end-of-life care in nursing homes. *Palliat Med*, 23, 502-511. Lane, H., Zordan, R. D., Weiland, T. J., & Philip, J. (2013). Hospitalisation of high-care residents of aged care facilities: are goals of care discussed? *Intern Med J*, 43(2), 144-149. doi:10.1111/j.1445-5994.2012.02749.x; National End of Life Care Intelligence Network. (2012). What do we know now that we didn't know a year ago? New Intelligence on End of Life Care in England. Leicester.

P38- REVIVRE!: INCLUDING UNIVERSITY STUDENT VOLUNTEERS IN LONG-TERM CARE HOMES. L. Garcia^{1,2}, A. Robitaille¹, L. McCleary³, M. Bilodeau^{1,2}, G. Lemay¹, J. Savard¹, M. Egan¹, C. Lacelle¹, M. Agapitos¹ (1. University of Ottawa, Ontario, Canada; 2. Bruyère Research Institute, Ottawa, Ontario, Canada; 3. Brock University, St Catharines, Ontario, Canada)

Background: Life in long-term care (LTC) homes can be both lonely and difficult, posing many challenges to both residents and staff. Chronic shortages of staff means that offering personalized care, fostering one-on-one interactions, and engaging in meaningful activities is not always possible. This pilot project was designed to implement and evaluate a volunteer program within LTC homes,

where residents had access to personalized visits with university student volunteers in their language of choice. **Methods:** University students are trained and matched to residents with whom they volunteer twice a week for three hours at a time, over a period of 18 months. Students are asked to document their experiences through weekly online journals. Students, residents, powers of attorney/caregivers, and staff are invited to participate in focus groups to evaluate the functioning of the program on a regular basis. Minimum Data Set data are gathered every three months to examine the potential impact of the program on resident functioning. Finally, students' interest in pursuing careers with older adults, in LTC, and in linguistic minority situations was assessed on a regular basis via Likert scale questionnaires. **Results:** Students' journal entries point to the wide variety of activities initiated by the volunteers, resulting in increased outings for many residents, and the importance of pairing residents with volunteers who speak their preferred language. Preliminary focus group data highlighted the many strengths of the program, including the shared belief that students and residents are empowered by one another, that students have the time to engage in activities the staff may be unable to, and that student visits act as respite for caregivers. **Conclusion:** Student volunteers are a positive addition to the LTC environment in that they provide the level of personalized interaction that staff members may not be able to give. The implications of implementing a formal volunteer program in LTC homes, including challenges faced and lessons learned, will be discussed.

P39- EVIDENCE BASE FOR PALLIATIVE DRUG TREATMENT IN THE LAST DAYS OF LIFE - A SYSTEMATIC REVIEW. K. Jansen^{1,2}, M.A. Schaafel^{1,3}, D.F. Haugen^{4,5}, L. Pont⁶, S. Ruths^{1,2} (1. Research Group for General Practice, Uni Research Health, Bergen, Norway; 2. Department of Global Public Health and Primary Care, University of Bergen, Norway; 3. Department of Thoracic Medicine, Haukeland University Hospital, Bergen, Norway; 4. Regional Centre of Excellence for Palliative Care, Western Norway, Haukeland University Hospital, Bergen, Norway; 5. Department of Clinical Medicine K1, University of Bergen, Norway; 6. Centre for Health Systems and Safety Research, Australian Institute of Health Innovation, Macquarie University, Australia)

Background: Drugs such as opioids, anticholinergics, antipsychotics and anxiolytics are commonly prescribed for symptom relief in dying patients, and many drug treatment changes occur on the very last days of life. We aimed to conduct a systematic review of the efficacy and safety of drug treatment for symptom management in dying patients the last days of life. **Methods:** Systematic literature review. Protocol was registered in PROSPERO, and the study was reported according to PRISMA guidelines. A systematic literature search was carried out in cooperation with a university librarian, in the following databases: PubMed/MEDLINE, Embase, CINAHL, PsycINFO, Cochrane, ClinicalTrials.gov, and SveMed+. Included were intervention studies, cohort studies and case-control studies involving adult patients from all health care settings and diagnostic groups, in their last days of life, or clinically considered dying, involving any drug treatment with an explicit palliative purpose, by any drug administration route. Systematic reviews were used for reference hand search. Primary outcomes were symptom control, adverse effects, and survival. Patient characteristics, type of intervention and outcome measures were recorded. Quality of included studies was assessed using the The Effective Public Health Practice Project quality assessment tool. **Results:** 19 articles were included on the basis of inclusion criteria. Nine of these were excluded after a further quality assessment, mainly due to lack of robust outcomes, or

complex interventions with indiscernible component effects. 6 RCTs were identified, four of these on anticholinergics for death rattle. The remainder were cohort studies, three of which were prospective. Average number of patients in the ten finally included studies was 106. Almost all patients studied were cancer patients. Only one study specifically addressed pain, and was of retrospective design. Clinical heterogeneity precluded a meta-analysis. **Conclusion:** Due to scarcity of studies on individual drugs, it is difficult to conclude regarding efficacy and safety of specific drugs. Death rattle has been best studied. There is a lack of evidence based knowledge of drug treatment in the dying.

P40- SELF-REPORTED MENTAL HEALTH AS A PREDICTOR FOR ACUTE HOSPITAL ADMISSION AMONG COGNITIVELY INTACT NURSING HOME RESIDENTS: A 5-YEAR FOLLOW-UP STUDY. J. Drageset^{1,2}, G.E. Eide^{3,4}, A.H. Ranhoff^{5,6} (1. Faculty for Health and Social Science, Bergen University College, Norway; 2. Department of Public Health and Primary Care, University of Bergen, Bergen, Norway; 3. Centre for Clinical Research, Western Norway Health Region Authority, Bergen, Norway; 4. Research Group for Lifestyle Epidemiology, Department of Public Health and Primary Care, University of Bergen, Bergen, Norway; 5. Kavli Research Centre for Ageing and Dementia, Haraldsplass Hospital, Bergen, Norway; 6. Institute for Internal Medicine, University of Bergen, Bergen, Norway)

Background: Older people in residential care are in risk for hospitalization. Few studies have explored whether mental and physical health activities of daily living (ADL) and anxiety and depression are associated with hospital admission among cognitively intact nursing home (NH) residents and whether cancer influences these variables. Objective: To study whether mental and physical health, ADL and anxiety and depression symptoms affect the risk of hospital admission and potential interactions with having a cancer diagnosis. **Methods:** A prospective observational study with 5-year follow-up. This study analyzed follow-up data on hospital admissions until 2010 using baseline data from 227 cognitively intact NH residents (60 of whom had cancer) in 2004–2005. Self-reported mental health data were collected by using the SF-36 Health Survey, divided into physical (PCS) and mental sum scores (MCS), and the Hospital Anxiety and Depression Scale. ADL were obtained from registered observation and sociodemographic variables, diagnoses and hospital admissions from the NH records. Personal identification numbers were linked to the record systems of the hospitals, thereby registering all hospital admissions. We analyzed the time elapsing between inclusion and the first hospital admission. **Results:** Residents with increased MCS and residents with cancer had more hospital admissions. Cancer did not interact with MCS and PCS. Residents with the most education, 65–74 years old and ≥95 years old had more hospital admissions. **Conclusion:** Better self-reported mental health sum score, high education and low or high age predicted hospitalization among NH residents. Cancer increased this risk adjusted for all other risk factors. Clinical personnel should also give attention to residents, regardless of their HRQOL, ensuring that they receive proper treatment and care based on symptoms and perceived diseases. Clinical personnel should be aware of residents with fewer available resources, such as education, and of residents who have cancer and observe them to determine whether they have cancer-related symptoms that require intervention before hospital admission is required.

P41- INTEGRATING COMPREHENSIVE GERIATRIC ASSESSMENT AND CASE CONFERENCING TO REDUCE NEUROPSYCHIATRIC SYMPTOMS AND IMPROVE QUALITY OF LIFE IN NURSING HOMES PATIENTS.

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Backgrounds: Long-term care patients in nursing homes (NH) are characterized by frailty and having multiple health problems. They are also characterized by a high prevalence of Neuropsychiatric Symptoms (NPS) and reduced quality of life (QoL), which is known to be associated. Some of these issues relates to the quality of care and do therefore possess a potential for improvement. There is a need for approaches enabling nurses to carry out effective interventions that can promote health related to sustain or improve the nursing home patients' health status. Integrating a comprehensive geriatric assessment (CGA) and case conferencing (CC) might be an effective method to individualize care plans in order to improve quality of care. **Material and method:** As part of a cluster randomized controlled trial including a total of 17 NHs, eight NHs (intervention) in central part of Norway has implemented CGA, using the International resident instrument suite for Long Term Care Facilities (InterRai LTCF) along with tools for assessing dementia related symptoms and CC. A total of 311 patients were included at baseline and will be assessed after three and twelve months. The results from the CGA is reviewed in monthly CC locally in each nursing home. The CC meetings are structured and consist of four main steps; evaluating the effects of earlier interventions, defining patients risks or area for improvement, defining the aetiology of the risk or problem, deciding on interventions and measures for improvement along with an appropriate method for evaluation. The CC health personnel group's consensus is basis for the patient's care plan. **Results:** We will investigate the effect of CGA and CCs on the prevalence of NPS in nursing homes. NPS is measured by Neuropsychiatric Inventory (NPI-NH). The secondary outcomes is depression, ADL and quality of life in dementia (QualiD). Preliminary results from baseline and three-month data collection is being analyzed and will be presented at the conference. **Conclusion/anticipated findings:** CGA and CC in nursing homes is related to sustaining the patient's health and promoting Quality of Life. CGA and CCs might be an effective intervention in order to improve quality of care and reducing the prevalence of NPS in nursing home patients.

P42- A CLIENT-CENTRED APPROACH ENABLES MEANINGFUL ACTIVITIES IN DAILY LIVING IN NURSING HOMES: EFFECTS ON SATISFACTION, PARTICIPATION AND SOCIAL CONTACTS.

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Background: Engagement of Nursing Home residents (NHRs) in meaningful activities of daily living (MADL) enhances their autonomy and Quality of Life (QoL) but this is - in reality - barely not the

case. Therefore this project aimed to test a client-centred and activity-oriented approach, characterized by an active participatory attitude of NHRs and caregivers and based on a systematic therapeutic process. It distinguishes four phases, from an initial 'getting to know each other', over an all-encompassing evaluation of the wishes, desires, priorities, facilitating and inhibiting factors. After cataloguing the resources and strengths of the NHRs, a creative and innovative plan to enable NHRs' preferred MADL can be developed. **Method:** In a pilot study, 24 cognitively healthy NHRs (6 men, 18 women; mean age 87.08 sd 4.81; mean length of stay 39.92 sd 42.68) were included. Outcome measures were QoL (ACSA), number of MADL, self-perceived performance, satisfaction, challenge (COPM), quality of the activities, participation and social contacts (NHAA-survey). Additionally all participants (NHRs and professionals) were interviewed to perform a process evaluation. **Results:** All outcome measures improved although not all of them significant. Only the number of MADL ($p < .001$), the quality of the activities ($p < .001$), social contacts ($p < .05$) did; participation showed a trend ($p < .057$). In the qualitative study, all participants pointed out that social contacts were improved, whereas professionals mentioned more initiative from the NHRs themselves. **Conclusion:** This promising empowering approach needs to be further examined in a RCT to evaluate its outcome and implementation potentials. This approach might guide NH in a more enabling attitude towards NHRs' MADL. Financial support by Artevelde University College is gratefully acknowledged.

P43- THE (ABSENT) CORRELATION BETWEEN 'HAVING SOMETHING MEANINGFUL TO DO IN THE NURSING HOME' AND QUALITY OF LIFE IN RESIDENTIAL CARE.

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Introduction and objectives: Engagement in meaningful activities of daily living (MADL) optimizes people's Quality of Life (QoL), also when living in nursing homes (NH). Enhancing MADL and QoL should also be the aim of the NH itself. This study investigates the meaningfulness of activities of nursing home residents' (NHR) and its correlation to their QoL. **Method:** A survey was administered to 143 cognitively healthy NHR (M 85 years ± 5.72 ; 43 men; 100 women) including cognitive, functional and mobility evaluations, a MADL questionnaire and the Anamnestic-Comparative-Self-Assessment (ACSA) for QoL. **Results:** NHR reported a QoL of 1.78 (range -5+5; modus 3) and an important loss of MADL since their admission in the NH (household M 4.39 ± 1.73 and leisure M 15.87 ± 7.29). Selfcare-activities remained intact although help was needed. 38 respondents gained 'new' activities (e.g. making crosswords, using a computer). Participants scored low on their activity-performance (4.5/10) and performance-satisfaction (5.3/10). They didn't experience their activities as challenging (5.4/10). According to the NHR, inhibiting and facilitating factors were related to the capacities of themselves, the support of the NH-environment and the activities which were offered by the NH, experienced as extremely unchallenging. No correlations were found between QoL and the number of MADL, performance nor satisfaction. A small, although significant correlation was observed between QoL and 'activities according to the individual wishes' ($r = .272$; $p < .05$) and 'activities within the neighbourhood' ($r = .167$; $p < .05$). Sub analysis showed significant poorer results for men,

higher educated NHR, NHR at risk for depression and with higher care needs. **Discussion and conclusion:** Professionals are expected to enable MADL and to promote NHR' autonomy and QoL. Based on this study, this appears, however, to be hardly the case, in particular for some 'minority' groups. It remains a challenge to identify the needs of NHR and enable them to engage in MADL. An approach guiding NHs to develop a creative and innovative attitude towards NHR' MADL is needed. Financial support by Artevelde University College is gratefully acknowledged.

P44- PREDICTING MORTALITY AND LENGTH OF STAY IN LONG TERM CARE FACILITIES – A SYSTEMATIC REVIEW. D. Collingridge Moore, K. Froggatt (*International Observatory on End of Life Care, Lancaster University, Lancaster, United Kingdom*)

Background: In England, the number of older adults residing in care homes, is expected to rise from 350,000 in 2016 to almost 600,000 by 2030. As majority of older adults admitted to care homes will reside there until death, it is unsurprising that mortality rates are higher compared to the general population. Little routine, individual level data are collected in care homes, and there is ongoing debate regarding whether it is appropriate to incorporate mortality rates or length of stay as predictors of care quality. Less is known of how mortality and length of stay vary within and between care homes. Previous studies have used a range of methods to extract and analyse data on these outcomes, including linked administrative records, census data and longitudinal studies. To date, there has been no international review of these studies. This study aims to collate factors associated with variation in mortality rates and length of stay in care homes for older people, at an individual and institutional level. **Method:** A systematic literature search of health related databases was conducted to identify relevant research papers. The databases included MEDLINE, EMBASE, CINAHL and the Cochrane Library. Papers were sourced if they included adults aged over 65 years residing in long-term care settings; and measured mortality or length of stay as one of the outcomes. Studies using observational designs, either retrospective or prospective, were included for data extraction. Data were extracted on individual and institutional characteristics, study design, and primary outcomes. **Results:** The review will identify the predictive power of individual and institutional characteristics associated with mortality and length of stay. It is anticipated that this will include age, sex and self-reported health, co-morbidities and the use of health services leading up to death. Comparisons between the types of care provided by care homes, such as nursing and residential, will also be reviewed. **Conclusion:** Mortality and length of stay in care home residents varies between individuals and between care homes. The findings on characteristics associated with length of stay could be used by health care professionals to facilitate training staff on end of life care, inform treatment choices and support service development. The use of mortality rates as indicators of quality of care or quality of dying is contentious, however the variation in mortality across care homes warrants further research, especially in countries where care is financially supported.

P45- HOW COMPETENT ARE HEALTH CARE PROFESSIONALS IN WORKING ACCORDING TO A BIO-PSYCHO-SOCIAL MODEL IN HEALTH CARE? THE CURRENT STATUS. D. Van de Velde^{1,3}, P. De Vriendt^{1,2,3} (1. *Department of Occupational Therapy, Artevelde University College, Ghent, Belgium*; 2. *Gerontology Department, Vrije Universiteit Brussel, Belgium*; 3. *Department of Rehabilitation Sciences and Physiotherapy, Occupational Therapy Program, Ghent University, Belgium*)

Background and objectives: Over the past decades, due to the demographics changes and presence of more chronic conditions, there has been a paradigm-shift from a purely biomedical towards a bio-psycho-social (BPS) conception of disability and illness, which has led to a change in contemporary healthcare. However, there seems to be a gap between the rhetoric and the reality of working within a BPS model. It is not clear whether healthcare professionals do show the necessary skills and competences to act according to the BPS model. The aim of this study was (1) to develop a scale to monitor the BPS competences of healthcare professionals, (2) to define its factor-structure, (3) to check internal consistency, (4) test-retest reliability and (5) feasibility. **Method:** Item derivation for the BPS scale was based on qualitative research with 7 multidisciplinary focus groups (n=58) of both patients and professionals. In a cross-sectional study design, 368 healthcare professionals completed the BPS scale through a digital platform. An exploratory factor analysis was performed to determine underlying dimensions. Statistical coherence was expressed in item-total correlations and in Cronbach's α coefficient. An intra-class-correlation coefficient was used to rate the test-retest reliability. **Results:** The qualitative study revealed 45 items. The exploratory factor analysis showed 5 underlying dimensions labelled as: (1) networking, (2) using the expertise of the client, (3) assessment and reporting, (4) professional knowledge and skills and (5) using the environment. The results show a good to strong homogeneity (item-total ranged from 0.59 to 0.79) and a strong internal consistency (Cronbach's α ranged from 0.75 to 0.82). ICC ranged between 0.82 and 0.92. The average score of the total BPS scale is 3.11 on a scale from 1 to 5, at first sight a rather good score. However, the 'ideal BPS practice' has not been reached yet. Looking more in detail to the results, a number of improvement points for BPS practice evolved, in particular the subscale 'assessment and reporting' has the lowest score (2.19, SD 0.72). **Conclusion:** The BPS scale appeared to be a valid and reliable measure to rate the BPS competences of the healthcare professionals and offers opportunities for improvement of the health care delivery. Further research is necessary to detect whether the scale is responsive and able to detect change over time. However, regarding BPS working, there seems to be room for improvement.

P46- THE USE OF PHYSICAL RESTRAINT: WHAT NURSES THINK AND FEEL? A QUALITATIVE STUDY. A. Castaldo¹, M. Magri², E. Zanetti³, C. Noci³, M. Gazzola⁴, P. Gobbi², G. Carniel², E. Crotti², G. Muttillio², S. Bazzana³ (1. *Don Orione Institute, Milan, Italy, Nursing Department of the University of Milan, Italy*; 2. *Nursing Council Milan, Italy*; 3. *Nursing Council Brescia, Italy*; 4. *Nursing Council Aosta, Italy*)

Introduction: The use of physical restraint depends on the personal and ethical beliefs of nurses, their knowledge of alternative interventions and organizational aspects. The study follows a multicentric research that investigated the prevalence of physical restraint in hospitals and nursing homes. The aim of this study is to identify nurses' motivations, attitudes, values and feelings about the

practice of physical restraint and which factors favour or hinder its use. **Methods:** This qualitative study was conducted through focus groups. The sample, enrolled on a voluntary basis, consisted of 60 nurses, 40 ward sisters and 30 nursing directors working in nursing homes and hospitals in Italian provinces of Aosta, Brescia, Milan, Lodi and Monza and Brianza, and who already took part in the previous observational research. The interviews of 16 focus groups were carried out in 2011 and they were recorded and transcribed verbatim, with the consent of the participants. Content analysis of the data was validated by the moderators together with the observers. **Results:** The use of physical restraint induces in nurses ambivalent and conflicting emotions like anger, compassion, frustration. The main topics of the discussions were: 1. the definition of physical restraint - is it a protection intervention or a restriction of freedom? 2. the frequency and duration of physical restraint - is it an extraordinary intervention (as indicated in Italian Nurses Code of Ethics) or ordinary intervention? The majority of nurse experienced an ethical dilemma during the decision making process because to use physical restraint imposes a choice between freedom and safety of patients. The decision to restraint often is based on some situational variables, such as the availability of staff and family members to ensure a continuous supervision. The implementation of alternative measures varies according to the setting, to the operators' knowledge and attitude and resources available in organizations (eg. soft mattresses as soft corner, bracelet for patient's). **Conclusion:** The study highlighted the conflict experienced by the nurses toward the use of physical restraint, especially if it is used as a routine practice. Despite the presence of discouraging factors toward the reduction of the use of physical restraint, this research showed the nurses' need and intention to implement every possible alternative.

P47- THE USE OF CRUSHED AND HIDING MEDICATIONS IN NURSING HOME' RESIDENTS: A ITALIAN MULTICENTRIC CROSS-SECTIONAL STUDY. A. Castaldo¹, C. Boeri², A. Giordano³, T. Melo⁴, R. Bagarolo⁵, M. Magri⁶ (1. Nursing, Don Orione Institute, Milan, Italy, Nursing Department of the University of Milan, Italy; 2. San Giacomo Hospital, Piacenza, Italy; 3. Foundation IRCCS Neurological Institute C. Besta, Milan, Italy; 4. San Raffaele Hospital, Milan, Italy; 5. Don Gnocchi Foundation, Milan, Italy; 6. Nursing Council Milan, Italy)

Introduction: The swallowing difficulties and refusal of therapy are the major issues for the use of «altered» drugs (crushed, decapsulated, disguised in food) in the elderly population. This practice, associated with polytherapy, is not free of risks, in terms of therapeutic efficacy and adverse events. The trituration is one of the most common errors of administration of therapy. To assess the prevalence of altered (crushing and covert) medications in residents of the nursing homes; and explore the adherence to the administration indications provided by pharmaceutical companies. **Methods:** Between January-February 2012 a prospective observational study was carried out using the following methods: observation of the drug administration, analysis of clinical documentation, and a brief interview to nurses who administered medications at each unit of the participating nursing homes. The sample consisted of residents at three nursing homes in Milan, Italy. **Results:** The study involved 697 residents, 607 from ordinary units and 90 from specialized units for Alzheimer's disease. Each patient took an average of 7.5 medications per day, whose 6 were per Os. Forty percent of the patients took oral crushed medications. The medications were altered much more for residents that lived in specialized units (46/90; 51%) compared to those that lived in ordinary unit (227/594; 38.2%). Of 2639 drug administrations, 785 were crushed and among these 43% were

administered not in adherence to the pharmaceutical indications. In all units, the drugs were crushed together and the device used was a only pill crushing device for all residents. Twenty percent of patients took the drugs hidied in drinks and food. Main referred cause for crushing and hiding was swallowing disorder. Patients who were administered altered medications had more cognitive and functional deficits, compared to those who received them intact ($p < 0.001$). **Conclusion:** In the nursing homes crushing and covered drug administration is a practice that must be carefully considered, in order to prevent both adverse reactions in patients, both occupational diseases. Process therapy management in the elderly, due to the complexity and the high clinical risk, requires advanced skills, updated and integrated. Several government, business and professional multidimensional programs are needed, including monitoring of adverse events, and, among these, those associated with drug administration.

P48- DEVELOPMENT AND FEASIBILITY TESTING OF A COMPLEX INTERVENTION TO REDUCE HOSPITALISATIONS IN ENGLISH CARE HOMES. A. Blighe¹, M. Downs¹, C. Powell¹, A. Feast^{1,2}, L. Sampson², K. Froggatt³, B. McCormack⁴, S. Nurock⁵, G. Rait⁶, L. Robinson⁷, B. Woodward-Carlton⁵, J. Young⁸ (1. School of Dementia Studies, University of Bradford, UK; 2. Division of Psychiatry, University College London, UK; 3. Health Research, Lancaster University, UK; 4. Division of Nursing, Queen Margaret University, UK; 5. Alzheimer's Society, PPI, UK; 6. University College London, UK; 7. Institute for Ageing, University of Newcastle, UK; 8. Bradford Institute for Health Research, NHS, UK)

Background: Early detection and intervention for ill health in residents in care homes with nursing is problematic. People living in care homes are sometimes admitted to hospital for conditions which, if noticed and treated earlier, could have been managed in the care home. Four key causes of unplanned hospital admissions are respiratory infections, urinary tract infections, dehydration and acute exacerbation of chronic heart failure. Our National Institute for Health Research funded project 'Better Health in Residents in Care Homes (BHIRCH)' aims to reduce rates of hospital admissions from care homes for these conditions by facilitating early detection and early intervention of these conditions. In this presentation we report on the development of a complex intervention and the design of the initial feasibility study in two care homes. Early findings from the feasibility study will also be shared. **Methods:** A mixed methods approach was used to develop the intervention. The final programme incorporates what we know from the literature and practice about effective approaches to ensuring early detection and intervention. It takes into account the multiple perspectives of several key stakeholders. Interviews were held with key informants (e.g. health and social care staff, academics with expertise in care homes research) and consultations on our research materials were held with panels of key experts (both professional and experts by experience). Consensus among key stakeholders was reached during a series of three workshops. The feasibility study will test this intervention in two English care homes over three months. Data will be collected on hospitalisations, health outcomes, staff perceptions of competence and other outcomes of interest. **Results:** Six key components have been developed for the final intervention. These are (1) Early Warning Tool (adapted from Stop and Watch); (2) Care Pathway (a clinical guidance and decision support system); (3) structured method for communicating with primary care; (4) knowledge and skills development for care home staff and family members of residents, family members, close friends and care partners; (5) methods for involving family members, close friends or care partners; and (6) implementation support. Preliminary

findings from the feasibility study and their implications for design of the pilot cluster randomised control trial will be shared. **Conclusions:** This study will provide insight into the factors involved in successfully developing and implementing a complex intervention in care homes. We will report on the implications for development of subsequent care homes research (including our own pilot cluster randomised trial) and what we have learned about ensuring the acceptability (to care home staff/residents) and feasibility of implementing an intervention.

P49- EVALUATING COMPLEX INTERVENTIONS. B. Dewar¹, C. Sharp², K. Barrie¹, J. Meyer³ (1. *University of the West of Scotland, Lanarkshire, Scotland*; 2. *Research for Real, Edinburgh*; 3. *Care for Older People, City University London* Executive Director: *My Home Life programme*)

Introduction: My Home Life runs a leadership and community development programme that is based on the underpinning principles of appreciative inquiry, relationship centred practice and caring conversations. Managers who participate in the year long programme and invited to participate in a continuous process of inquiry. We seek to understand and produce evidence of how the programme contributes towards changing behaviours that improve the quality of life for everyone in care communities. Our challenge is how to produce evidence that matters and that can make a difference to continual learning about promoting quality of life in nursing homes. Many models of evaluation have a linear approach not consistent with the ethos of the programme. In this poster we introduce a strategy for evidencing learning and impact based on circles of influence. **Objectives:** To introduce the underpinning philosophy of the My Home Life programme. To describe a unique approach to evaluation based on the theory of circles of influence. To illustrate early outcomes of using this evaluation framework in practice. **Discussion:** The circles of influence approach will be described and a detailed framework for capturing learning and impact of the leadership programme will be discussed. Our approach seeks to be practical and to engage both programme participants and other stakeholders in a dialogue about learning and change across wider systems. The sources of data that can be used to illustrate the difference that the programme is making and those which may help to attune participants to noticing changes, however small, personal or intangible and to 'recognise the ripples' wherever they appear will be identified. Our approach to collaborative data analysis based on the authenticity criteria developed by Nolan et al will also be highlighted. Early results of using this framework will be given as illustrative examples of this framework in action. **Conclusions:** Evidence from this poster will prompt debate and dialogue about future approaches to evaluation of complex interventions in nursing homes.

P50- UNPREDICTABLE DETERIORATION IN COPD: PATIENTS' PERSPECTIVE. C. Laranjeira (Piaget Institute, Higher School of Health Sciences, Viseu, Portugal)

Backgrounds: Worldwide, Chronic Obstructive Pulmonary Disease (COPD) is a leading cause of death and disability. The disease process is illustrated by a gradual deterioration of health over time, and it involves a great deal of suffering for both patients and their relatives. To study life-experiences of people living with COPD, Noninvasive Home Mechanical Ventilation (HMV) and physical impairment. **Method:** Twelve Portuguese individuals with COPD and noninvasive HMV were interviewed in 2014. The interviews were recorded, transcribed verbatim and analysed according to a method inspired by Ricoeur's theory of interpretation. **Findings:** Participants described the implications of the phenomenon "living with COPD"

as clearly limiting their living space, which had an important impact in daily life. Their descriptions were characterized by feelings of social and existential loneliness. The sick body imposes limitations and reduces the living space available to the patient. **Conclusion:** The lived-experience of physical impairment is found to be "independent dependency" in an active life. The slow development of the disease leads to patients with a long-term dependence on care. The everyday life is characterized by a degree of uncertainty, which makes difficult to plan the future.

P51- THE SUBJECTIVE EXPERIENCE OF CAREGIVERS OF PEOPLE WITH DEMENTIA: A PORTUGUESE REPORT. C. Laranjeira (Piaget Institute, Higher School of Health Sciences, Viseu, Portugal)

Backgrounds: Living with dementia can have a big emotional, social, psychological and practical impact on a person. Many people with dementia describe these impacts as a series of losses and adjusting to them is challenging. Only a small number of investigations study the constructions that formal and informal caregivers present. Having as a central element the subjective meanings which, each caregiver presents on the dementia process, we intend to characterize psychological - including cognitive, behavioral and emotional aspects - formal and informal caregivers of patients with dementia. **Method:** Our sample comprehends 22 participants, being 11 informal caregivers and 11 formal caregivers (i.e. 6 primary caregivers [PC], and 5 secondary caregivers [SC]). In this study, it was used a mixed methodology, i.e., integrations and complementary between qualitative (semi-structured interview) and quantitative methodology, based in certain instruments. Results show the presence of disturbing emotional expressions in dementia caregivers. In informal caregivers subjective meanings related with the search of social supports, were not only the most representative but also the most preponderant. In formal caregivers, subjective meanings related with positive reevaluation were not only the most representative but also the most preponderant. **Conclusion:** Caregivers present different explanations, or subjective meanings, on dementia process, and to analyze the primary implications in the development of clinical interventions and/or educational in order to prevent excessive or disrupting emotional responses.

P52- HEALTH PROMOTING LEADERSHIP STRATEGIES IN A NORWEGIAN NURSING HOME – PROMOTING EMPLOYEE HEALTH AND RESILIENCE AT WORK. R.J. Skjong (NTNU, Department of Nursing Science, Trondheim, Norway)

Background: Absence from work due to sick leave is generally high in the Nordic countries and highest in Norway. Sick leave absence is especially high within health and social services with almost eight percent of planned workdays affected. In 2014, the Norwegian nursing home sector had a sick leave absence of 9.7 percent. This is both a problem for the quality of care and a financial problem, not least; it is a problem for employee health and wellbeing. While the causes for the high rate of sick leave in nursing homes are complex and hard to pinpoint, recent studies have suggested that a significant proportion of sick leave absence is related to leadership styles, and to leadership efforts involved in promoting the health and wellbeing of employees. The current study aims to shed further light leadership strategies that promote the health of employees in a case study of a large Norwegian nursing home, and that seem to have a positive effect on lowering the rate of sick leave absence. **Methods:** In an ongoing case study of a large Norwegian Nursing home, interviews

with leaders and staff are combined with observations of staff interactions. Data also include in-house newsletters and open access documents. Interview transcriptions and field notes are currently being analyzed using guidelines from Grounded theory. **Results:** Preliminary analysis indicate a number of leader strategies. These include the signaling of availability and approachability, engaging in negotiations with staff that provide recognition, support and boundary setting. These strategies constitute leadership practices that are interpreted as essential in promoting the health and resilience of employees in the nursing home. **Conclusion:** By exploring positive leadership strategies, this study aims to provide additional tools for leaders who wish to promote the working health and resilience of employees. These strategies may also be essential in lowering rates of sick leave absence in the Norwegian nursing home sector.

P53- FAECAL INCONTINENCE, CONSTIPATION AND LAXATIVE USE IN NURSING HOME PATIENTS: PREVALENCE AND ASSOCIATIONS DERIVED FROM THE RESIDENT ASSESSMENT INSTRUMENT FOR LONG-TERM CARE FACILITIES (INTERRAI LTCF). L.E. Blekken¹, A.G. Vinsnes¹, K.H. Gjeilo², C. Norton³, S. Mørkved², S. Nakrem¹ (1. Department of Nursing Science, Norwegian University of Science and Technology, Trondheim, Norway; 2. St. Olavs Hospital, Trondheim University Hospital, Trondheim, Norway and Faculty of Medicine, Norwegian University of Science and Technology, Trondheim, Norway; 3. Faculty of Nursing and Midwifery, King's College, London, UK)

Backgrounds: Faecal incontinence (FI) and constipation affects a significant amount of the nursing home (NH) patients. In addition, many of the patients use laxatives regularly. Both FI and constipation are bothersome conditions associated with increased risk of morbidity and reduced quality of life. There is a lack of studies investigating bowel problems among NH patients using validated and comprehensive instruments able to capture the complexity in this population. The level of awareness among health care staff regarding assessment of FI seems limited, and the management of FI and constipation among patients in NHs is challenging for both patients and health care staff. The objective of the study was to investigate prevalence and associations of FI, constipation and laxative use among NH patients using the Norwegian version of the standardized and comprehensive Resident Assessment Instrument for Long-Term Care Facilities (interRAI LTCF). **Methods:** The study had a cross-sectional design. Data on 261 patients from 20 NU units in one Norwegian municipality were collected. Logistic regression was used to analyse the results. Data collected in NHs might be clustered. Consequently, the multivariable models were tested against mixed effects regression models to investigate variance both on the level of patients and on the level of NH units. **Results:** Prevalence of FI was 42.1%. Deficiencies in activities of daily living, cognitive impairment, urinary incontinence and diarrhea were identified as risk factors, and involvement in activities and instability in health/frailty were identified as protective factors. The prevalence of constipation was 23.4 %, and 67.1 % of the patients used laxatives regularly. Balance problems, urinary incontinence, hypothyroidism, and Parkinson's disease were identified as risk factors for constipation. Risk factors for laxative use were reduced ability to communicate and number of drugs other than laxatives, while anti-dementia drugs and being involved in activities were protective factors. Analyses using mixed effects models showed that most of the total variance in prevalence rates of FI (88 %), constipation (90.3 %) and laxative use (97 %), was due to differences in individual patient characteristics. The variance between the NH units did not significantly affect the results. Hence, it is important to stress that FI and constipation in many patients might be prevented and treated if care staff have knowledge of risk factors and undertake individualised assessments and target bowel care

to the needs of the individual patient. **Conclusion:** Prevalence of FI, constipation and laxative use are confirmed high. Individualized care matching the patients' deficiencies might be a key to managing bowel problems. There is a need for studies evaluating interventions targeting bowel problems in NHs. The interRAI LTCF is a useful instrument by its combination of a comprehensive range of individual items and scales that make it possible to capture a holistic picture of the complex NH patient allowing for comparisons of change in patient status across settings.

P54- INFLUENCE OF A LIGHT THERAPY PROGRAMME ON NURSING STAFF'S PROFESSIONAL QUALITY OF LIFE AND SLEEP IN AN ALZHEIMER SPECIAL CARE UNIT. S. Gonfrier¹, S. Al Rifai², L. Merlin³, P. Zawieja³, L. Benattar³ (1. CHU Nice, France; 2. EHPAD Les Pastoureaux, Valenton, France; 3 ORPEA, Puteaux, France)

Introduction: This survey is part of a larger study using environmental light therapy to improve sleep and neuropsychiatric symptoms in dementia, led in a French nursing home. The aim was to document the influence of a light therapy programme on nursing staff's professional quality of life and sleeping time. **Material and methods:** 12 residents and 4 nursing staff members (day team) were exposed to standard light in Period 1 and 3 and to light therapy on Period 2. Light therapy was in shared living areas during three 14-day periods. Sleep time and sleep quality were measured through daily self-assessment. Professional quality of life was weekly assessed by ProQoL. **Results:** No statistically significative differences were noticed between the three periods regarding sleep time (114 values), sleep quality (146 values) and professional quality of life (12 questionnaires). **Limitations and conclusion:** A too small sample size and shift working may explain these results. Further research is needed.

P55- AN OCCUPATIONAL RISK PREVENTION PROGRAMME IN FRENCH NURSING HOMES. L. Merlin, P. Zawieja, L. Benattar (ORPEA, Puteaux, France)

Residents quality of life is tightly connected to staff's quality of work (prescribed, perceived or real). In order to improve residents' quality of life, ORPEA has initiated an approach of occupational wellbeing of their employees. **Aim:** To preserve employees' occupational health and safety. **Methods:** Material: 18,000 staff members in France. Study design: prospective design (2 years). Indicators : decreased frequency of work-related injuries, decreased number of lost working days, decreased staff turnover. **Programme beginning:** October 2015. **Tools:** - Nomination of an occupational risk manager under the authority of the international medical director; - Occupational health and safety training course for all nursing home administrators; - Movements and handling training for two paramedics in each facility; - Creation of highly-dependent residents special care units (8 to 14 beds); - Implementation of weekly physical activities for nurses and nursing assistants; - Choice of individual protection equipments; - Choice of technical aids for residents' transfers; - Launching of a new communication and information tool: occupational health and safety bulletin for administrators; - Occupational health and safety leaflets for staff. **Assessment:** - Participation rate in physical activities. **Expected Results:** - 20% decrease of the frequency index of work-related injuries within one year; -Participation rate in physical activities :50 % of the staff.

P56- USING ENVIRONMENTAL LIGHT THERAPY TO IMPROVE SLEEP AND NEUROPSYCHIATRIC SYMPTOMS IN DEMENTIA. S. Gonfrier³, S. Al Rifai¹, L. Benattar², L. Merlin², P. Zawieja², O. Guerin³ (1. EHPAD Les Pastoureaux, Valenton, France; 2. ORPEA group, Puteaux, France; 3. CHU Nice, France)

Introduction: Alzheimer's disease and related syndromes (AD) is a disease affecting memory but also the relationship with the environment and empower people. Patients with AD present in 90% of cases of behavioral disorders and of these behavioral disorders include agitation, apathy but also sleep disorders by circadian rhythm impairment. In 2014, the Cochrane published a systematic review of the literature over the last 20 years concerning the use of light therapy in patients with a AD. No study has shown proven efficacy on the behavior of patients with AD. The main objective of the study was to assess the influence of environmental light therapy (from 5 a.m to 10 p.m) on nighttime sleep of residents. Secondary objectives were the study of sleep time on the day, anxiety by the COVI scale and behavioral disorders by the NPI scale. **Materiel and method:** 12 residents of a nursing home with an integrated light therapy in common areas were studied. , residents was equipped with a actimeter wrist or ankle for 42 days divided into three periods of 14 days with a standard light in period 1 and 3 and light therapy on period 2 . Sleep time was estimated by two algorithms: Cole-Kripke and Sadeth .Neuropsychiatric symptom were assess by the COVI scale for anxiety and the neuropsychiatric inventory (NPI) The modeling results was carried out by a mixed model. **Results:** Average age was 84.2 (SD 6.5) .On the main objective nightsleep time was significantly higher with light therapy (period 2 vs 1 period) of 15.2 and 16.9 minutes on average, but no significant difference were observed with the third period (period 2 vs 3). Of the total sleep time during period 2 was significantly increased with 55.1 and 46 minutes respectively compared to the period 1 without significant difference between period 2 and 3. For the COVI scale there was a significant decrease of 0,7 point and the NPI scale decrease of 4.7 points significantly between period 1 and 2 . For the 2 scales there were no difference between the period 2 and 3. **Conclusion:** The use of environmental therapy shows significant improvement of nocturnal sleep, total sleep, anxiety and behavior . However, this phenomenon did not show reversibility in the third period of the protocol. Ideally a cross-over protocol with longer exposure time could show this phenomenon definitively.

P57- FEELINGS OF NURSING HOME NURSES – FOCUSING ON ACCOMMODATION OF SUDDEN CHANGES IN ELDERLY USERS WITH DEMENTIA SYMPTOMS. K. Matsumoto¹, Y. Tsunekuni¹, Y. Kametaka¹, A., Shiraishi¹, M. Nagoshi², M. Itto¹, M. Kirino² (1. Kawasaki University of Medical Welfare, Okayama, Japan; 2. Okayama Prefectural University, Okayama, Japan)

Background: The burden placed on family members providing home care is considerable, including psychological stress, restrictions on their own lifestyles and a sense of uncertainty regarding the future. More recently, in addition to this burden of providing care, another known major source of concern for family members is the potential for encountering a situation that requires them to make medical decisions, including the accommodation of sudden changes in the person they are caring for. This study was conducted for the purpose of identifying the thoughts of a nurse having considerable experience at a nursing care facility regarding her involvement in accommodating sudden changes among elderly dementia patients since such facilities are considered to be comparatively similar to situations encountered

during the course of providing home care. **Methods:** Those study participants who indicated an intention to cooperate were interviewed using a semi-structured questionnaire. Abstraction levels were then obtained from the data and encoded followed by extraction of categories and subcategories. Ethical consideration was fully taken into consideration the guarantee of privacy, and besides it. **Results:** The study participants consisted of one woman in her thirty employed as a nurse. Three categories were extracted from the analysis results, consisting of «Body observation and manual », « When I reconsidered, uneasiness was felt.» And «It's difficult to observe active aged people». **Conclusions:** Daily body observation and existence of a manual are important to elderly's observation. Before elderly changed suddenly, a nurse felt some uneasiness. The participants had previous experience with accommodating sudden changes in the condition of users, and implemented flexible accommodations in line with the situation at the time.

P58- ATTITUDES OF DOCTORS TOWARDS EXPANDING PROFESSIONAL COMPETENCIES OF NURSES AND MIDWIVES REGARDING PRESCRIBING MEDICINES AND ISSUING PRESCRIPTIONS. A. Zarzeka¹, M. Panczyk¹, F. Dąbrowski^{2,3}, J. Belowska¹, N. Mazur⁴, J. Gotlib¹ (1. Division of Teaching and Outcomes of Education, Faculty of Health Science, Medical University of Warsaw, Poland; 2 Prof. Jan Nielubowicz Regional Medical Chamber in Warsaw, Poland; 3 First Department of Obstetrics and Gyneacology, First Faculty of Medicine, Warsaw Medical University, Poland; 4 Student Research Society for Medical Law, Medical University of Warsaw, Poland)

Backgrounds: Providing nurses and midwives (N&M) with the right to prescribe certain medicines, issue prescriptions, and refer patients for specific diagnostic tests is a method to improve the availability of healthcare services. Physicians need to approve of those changes so that N&M could do perform new competences. The aim of the study was an attempt to assess attitudes of doctors towards expanding competencies of nurses and midwives regarding prescription and continuation of medicines as well as referral for diagnostic tests by the place of employment. **Material and Methods:** The study enrolled a total of 436 persons (245 women and 193 men). Mean age of study participants was 36 years (min. 21; max. 76; SD:11.65; median:31). An anonymous survey was carried out between February 1 and 7, 2016. The Mann-Whitney/Wilcoxon non-parametric test was used to estimate potential differences between hospital and primary care doctors. **Results:** Most participants agreed that expanding competencies of N&M in prescribing medicines and issuing prescriptions would raise the prestige of those professions. Doctors had a strongly negative opinion on preparation of N&M to exercise their new powers, particularly to issue prescriptions. Primary care physicians were significantly more willing to agree with statement «Nurses and midwives should be able to «re-order» medicines prescribed earlier by a doctor» (3.21/5) compared to in-patient health care doctors (2.83/5). **Conclusions:** The present study demonstrated that doctors were sceptical about nurse prescribing. Differences between the opinions of primary care doctors and in-patient health care doctors on writing out prescriptions on medical order may be indicative of either particular importance of prescriptive powers in primary care or an excessive number of administrative obligations of physicians that may be mitigated by the new competencies of N&M. Attitudes of doctors towards nurse prescribing need further studies, particularly as qualitative study among focus groups.

P59- HOSPITALITZACIÓ DOMICILIÀRIA INTEGRAL (HDI): AN USEFUL HOSPITAL-AT-HOME CARE MODEL FOR HEALTH CRISES MANAGEMENT IN CATALAN NURSING HOME RESIDENTS. M.À. Mas, M. Inzitari, R. Miralles (Universitat Autònoma Barcelona, Catalonia, Spain)

Backgrounds: Older nursing home residents have frequent Emergency Department and hospital admissions, leading to several negatives consequences of hospitalisation. Managing health crises with hospital-based resources seems an opportunity to provide Comprehensive Geriatric Assessment (CGA) based integrated care as an alternative to hospitalisation in these vulnerable patients. **Methods:** We present new data from the HDI PhD project, analysing an innovative CGA-based hospital-at-home (hah) intervention tailored to older patients with frailty, disability and multimorbidity. The resource was developed to manage medical and surgical health crises leading to acute disability. We piloted it in the urban area of Badalona, Catalonia, including both own home and care home older individuals. In order to evaluate efficacy of the model for nursing home residents, we analysed clinical characteristics, based on CGA, and clinical results (health resolution without readmission or death) and functional resolution (measured as functional gain/functional loss >35%) of nursing home hah patients and we compared them with characteristics and results of hah patients living in own home, from the whole sample of patients included in the pilot project. **Results:** From a 484 patient cohort, 88 (18.2%), were institutionalised in care home. Main characteristics of the sample (compared with patients living in own home) were –mean (SD) or %–: age 85.5 (5.8) vs. 84.2 (6.8), $p < 0.1$; female 77% vs. 67%, $p < 0.08$; main diagnostic group orthopaedic 52% vs. 26%, medical 43% vs. 63%, stroke 5% vs. 11%, $p < 0.01$; baseline Barthel score 65.5 (22.6) vs. 76.1 (22.1), $p < 0.01$; Barthel score at hospital-at-home admission 29.1 (23.7) vs. 42.9 (24.9), $p < 0.01$; dementia 66% vs. 38%, $p < 0.01$; delirium 25% vs. 17%, $p < 0.09$ and number of geriatric syndromes 5.4 (1.4) vs. 4.8 (1.5), $p < 0.01$. Main results (compared with patients living in own home) were: health resolution without hospitalisation or death 75% (vs. 77%, $p < 0.5$) and functional resolution 73% (vs. 77%, $p < 0.4$). **Conclusion:** The new CGA-based hospital-at-home care model seems a good model to provide effective crisis resolution in vulnerable nursing home residents with complex health crises. Despite older age, higher disability and higher prevalence of geriatric conditions, the hah in care homes programme obtained good and comparable clinical results to those obtained in the own home sample. Future studies should validate these results in other areas.

P60- INFLUENCE OF ENVIRONMENTAL FACTORS ON FOOD INTAKES OF NURSING HOME RESIDENTS: A SURVEY COMBINED TO A VIDEO APPROACH. F. Buckinx¹, A. Morelle², S. Adam³, J.Y. Reginster¹, N. Labeye², M. Locquet¹, O. Bruyère¹ (1. Department of Public Health, Epidemiology and Health Economics, University of Liège, Belgium; 2. Nutrition and Dietetics, Haute Ecole de la Province de Liège, Belgium; 3. Psychology of senescence, University of Liège, Belgium)

Backgrounds: Introduction: The aim of this study was to assess the influence of the environment on food intakes in nursing home. **Methods:** Meals, in 9 distinct nursing homes, were filmed and the food intakes of a sample of randomly selected residents were measured by the precise weighing food method. Then, residents responded to a questionnaire related to their perception of the environment during meals. Finally, a panel of volunteer experts were asked to answer a questionnaire related to their own perception of the meal environment after having watched a video of the lunch in each

nursing home. The relationship between food intakes and perception of the environment, by the residents and by the experts, was assessed. **Results:** A total of 88 residents, aged 79.9 ± 15.7 years (65.9% of women) from 9 different nursing homes were included in this study. The perception of the environment during meals in the institution by the residents was assessed by different indicators (i.e. noise, space, comfort, light, smelling, perceived satisfaction of meals, taste of meal, presentation of meals, service, setting). It was not associated with food intakes of the elderly. However, a pleasant setting, as judged by the experts through the video analysis, was associated with greater food consumption by the resident. **Conclusion:** To the best of our knowledge, our results are the first highlighting the fact that a pleasant dining room setting is positively associated with food intake of nursing home residents.

P61- RELATIONSHIP BETWEEN POLYPHARMACY AND EMERGENCY ADMISSIONS AND HOSPITALIZATIONS IN OLDER ADULTS LIVING IN NURSING HOMES. J.F. García-Gollarte¹, F.M. Martínez-Arnau^{2,3}, P. Pérez-Ros³, S. Baixauli-Alacreu³, M. Martínez-Martín³, D. Montero Ruiz³, F.J. Tarazona-Santabalbina^{3,4} (1. Grupo Balleol, Valencia, Spain; 2. Department of Physiotherapy, Universitat de Valencia, Valencia, Spain; 3. Nursing Faculty, Universidad Católica de Valencia San Vicente Mártir, Valencia, Spain; 4. Department of Geriatrics, Hospital Universitario de la Ribera, Valencia, Spain)

Backgrounds: Elderly living in nursing homes demonstrate higher levels of comorbidity and an elevated number of daily drugs. These events are related to polypharmacy and higher side effects. The aim of the study was to investigate the relationship between the polypharmacy (4 daily drugs or more) and the number of hospitalizations and emergency admissions in a group of older people living in nursing homes. **Methods:** Cross sectional study. The recruitment period took place from February 2015 to April 2015. The follow up period study included twelve months before the recruitment study. The study took place in four nursing homes of Balleol Group (Burjassot, Valterra, Gobernador Viejo and Serrera) in Valencia, Spain. The inclusion criteria were 65 years and older, and living in a nursing home at least for 12 months. The exclusion criteria were temporary admissions, and people, unwilling to sign the informed consent form. **Discussion:** We included 451 subjects (79.6 % women), mean age 86.31 ± 6 . The prevalence of polypharmacy was 79 % with a mean of 7.53 ± 3.69 drugs, anticholinergics (0.49 ± 0.67), antidepressants (0.32 ± 0.5), neuroleptics (0.22 ± 0.473) and anxiolytics (0.24 ± 0.49). The mean of attendance to the emergency room in the last 12 months was 0.34 ± 0.73 , and the mean of hospitalizations was 0.31 ± 0.66 . There were differences between polypharmacy and number of hospitalizations (Mean differences= 0.21; 95% CI: 0.09, 0.33; $p < 0.001$), antidepressants (Mean differences= 0.14; 95% CI: 0.03, 0.25; $p = 0.01$), anxiolytics (Mean differences= 0.33; 95% CI: 0.21, 0.46; $p < 0.001$) and neuroleptics (Mean differences= 0.18; 95% CI: 0.01, 0.2; $p = 0.03$). There were not differences between number of drugs and number of urgent admissions. **Conclusions:** Polypharmacy is related to a number of hospitalizations, antidepressants, anxiolytics and neuroleptics. The prescribing manner of medication needs to be revised for elderly living in nursing homes in order to avoid additional adverse effects.

P62- CONCORDANCE BETWEEN GERIATRIC ASSESSMENT SCALES AND EUROQOL-5 DIMENSIONS-3 LEAVES IN NURSING HOMES. J.F. García-Gollarte¹, F.M. Martínez-Arnau^{2,3}, P. Pérez-Ros³, S. Baixauli-Alacreu³, M. Martínez-Martín³, D. Montero Ruiz³, F.J. Tarazona-Santabalbina^{3,4} (1. *Grupo Ballesol, Valencia, Spain*; 2. *Department of Physiotherapy, Universitat de Valencia, Valencia, Spain*; 3. *Nursing Faculty, Universidad Católica de Valencia San Vicente Mártir, Valencia, Spain*; 4. *Department of Geriatrics, Hospital Universitario de la Ribera, Valencia, Spain*)

Backgrounds: Quality of Life (QoL) is described as “a broad ranging concept affected in a complex way by the person’s physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment” according to the World Health Organization. There are multiple instruments to assess QoL in the elderly, but there is a lack of standardization. The best QoL instrument should be generic, feasible and brief, and it should also include multidimensionality and subjectivity. The Comprehensive Geriatric Assessment includes geriatric assessment scales for clinical, functional, psychological and social dimensions and the QoL scale also assesses multidimensionality. The aim of the study was to determine the intrinsic validity of the EQ-5D-3L to geriatric assessment scales in a population of community-dwelling elderly people. **Methods:** Cross sectional study. The recruitment period took place from February 2015 to April 2015. The follow up period study included twelve months before the recruitment study. The study took place in four nursing homes of Ballesol Group (Burjassot, Valterra, Gobernador Viejo and Serrería) in Valencia, Spain. The inclusion criteria were: 65 years and older, and living in the nursing home 12 months at least. The exclusion criteria were Barthel, Tinetti, VAS for pain and Cornell, were collected and were related to dimensions to EQ-5D-3L. Tinetti scale functional score refers to dimension 1 (mobility) in EQ-5D. Barthel scale functional score refers to dimension 2 (self-care) in EQ-5D. Cornell score refers to dimension 4 (anxiety-depression) in EQ-5D and VAS for Pain Scale functional score refers to dimension 5 (pain) in EQ-5D. **Results:** We included 233 subjects (74% women) aged 85.5 ± 7 . The older adults have moderate levels of dependency (Barthel: 49.13 ± 32.26 , Tinetti: 15.87 ± 10.86) lower scores for pain and for depression (VAS for pain: 2.44 ± 2.8 , and Cornell 5.46 ± 3.64). QoL VAS index was 41.76 ± 32.83 . A moderate correlation was found between the Barthel score and the ‘self-care’ dimension ($K=0.384$, $p<0.001$) and a moderate correlation between the Tinetti score and the ‘mobility’ dimension ($K=0.325$, $p<0.001$). We observed no correlation between the Cornell Scale score and the ‘anxiety-depression’ dimension ($K=0.078$, $p=0.3$) and poor correlation between VAS for pain and the ‘pain’ dimension ($K=0.124$, $p=0.03$). **Conclusions:** The EQ-5D scale is not a sufficient instrument to assess QoL in nursing homes older people. More studies are needed to know a good tool to assess QoL in nursing homes.

P63- A SOCIAL EXPERIMENT TO OVERTURN PREJUDICES ON ALZHEIMER’S DISEASE IN NURSING HOMES USING ARTISTIC PHOTOGRAPHY. R. Nicotra¹, S. Bruno¹, F. Scalora¹, D. Segretario¹, P. Schirò², P. Fernandez¹, L.J. Dominguez², M. Barbagallo² (1. *Residenza Sanitaria Assistenziale (Nursing Home) Piana degli Albanesi, Piana degli Albanesi, Italy*; 2. *Geriatric Unit, Department of Internal Medicine and Geriatrics, University of Palermo, Palermo, Italy*)

Introduction: It is widely known that Alzheimer’s disease is burdened with strong prejudices with negative connotations. This

may contribute to increase patient’s isolation and marginalization, and to render Nursing Homes places of confinement and seclusion. Residents with dementia have trouble in relating with the outside world and in expressing themselves about their own disease, due to their cognitive decline, but also because of marginalization. We used artistic photography as an accessible and effective tool to bring down barriers and encourage residents’ communication. **Objectives:** Artistic photography is the most immediate and accessible form of art for all people. The aim of our social experiment was to help demented residents to become protagonists making their disease known, with the support of health operators, psychologists, and family members by means of a photographic project with the direct participation of residents. The theme we chose for our photographic exhibition and contest concerned jobs and crafts, which the residents once practiced. It is well known, indeed, that persons with Alzheimer’s disease may maintain long-term memory intact – especially procedural memory – for a long time. We attempted to recreate a fragment of patients’ experience in the past and share it with their relatives and with the community surrounding the Nursing Home. Our purpose was to provide a different view of Alzheimer’s disease, without the prejudices usually linked to this condition. Photographers were selected among young talented local amateurs. **Discussion:** After an interview with both, the residents and their relatives, we chose 15 jobs to be presented in photographs: teacher, shoemaker, bank clerk, carpenter, soldier, barber, pianist, drawer, tailor, hairdresser, baby-sitter, farmer, handcraft-maker, construction-worker, and housewife. With the help of health operators and family members, we constructed a scenery for each job, reproducing each setting by using objects belonging to the patients and retrieved by their relatives. Forty residents participated in the activity. They were portrayed while trying to recall their own craft. We observed and recorded patients’ feelings and reactions when facing objects retrieved from their past life. The effects emerging from recalling their past occupation was variable and not always associated with positive feelings, probably due to individual choices, other people’s influence and each patient’s view of his/her past life, but also because of the stage and severity of their cognitive decline. At the end of the project, 16 photographs were selected among 500 and used for a public photographic and sceneries exhibition during Christmas holidays, which was visited and appreciated by a large number of persons among the residents’ relatives, and the communities neighboring the Nursing Home. **Conclusions:** The main achievement of this project was not only the success of a photographic and cultural event, but also the endowment of an occasion for social and individual growth. Through this exhibition, we have tried to break down the barriers of prejudice that isolate persons living in Nursing Homes, by giving them a chance to express themselves and opening to the outside world. In so doing, the Nursing Home became an aggregation instrument for the whole community.

P64- ASSESSMENT OF GLYCEMIC CONTROL IN LONG TERM FACILITY INSULIN-TREATED RESIDENTS. C. Oliver, E. Lesclide, M. Grino, Y. Trardi, F. Retornaz (Centre Gériatologique Départemental, Marseille, France)

Background: The prevalence of diabetes increases with aging and reaches 14.5-26.7 % in nursing home dependent older residents. Diabetes control may be difficult in this population, especially under insulin-treatment with an increased risk of severe hypoglycemia and there is now a consensus to target HbA1c up to 8.0-9.0 % at less stringent values than in middle-aged adults in order to avoid the risk of hypoglycemia. up to 8.0-8.5 %. However, the quantification and consequences of hyperglycemic peaks have not been deeply investigated. Our objective is to further analyze the characteristics of

glucose control in a group of insulin-treated residents and identify the factors involved in poor glycemic control. **Methods:** Insulin treatment, geriatric assessment, capillary glucose monitoring and HbA1c were collected from medical charts of 72 southern France nursing home residents during a 1-2 month period. Glycemic control was assessed using the High Blood Glucose Index (HBGI) or the analysis of blood glucose frequency distribution. Hypoglycemia episodes were identified by medical or biological records. **Results:** Glucose control was tight in 25 % (HbA1c 6.33%) and in fair in 25 % (HbA1c 6.33%) of the residents. Chronic exposure to hyperglycemia was observed in 50 % of the residents/ severe in 26.4 % (HbA1c 8.16%) and moderate in 23.6 % (HbA1c 9.08%). Hypoglycemia was noticed in 8/72 (11.1 %) in all categories of glycemic control and all HbA1c levels. In chronic hyperglycemia, the rate of blood glucose higher than 250 mg/dL reached 42.4 ± 3.5 % including 8.8 ± 2.1 % 8.8 % higher than 350 mg/dL. Poor glycemic control was positively associated with food variations and statin treatment and correlated negatively with stay length. Diabetes control was improved in a subgroup of residents by changes in treatment. **Conclusion:** Poor glucose control has been observed in half insulin-treated nursing home residents. Capillary blood glucose should be used in addition to HbA1c in order to detect and prevent hypoglycemia. Prevention of food variations and improvement of the long term care staff in diabetes management are needed.

P65- PHILOSOPHICAL THEORIES AND POST-SURGERY PAIN ONCE THE MORPHINE IS DEACTIVATED. M.D. Cano Romero (*Université Jean Jaurès, Toulouse, France*)

Backgrounds: This poster presents, in a synthetic way, some of the main findings from two studies that were conducted in the field of empirical bioethics, using the Anderson's Functional Measurement framework (2008). **Objective:** To determine under what conditions nurses find acceptable to relieve post-surgery pain once the morphine pump is deactivated. **Methods:** The sample is made of 75 nurses in France to indicate this acceptability. 54 scenarios are proposed. To those scenarios, we have added 2 groups, 9 on which the surgical intervention has not been successful, and 9 where a non opiate analgesic (paracetamol) has been delivered. Several factors can be considered to explain the reasons why a nurse decide to change pain treatment and even not deliver it if the nurse consider risks are present: level of request persistence to help the suffering patient (1 time, 3 times, 6 times); pain level expressed by the patient (3/10, 6/10, 9/10); the age of the patient (elderly people, adult) and finally, the risk level (very risky, somewhat risky, not risky). The importance and interactions of each factor were determined, at the group level, by performing analyses of variance and constructing graphs. **Results :** A cluster analysis revealed three basic philosophies regarding acceptability of post-surgery pain relieve . For most of the nurses, post-surgery pain was conditioned on two factors : risk and pain levels pain in a way that it is acceptable for a patient to wait when risk is high and the pain level is low. For a second group of nurses it is moderately acceptable to relieve pain in the cases when the risk is high but the pain level is also high or moderate, and for the last group of nurses the acceptability was strictly conditioned to the patient help request. In this case, when the patient requests help, the nurse has to give it to him. The age factor is not significant. Le factor âge non have significatifs effects. **Conclusions :** the majority of nurses judged, that the acceptability of post-surgery high pain relieve depends on the circumstances and, in particular the risk for the patient. Most of nurses follow the Hans Jonas' precaution principle, that invite the person to meditate about the consequences of the usage of opiates derivatives; other group of nurses facing difficulties to find a decision criteria,

think that pain relieve is a must in any circumstance (Kant concept). To end, another group of nurses do not consider only the risk level as primary decision criteria but also the patient pain level (Aristotle philosophy).

P66- RISK FACTORS FOR MORTALITY IN A SAMPLE OF NURSING HOME RESIDENTS. R. Scalisi¹, B. Bennardo¹, A. Mucaria¹ , L.J. Dominguez², M. Barbagallo² (*1. Residenza Sanitaria Assistenziale (Nursing Home) Karol, Villabate, Palermo, Italy; 2. Geriatric Unit, Department of Internal Medicine and Geriatrics, University of Palermo, Palermo, Italy*)

Backgrounds: Malnutrition is highly prevalent in geriatric populations, particularly in persons living in Nursing Homes (NH). Inadequate nutrition is one of the main risk factors for the onset of frailty and may contribute to the subsequent development of disability and mortality among NH residents. An optimal nutritional status and, wherever necessary, supplementation with macronutrients and micronutrients, may reduce the risk of mortality. Dementia is also prevalent among NH residents. The aim of the present study was to evaluate the relationship between mortality, and several risk factors and clinical characteristics of NH residents, including disability, nutritional status, and cognitive decline in a sample of NH residents in Palermo (Italy). **Methods:** This in an observational prospective study. Ninety-four residents (53 women and 41 men) living in the NH "Karol Residenza Sanitaria Assistenziale" from Palermo were recruited for the study. The age range of the NH residents was between 58 and 96 years old. We included in the analyses demographic and anthropometric parameters (age, sex, body weight at baseline and during stay in NH, body mass index [BMI]), disability (ADL, IADL), cognitive and depression (MMSE, GDS), n of drugs used, multimorbidity (CIRS), laboratory parameters (serum albumin, hemoglobin, triglycerides), anorexia, and mortality during stay in NH. **Results:** The mean age was 80 ± 8.4 years, mean ADL was 1.7 ± 1.83 (69% with ADL 0-2), and mean IADL was 0.55 ± 1.41 (91.4% with IADL 0-2). The prevalence of patients with MMSE score lower than 10 or not administrable was 65.9%. Anorexia was present in 27.6% of residents and 45.7% had lost over 3 Kg of body weight in six months. In univariate analysis, parameters significantly associated with mortality were MMSE <10, ADL, albumin, and weight loss ($p < 0.05$ for all). In multivariate analyses after adjustments for age, sex, BMI and the significant parameters in the univariate analyses, the statistical significance remained for male sex and body weight loss ($p < 0.05$). **Conclusions:** The results of the present study confirm that patients affected by serious cognitive impairment, poor nutritional status, or by serious functional impairment have an increased risk of death. It is essential to determine which factors contribute to mortality risk in order to activate preventive and protective measures and to improve planning for resources. The main factor associated with mortality after adjustment for relevant confounders was weight loss, underscoring the key role of continuous evaluation and management of poor nutrition as a possible modifier of mortality. The results of the present study suggest that it is key to set appropriate nutritional interventions in NH patients, particularly those with disability and cognitive decline. Early recognition and treatment of malnutrition or risk of malnutrition are important preventive measures to increase the quality of care, quality of life, and mortality risk in NH residents..

P67- CARDIOVASCULAR SECONDARY PREVENTION BY STATIN IN SOUTHERN FRENCH NURSING HOME.

C. Oliver, E. Gremeaux, M. Grino, C. Molines, F. Retornaz (*Centre G rontologique D partemental, Marseille, France*)

Introduction: Atherosclerotic cardiovascular diseases are the major (63 %) cause of death in nursing home residents. Thus, efforts to reduce their incidence, recurrence and complications are important in such patients. There has been some controversy on the influence of cholesterol on atherosclerotic complications and statin usefulness in this population. Our objective was to examine the prevalence of blood lipid monitoring and statin use in secondary prevention of residents in southern French nursing homes for dependent elderly people. **Methods:** In this observational study, we have included 965 residents (272 men and 693 women) in 12 southern French nursing homes. Coronary heart disease, ischemic stroke, peripheral artery disease or diabetes, blood lipid monitoring, LDL-C levels, statin use and geriatric assessment were collected in medical charts. **Result:** 410 residents with atherosclerotic vascular diseases or diabetes were identified among the population of 965 residents. They were separated into 138 men (mean age: 82.8 ± 9.7 years) and 272 women (mean age: 87.7 ± 6.9 years). Blood lipid was measured in 195 residents and lipid-lowering drugs were given to 106 (statin in 101). The rate of statin use was significantly reduced with increasing age and dependence severity. One third of residents under statin were not monitored for blood lipid. **Conclusion:** Blood lipid monitoring and statin use were subnormal in nursing home residents under cardiovascular secondary prevention. There is a need for prospective studies in this population and precise recommendations taking into account geriatric assessment criteria.

P68- MULTIDISCIPLINARY INTEGRATED CARE OF COPD FOR PATIENTS WITH KORSAKOFF SYNDROME IN A LONG-TERM CARE FACILITY; PROJECT DESIGN.

A. Bruin¹, M. Broekhuis¹, L. van Dusseldorp¹, S. van Egmond¹, J. Fontein¹, I. Gerritzen^{1,3}, M. Milder¹, E. Verschuur^{1,2} (*1. Atlant Care Group, Nursing Home Markenhof, Beekbergen, the Netherlands; 2. HAN University of Applied Sciences, Nijmegen, the Netherlands; 3. EMGO Institute for Health and Care Research, and Department of General Practice and Elderly Care Medicine, VU University Medical Center, Amsterdam, the Netherlands*)

Background: Korsakoff syndrome (KS) is the chronic phase resulting from an acute Wernicke encephalopathy (WE) phase. WE usually occurs in alcoholics and is caused by thiamine deficiency due to associating malnutrition. KS is characterized by severe deficits in long-term explicit memory and is often associated with confabulation. Commonly, executive functioning is also impaired. There are indications that behavioral symptoms and impaired awareness are important features of KS. Next to these problems patients have often somatic and psychiatric comorbidity. In particular, many patients suffer from COPD due to excessive smoking. Atlant Care group offers multidisciplinary care to 138 KS patients residing in 5 Skilled Nursing Facilities (SNF). Ninety per cent of these patients smoke, and the prevalence of COPD is estimated at 23-30%. COPD is also associated with impairments in executive functioning and factors such as diet and sleep. Integrated care (i.e. medical treatment; decreasing smoking; sufficient physical activity; healthy diet) seems essential in treating COPD. However, little is known about these aspects in KS patients. Preliminary exploration of our current practice showed uncertainty about optimal care and treatment for KS patients with COPD. Four research themes emerged: 1) Not all patients are screened for COPD.

Therefore, they are at risk of under diagnosis and under treatment. 2) Atlants' smoking policy allows patients to smoke in restricted areas within the SNF, and professional caregivers have insufficient means or skills to support patients in decreasing or stop smoking. 3) Lack of clarity whether KS patients with COPD make sufficiently use of the physical activities offered by physiotherapists and activity coaches. Also, professionals caregivers seem insufficiently aware of their part in encouraging physical activities in patients, and using 'energy management' interventions offered by occupational specialists. 4) No specific 'healthy diet' policy combined with personalized physical activities. In order to meet these research themes Atlant Care Group is preparing a multidisciplinary project to create optimal integrated care and treatment, aimed at improving quality of life of KS patients with COPD. **Methods:** One overall project team and 4 work groups, one for each theme; 1) Medical treatment; 2) Smoking; 3) Physical activity; 4) Healthy diet. During 2016 - 2017 each work group will identify the current and ideal daily practice, resulting in a plan of action and study protocols. **Results:** Intended results: 1) Multidisciplinary protocol 'Integrated care of COPD for KS patients ; i.e., medical treatment; nursing care, physical activity program, healthy diet program. 2) Guideline 'Supporting KS patients to decrease or stop smoking' for professional caregivers. 3) Education program for professional caregivers; e.g. knowledge, motivational skills and supervision. 4) Optimized 'non-smoking' policy. 5) Future research projects. **Discussion:** A major challenge is the influence of the characteristics and impairments in executive functioning of KS patients with COPD. Other challenges are the skills of the professional caregivers in supporting clients in decreasing smoking and increasing physical activities. Ethical and legal aspects are other issues to consider.

P69- FAMILY AND RESIDENT INVOLVEMENT IN HEALTHCARE TEAM DECISION-MAKING IN LONG-TERM CARE.

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Background: Ensuring meaningful engagement of nursing home residents and their family members in resident care decisions remains a central concern in the provision of quality of care. Residents are vulnerable to being inappropriately excluded from health care decisions due to factors such as frailty, advanced age, and cognitive impairment. While family member participation in decision-making is part of the standard of care in Canadian nursing homes, their level of involvement is inconsistent and variable, and they are often unclear about their role and expectations. Shared decision-making fosters collaborative relationships toward the goal of making optimal care decisions and improving the quality of individualized care. Shared decision-making involves collaboration of health care providers with patients and their family members during the health decision-making process. Surprisingly, interventions for improving the adoption of shared decision-making have been largely untested in long-term care settings. This qualitative pilot study provides the foundation for intervention development and testing. The purpose of this study was to (1) explore the perceptions of residents, their primary family member (authorized decision-maker), and the healthcare team about collaborating when making decisions concerning resident care; and (2) refine our participant recruitment procedures. **Methods:** We conducted seven face-to-face individual interviews with residents with mild-moderate cognitive impairment, their primary family member,

and staff (nurses, healthcare aides) in one nursing home in Toronto, Canada. Data was analyzed using qualitative content and thematic analysis. **Results:** A key finding was that while family perceived their engagement in healthcare team decision-making as ongoing, staff perceived family involvement as reactive (e.g., to a particular concern). Findings from resident interviews indicated that they largely rely on their primary family member for making decisions on their behalf. Though interviews were scheduled with staff and family members for 30-45 minutes, they typically lasted 20-30 minutes. Interviewing residents with cognitive impairment requires sensitivity to the particularities of the resident which draws on their personal histories that are shared during the interview. **Conclusion:** Preliminary findings suggest that proactive strategies can be implemented to develop meaningful connections with family members and residents on admission to the nursing home. Such strategies may include a contract outlining family and resident preferred level of engagement in decision-making, and/or their involvement in monthly team huddles.

P70- DEVELOPING A NEW TOOL TO MEASURE QUALITY OF SERVICE IN NURSING HOMES IN GUADALAJARA, MÉXICO. M. Nuñez¹, F. Javier¹, C. González, E. Guadalupe², A. Merino², E. Dolores³ (1. MSc Candidate Master in Gerontology at Guadalajara University, Guadalajara, México; 2. MSc Quality Management of Health Services, Associate Professor at Guadalajara University, Guadalajara, México; 3. Associate Professor, Master in Gerontology Coordinator at Guadalajara University, Guadalajara, México)

Background: The lack of laws and regulations for nursing homes in México is not a new problem; through time, authors have made the effort to measure objectively the quality of gerontological services in these sort of institutions. In Jalisco state specifically, Arias (1989), brought to one of the first attempts to know the quality of the services to which the elderly are exposed. But there is a problem: quality has only been studied by structure, leaving behind process and results. Now, thirty years later, there is still not a reliable instrument for nursing homes to ensure a minimum of quality of institutional service. **Methods:** Comparative study conformed by two phases. The first phase is the Arias study scale, which will be taken as primary reference, had the goal to know the gender of the population, financing, years in operation, number of residents and the number of services offered in each institution, all of these based in structure. In second phase, a new sample of nursing homes will be evaluated today to develop a new tool to objectively measure the quality of service in nursing homes in México, based in Donabedian's theory of structure, process and results, adding up indicators so far not taken into consideration, to have hole and better view of quality. **Results:** For the first phase, 66 nursing homes were evaluated in Jalisco, 65% of these manifested that the infrastructure was not designed to follow the official statutes of the local law or any international recommendations. In a ratio 3 to 1, is notable a lack of planification and gerontological services program. The human resources in institutions with private financing have no especial qualification or gerontological training to manage with the elderly. **Conclusions:** Many studies have demonstrated that the institutionalized elderly have a several number of necessities, and these should be covered by the nursing home through efficient organization and planification. Never the less, in México by previous studies, it has been shown that nursing homes have a low quality of gerontological services, thus the development of a new tool is necessary in order to improve, standardize and ensure a minimum of quality in mexican nursing homes. Arias, E. D. & Aguilar, M. E. (1989). Servicios a Largo Plazo en Ancianos del Estado de Jalisco, México. Instituto Regional de Investigación en Salud

Pública. Universidad de Guadalajara..

P71- KEY ELEMENTS OF MALNUTRITION IN OLDER NURSING HOME RESIDENTS. L.M. Donini¹, A. Rosano², A. Molfino³, E. Poggiogalle¹, A. Lenzi¹, F. Rossi Fanelli³, M. Muscaritoli³ (1. Department of Experimental Medicine - Medical Pathophysiology, Food Science and Endocrinology Section, Sapienza University of Rome, Rome, Italy; 2. ISFOL, Department of Employment and Social Policies, Rome, Italy; 3. Department of Clinical Medicine, Sapienza University, Rome, Italy)

Malnutrition is very frequent in institutionalised older adults and its prevalence may account for up to 90% in nursing home residents. The pathophysiology of age-related malnutrition is complex and multifactorial. The aim of the present study was to verify which of the components of a multidimensional evaluation may be considered key elements of malnutrition in a population of institutionalized older adults. **Methods:** A total of 246 subjects, 164 women and 82 men (aged 82.3±9 and 76.5±11 years old, respectively) were enrolled from nursing homes in the Latium Region of Italy. Recruited subjects underwent a multidimensional geriatric evaluation assessing clinical status and comorbidity [Cumulative Illness Rating Scale (CIRS)], cognitive status [Mini Mental State Evaluation (MMSE)], functional status [Activities of Daily living (ADL) and Short Physical Performance Battery (SPPB)], depression [Geriatric Depression Scale (GDS)]. Nutritional evaluation was performed through administration of Mini Nutritional Assessment (MNA). **Results:** According with MNA test score, 20.7% of the patients were classified as malnourished, whereas 58.2% were at risk of malnutrition. In subjects at risk of malnutrition or malnourished comorbidity index was higher (2.47±1.55 vs. 2.02±1.49; p=0.04) and a high severity index (> 1.5) was more prevalent (49.7 vs. 32.7%; p=0.03). ADL score (6.6±3.3 vs. 9.63±2.2; p<0.001) and SPPB score (1.73±2.3 vs. 2.96±2.4; p<0.001) were significantly lower whereas a more severe cognitive impairment, with lower MMSE score (15.47±4.7 vs. 17.21±5; p=0.02), and a higher presence of depression (GDS score 7.4±3.3 vs. 5.1±2.9; p<0.001), were observed in subjects with a worse nutritional status than in individuals with a normal nutritional status. Decline in food intake and weight loss over past three months were more prevalent in subjects at risk of malnutrition or malnourished (51.6 vs. 9.6% and 47.9 vs. 13.5%, respectively; p < 0.001). Prescription of > 3 drugs per day was similar in the two groups while only patients with MNA score < 17 had pressure sores. The risk increased with the number of factors reaching the OR=8.4 (CI: 2.9-24.2) when 3 risk factors were present. **Conclusion:** In the present setting, the risk or the presence of malnutrition, using MNA, was significantly associated with comorbidity, disability, cognitive status, depression, declined food intake and weight loss. The hazard of being malnourished or at risk of malnutrition significantly increases with the number of risk factors independently of the risk factor considered. Keywords: malnutrition, older adults, MNA,

P72- IT IS ACCEPTABLE FOR A NURSE TO RELIEVE PAIN WITH HYPNO-ANALGESIA? M.D. Cano Romero (Université Jean Jaurès, Toulouse, France)

This contribution aims to present the first results of an ongoing research PhD (the ethics of care and acute pain: the application of medical prescriptions) with a comprehensive and praxiological target. **Objective:** Clinically, the hypno-analgesia used in patients with pain becomes now a usual practice. However the question of the training and the ethics of the people practicing it can be discussed. The study goal is to determine under what conditions nurses accept to use hypno-

analgesia. **Method:** Based on the Functional Model of cognition from Norman Anderson (2008), 40 nurses reported through 48 cards their reasoning face to pain relief induced by hypno-analgesia care. The cards contains a combination of four factors: the patient's age (10, 21, 45 and 82 years), expression of pain degree (between 4 and 7/10, between 2 and 5/10 and between 6 and 9 to 10), the proposal medication and / or hypno-analgesia and the training of the hypnotist (holding an interuniversity Diploma or trained in a private institution specializing in hypnosis but not recognized by the state). **Results:** Variance analysis indicate that for most nurses pain is unacceptable and then they offer the patient a hypno-analgesia treatment that is judged more acceptable than doing nothing. **Conclusions:** These results show different positions for nurses in the type of formation of the hypnotist.

P73- INNOVATION TO ENHANCE HEALTH IN CARE HOMES : A RAPID REVIEW OF THE EVIDENCE. B. Hanratty¹, D. Craig¹, K. Spilsbury², P. Wilson³, K. Brittain¹, J. Vines⁴, S. Robalino¹, F. Beyer¹, L. Barron¹, B. Nyakang'o¹ (1. *Institute of Health and Society, Newcastle University, UK*; 2. *School of Healthcare, University of Leeds, UK*; 3. *Manchester Business School, University of Manchester, UK*; 4. *School of Computing Science, Newcastle University, UK*)

Background: Health and social care services are facing new and complex demands from an ageing population. The English Department of Health has selected 50 different areas in England (vanguard sites) to take a lead on new ways of working to meet changing patient needs. Six of these vanguard sites have been funded to look at how to improve health in care homes. At all the vanguard sites, there is an emphasis on how services can work together, responding to local needs, and preventing rather than treating illness. Delivering high quality care for older people in care homes is particularly important, as residents are some of the most complex, potentially vulnerable patients in the National Health Service. But bringing services together to produce the best outcomes for residents is difficult in this setting. The funding of care homes, resident care and visiting services are a mixture of public and private. A single resident may receive care from many different organisations, all with different priorities and ways of working. Communication between the different services that provide care for residents is not always good. High staff turnover in care homes does not make it easy for homes to build relationships with health and social care organisations. Many homes are using technology to help with resident care, or communicate with the health service, but which aspects of technology are good for residents' health and wellbeing is not clear. To ensure that the vanguard programme can build on what is already known, the National Institute for Health Research has commissioned summaries of the research evidence. The aim of this study is to identify and synthesise evidence underpinning new models of care to enhance health in care homes. The focus is on four key areas: technology, workforce, communication and engagement, and evaluation. **Objectives:** 1) To determine the potential uses, benefits and challenges of technology in care homes, and for enhancing communication between care homes and partner organisation; 2) To identify flexible uses of the nursing and support workforce and innovative ways of working to benefit resident care; 3) To identify and critically describe the key characteristics and benefits of effective engagement between care homes, communities and other health related organisations, including barriers and facilitators to relationship initiation and maintenance; 4) To summarise existing evidence on approaches to evaluation of new models of care in care homes, including assessment of the quality of care received by residents. **Methods:** Four linked rapid critical reviews of the available

evidence are underway, using systematic, transparent and well established methods. Systematic searches of health, social care and technology related databases are being employed to identify English language publications from 2000 to 2016. Citation searching, reference list checking, expert and stakeholder recommendations will identify additional and forthcoming evidence, including reports and guidelines. Narrative and quantitative syntheses will be produced where data are available. **Conclusions:** This work is ongoing, generating evidence for innovation in four areas of particular importance to care homes It will provide a concise overview of the evidence underpinning innovative health and social care, highlighting the potential barriers and enablers to change.

P74- THE VOICES OF ELDERLY AFRICAN-AMERICAN NURSING HOME RESIDENTS: A PHENOMENOLOGICAL STUDY. D. Onolemhemen, M. Knowles (Wayne State University School of Social Work, Detroit, Michigan USA)

Background: Americans are growing older and the number of African-Americans residing in nursing homes is on the rise. For example, in the City of Detroit there are 87,759 citizens aged 65 or older, representing 10% of the population. Approximately 81.1% of these elderly are African-Americans (Institute of Gerontology Center, 2002). The most recent needs assessment found that older adults in Detroit are more likely than a comparative national sample to have "limited education, low incomes, live alone, and be unemployed" (Institute of Gerontology Center, 2002, p.1). The elderly Black population has been shown to be underrepresented in the long-term care setting nationally (Douglass et al., 1988). According to Davis and Waites (2008) this underrepresentation of African-Americans in most urban areas is due to factors such as misconceptions of nursing home facilities and cultural differences in the willingness to institutionalize older persons. However, this trend has begun to change and it is anticipated that African-Americans will enter nursing homes in large numbers in the future, how culturally and socially adequate are these institutions in providing the necessary services in an environment that is beneficial to this population? What needs must be addressed in order to make the lives of African-American seniors residing in these facilities meaningful? This study investigates the socio-cultural and psychological needs of this population. **Methods:** The research site is a nursing home located in the inner-city of Detroit, Michigan. It is a 124-bed. We used the phenomenological method to examine the lived experiences of African- American nursing home residents in Detroit. The lived experience refers to the way that a person experiences and understands his or her world as real and meaningful. Phenomenologists focus on describing what all participants have in common as they experience a phenomenon. The basic purpose of phenomenology is to reduce the phenomena of individual experiences into a description of a universal essence (Creswell, 2007). According to Englander (2012), the phenomenological approach can achieve representativeness and generalizability from a small number of research participants, specifically between five and twelve participants. We reached saturation with five African-American nursing home participants, which were interviewed. We used in- depth interviews to collect data. The interviews were 45 minutes to an hour long, took place in the residents' rooms and were recorded audibly. **Results:** Emerging Themes from the Interviews. The emerging themes were categorized as: 1. Significant changes in health; 2. Nursing home cost; 3. Lack of caregiver; 4. The nursing home environment; 5. Race and current events; 6. Nursing home vs going home. The participants felt that it was a sudden and significant change in health that lead to their placement in a nursing home. Most were unaware of the costs of the nursing home and worried about money. Participants expressed the

view that, although they had relatives, there was no one to take care of them therefore they had to make the decisions for their care in the nursing home. The respondents had varied opinions about the nursing home environment. Some felt that the environment was clean and the staff efficient but others didn't like certain aspects of the nursing home...such as the food! They all believed that the nursing home was temporary and they would be returning home. The racial politics of America played a significant role in their lives. Most has grown up in the South and experienced prejudice and discrimination based on their race. Several reported having traumatic experiences which followed them throughout their adulthood and into old age. They all shared a common pride that Barack Obama is president. **Conclusion:** Public policy makers must address the question of how to adequately accommodate the needs of large number of African Americans who will reside in nursing homes. Most particularly in the urban areas of American where there is a shortage of long-term facilities. Based on this exploratory study's findings, the lives of African-Americans who reside in nursing homes would be more meaningful if special attention were given to their cultural needs by social workers.

P75- 3-MONTH OUTCOME OF A PAIN ASSESSMENT PROCEDURE IN NURSING HOME RESIDENTS WITH DEMENTIA. J. van Kooten, M. Smalbrugge, J. van der Wouden, M. Stek, C. Hertogh (*the Netherlands*)

Objectives: To describe the course of pain and pain management strategies following a guideline based pain assessment procedure in long-term care residents with dementia. **Design:** prospective observational study between May 2014 and March 2016. **Setting:** Dutch Nursing homes (10). **Measurements:** Pain observations of residents with dementia and review of their medical records and pharmacist' files three months following the initial pain assessment procedure. This guideline-based assessment procedure included a pain observation with the MOBID-2 Pain Scale (range 0-10), a review of the medical record and pharmacist' files, and a physical examination when MOBID-2 score ≥ 3 . After this assessment the results were presented to the attending physician, and when a resident was identified as having pain (MOBID-2 score ≥ 3) a written treatment advice, which could be both non-pharmacological as well as pharmacological, was given to the attending physician. **Results:** We obtained follow-up data of 64 (78.6%) of the 84 residents with pain at the initial assessment. A report with the advice to change the current treatment strategy was provided in 48 cases. After three months half of these advices were executed and the mean pain intensity was significantly improved from 4.8 to 3.2 (95% CI 0.95 – 2.17,

$p=0.00$), while the use of analgesic drugs was not significantly increased at follow-up. The proportion of residents with persistent pain was 57.8%. **Conclusions:** We found a significant difference in the mean pain intensity score between baseline and follow-up. As pain persisted frequently in residents, we cannot exclude regression to the mean as explanation for our findings. However, guideline based pain assessment procedure including feedback and a written treatment advice might be helpful in improving pain management in nursing home residents with dementia.

P76- PREVALENCE OF PAIN IN NURSING HOME RESIDENTS: DIFFERENT FOR DEMENTIA STAGE AND DEMENTIA SUBTYPES? J. van Kooten, J.C. van der Wouden, M.L. Stek, M. Smalbrugge, C.M.P.M. Hertogh. (*the Netherlands*)

Background: This study determined and compared pain prevalence, pain type, and its pharmacological treatment in Dutch nursing home residents in relation to dementia subtype and dementia severity. **Design:** Data were collected as part of the PAINdemia study, an observational cross-sectional study conducted between May 2014 and December 2015. **Setting:** nursing homes (10) in the Netherlands. **Participants:** 199 nursing home residents in variable stages of dementia. **Measurements:** Pain was assessed by different methods (i.e. MOBID-2 Pain Scale and self-report scales or PAINAD) and the pain type (nociceptive, neuropathic, or mixed pain) was determined by combining the findings of physical examination with the medical history. **Results:** For the whole sample the prevalence of pain was 43% (95% CI = 36.1-50.1%) using the MOBID-2 Pain Scale. Pain assessment with the MOBID-2 Pain Scale showed that residents with more severe dementia experienced pain more often than those with less severe dementia (26.8% vs. 14.7%). The prevalence of self-reported pain was significantly higher in residents with vascular dementia compared to those with Alzheimer's disease ($p=0.025$) and other dementia subtypes ($p=0.026$). Nociceptive pain was the predominant type of pain (70%) followed by mixed pain (25%). Paracetamol was the most frequently prescribed analgesic (79.6%), and regardless of regularly scheduled analgesics about one third of the residents with pain still suffered from moderate to severe pain. **Conclusion:** This study showed more frequent self-reported pain in residents with vascular dementia, and there was more frequently observed pain with higher pain intensities in residents with very severe dementia. Our findings may reflect the difficulties of optimal pain treatment, and may be seen as possible starting point to improve optimal pain treatment, for example by prescribing antineuropathic drugs as adjuvant analgesics.

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