SYMPOSIA

S1- PROGRAMS DESIGNED TO REDUCE POTENTIALLY AVOIDABLE HOSPITALIZATIONS FROM SKILLED NURSING FACILITIES: OUTCOMES AND LESSONS LEARNED.

J.G. Ouslander *(Florida Atlantic University, Boca Raton, USA)*

Communication 1: **Optimizing Patient Transfers, Impacting Medical Quality, and Improving Symptoms: Transforming Institutional Care: The OPTIMISTIC Program (http://www.optimistic-care.org),** K. Unroe *(MHA, Indiana University, USA)*

Backgrounds: Skilled nursing facilities (SNFs) in the US are under increasing pressure to reduce potentially avoidable hospitalizations (PAH). **Methods:** The Optimizing Patient Transfers, Impacting Medical Quality, and Improving Symptoms: Transforming Institutional Care (OPTIMISTIC) project is based in Indiana. OPTIMISTIC embeds nurses in the SNFs to support the management of acute changes in condition and promotes facility-wide QI. These nurses are supported by nurse practitioners who work collaboratively with primary care providers. OPTIMISTIC provides both direct care to residents and indirect care, including training for nursing home staff, and has a strong focus on systematic advance care planning. **Results:** Among the 143 SNFs in the CMS project (including the program described herein and six others), there was a 2.2-9.3 percentage point reduction in the probability of all-cause hospitalizations across states and a 1.4-7.2 percentage point reduction in the probability of PAH, and substantial reductions in Medicare expenditures. **Conclusions:** OPTIMISTIC and several other multifaceted programs have been effective in reducing PAH from SNFs. These reductions can result in improved quality of care, decreased morbidity, and reduction in overall costs of SNF care. Several strategies for effective program implementation have been identified that will result in better outcomes as these programs are disseminated nationally and internationally. Widespread dissemination of these evidence-based programs will depend on further investment from government, industry, and health systems.

Communication 2: **The Missouri Quality Initiative for Nursing Homes (MOQI) (http://nursinghomehelp.org/moqi.html),** M. Rantz *(University of Missouri, Columbia, USA)*

Background: Skilled nursing facilities (SNFs) in the US are under increasing pressure to reduce potentially avoidable hospitalizations (PAH). **Methods:** The Missouri Quality Initiative (MOQI) embeds advanced practice nurses (APRNs) in each facility, full time, to provide direct services to residents while also mentoring, role-modeling, and educating nursing staff about early symptom/illness recognition, assessment, and management of health conditions commonly affecting long-stay residents. APRNs are expected to reduce polypharmacy, help staff improve care delivery with evidence-based practices. A support team for the APRNs includes a nurse coach for INTERACT implementation and sustainability across the facilities; a masters-prepared social worker to assist with end of life education and individualized coaching to improve end of life care and care transitions; and a coach for the use of technology for secure communication within and among health care facilities and providers to improve technology use in all facilities. **Results:** Among the 143 SNFs in the CMS project (including the program described herein and six others), there was a 2.2-9.3 percentage point reduction in the probability of all-cause hospitalizations across states and a 1.4-7.2 percentage point reduction in the probability of PAH, and substantial reductions in Medicare expenditures. **Conclusions:** MOQI and several other multifaceted programs have been effective in reducing PAH from SNFs. These reductions can result in improved quality of care, decreased morbidity, and reduction in overall costs of SNF care.

Communication 3: **Reduce Avoidable Hospitalizations Using Evidence-Based Intervention in Nursing Facilities: The RAVEN Program (https://raven.upmc.com),** S. Handler *(University of Pittsburgh, Pittsburgh, Pennsylvania, USA)*

Background: Skilled nursing facilities (SNFs) in the US are under increasing pressure to reduce potentially avoidable hospitalizations (PAH). **Methods:** The Reduce AVoidable hospitalizations using Evidence-based interventions for Nursing facilities in western Pennsylvania (RAVEN) project is based in 15 partner SNFs in Western Pennsylvania. RAVEN is a multicomponent intervention that embeds nurse practitioners and enhanced nurses in each of the facilities primarily to manage acute changes of condition. The RAVEN team manages acute changes of condition during the day face-to-face, while the nurse practitioners manage acute changes of condition after-hours and weekends using telemedicine. **Results:** Among the 143 SNFs in the CMS project (including the program described herein and six others), there was a 2.2-9.3 percentage point reduction in the probability of all-cause hospitalizations across states and a 1.4-7.2 percentage point reduction in the probability of PAH, and substantial reductions in Medicare expenditures. **Conclusions:** RAVEN and several other multifaceted programs have been effective in reducing PAH from SNFs. These reductions can result in improved quality of care, decreased morbidity, and reduction in overall costs of SNF care.

S2- THE MISSOURI QUALITY INITIATIVE FOR NURSING HOMES (MOQI) REDUCES UNNECESSARY HOSPITALIZATIONS.

M. Rantz *(University of Missouri, Columbia, USA)*

Communication 1: **Key roles of Medical Professionals and Support Staff in the Reduction of Avoidable Hospitalizations in Nursing Facilities.** C. Crecelius *(Medical Director of the MOQI project, USA)*

Background: Goals of the Missouri Quality Initiative (MOQI) were to reduce the frequency of avoidable hospital admissions and readmission; improve resident health outcomes; improve the process of transitioning between inpatient hospitals and nursing facilities; and reduce overall healthcare spending without restricting access to care or choice of providers. **Methods:** Advanced Practice Registered Nurses (APRNs) were embedded in each facility on a full time basis. A support team for the APRNs includes a nurse coach for INTERACT implementation and sustainability across the facilities; a masters-prepared social worker to assist with end of life education and individualized coaching to improve end of life care education and care transitions. A project medical director who assisted in physician and APRN education and a coach for the use of technology for secure communication within and among health care facilities and providers to improve technology use in all facilities were also a part of the support team. **Results:** The MOQI The MOQI Initiative achieved achieved a 40% reduction in all-cause and 57.7% reduction in potentially avoidable hospitalizations (p=0.001); all cause ED visits were reduced 54.1% and potentially avoidable ED visits reduced 65.3% (p=0.001). **Conclusions:** The MOQI program has been effective in reducing potentially avoidable hospitalizations from nursing facilities. With the utilization of APRNs in nursing facilities,

improved quality of care and reduction in overall costs of nursing care can result.

Communication 2: **Description of Interventions to Reduce Avoidable Hospitalizations in Nursing Facilities.** C. Galambos, *(University of Missouri, Columbia, USA)*

Background: The Missouri Quality Initiative (MOQI) was one of seven program sites in the United States providing specific interventions unique to each site for the Centers for Medicaid and Medicare Services (CMS) Innovations Center. **Methods:** The MOQI initiative is a prospective, group intervention design that included advanced practice registered nurses (APRN) embedded full-time within each nursing home (NH) with the use of INTERACT. INTERACT is a quality improvement (QI) program that provides SNFs with over 30 tools for: 1) QI activities including tracking hospitalization rates; 2) communication within the SNF and with hospitals; 3) decision support for the evaluation and management of the most common causes of PAH; and 4) advance care planning. **Results:** The MOQI The MOQI Initiative achieved achieved a 40% reduction in all-cause and 57.7% reduction in potentially avoidable hospitalizations (p=0.001); all cause ED visits were reduced 54.1% and potentially avoidable ED visits reduced 65.3% (p=0.001). **Conclusions:** The MOQI program has been effective in reducing potentially avoidable hospitalizations from nursing facilities. With the utilization of APRNs in nursing facilities, improved quality of care and reduction in overall costs of nursing care can result.

Communication 3: **Keys to Success and Outcomes of Reducing Avoidable Hospitalization in Nursing Facilities.** C.M. Murray *(BHSM, RN, NHA, USA)*

Background: The Missouri Quality Initiative (MOQI) was one of seven program sites in the United States providing specific interventions unique to each site for the Centers for Medicaid and Medicare Services (CMS) Innovations Center. As the population of older people explodes in upcoming decades, it is critical to find good solutions to deal with increasing costs of health care. APRNs, working with multidisciplinary support teams, are a good solution to improving care and reducing costs if all nursing home residents have access to APRNs nationwide. **Methods:** Feedback reports for utilization in the Quality Assurance Quality Improvement programs in the facility and follow-up by administrative and clinical professionals. Feedback reports assist in quantifying and utilizing the data for future improvements and has shown effectiveness in reducing potentially avoidable hospitalizations from nursing facilities. **Results:** The MOQI The MOQI Initiative achieved achieved a 40% reduction in all-cause and 57.7% reduction in potentially avoidable hospitalizations (p=0.001); all cause ED visits were reduced 54.1% and potentially avoidable ED visits reduced 65.3% (p=0.001). Medicare expenditures were reduced 33.6% for all-cause and 45.2% in potentially avoidable hospitalizations (p=.001); all cause ED visits were reduced 50.2% and potentially avoidable ED visits reduced 59.7% (p=.001) (Ingber et al., 2017a, pps. ES-12, 95). **Conclusions:** The MOQI program has been effective in reducing potentially avoidable hospitalizations from nursing facilities. With the utilization of APRNs in nursing facilities, improved quality of care and reduction in overall costs of nursing care can result. The strategies and effective program implementation of the MOQI project can result in better outcomes both nationally and internationally.

S3- IMPROVING QUALITY OF LONG-TERM CARE IN NURSING HOMES BY EMBEDDING SCIENTIFIC RESEARCH IN EVERYDAY PRACTICE: THE LIVING LAB OF AGEING AND LONG-TERM CARE.

J.M.G.A. Schols *(Maastricht University, Care and Public Health Research Institute (CAPHRI), Faculty of Health, Medicine and Life Sciences, Department of Family Medicine and Department of Health Services Research, Living Lab on Ageing and Long-Term Care, Maastricht, The Netherlands)*

Structural multidisciplinary collaboration between research, policy, education, and practice is essential to improve quality of long-term care in nursing homes. The living lab of ageing and long-term care provides a model to enhance the embedding of scientific research into every day practice. The living lab is a formal multidisciplinary network consisting of Maastricht University, seven large long-term care organizations and Zuyd University of Applied Sciences, all located in the southern part of the Netherlands. We strongly believe that key issues to successful research in nursing homes aim to (1) address the right clinical and policy questions; (2) develop, evaluate, and implement evidence-based innovations; and (3) adequately educate nursing home staff and increase levels of expertise. This symposium presents three illustrative research projects that focus on addressing the right questions, the development of an intervention, and increasing levels of expertise.

Communication 1: **Overview of innovations in institutionalised long-term care: a descriptive cross-sectional study.** M.H.C. Bleijlevens *(Maastricht University, Care and Public Health Research Institute (CAPHRI), Faculty of Health, Medicine and Life Sciences, Department of Health Services Research, Living Lab on Ageing and Long-Term Care, Maastricht, The Netherlands)*

Backgrounds: Due to increasing demands in long-term care for older people and a decrease in workforce availability the sustainability and quality of long-term care for older people are challenged. To address these challenges, institutionalised long-term care (ILTC) organizations are forced to innovate. **Objectives:** The aim of this study is to provide an overview of innovations ILTC organizations are working on and to assess the self-reported extent of effectiveness. Methods: A descriptive cross-sectional study was conducted using semistructured interviews with chief executive officers, managers, and staff members of the ILTC organizations. In total, 20 ILTC organizations in the southern part of The Netherlands were invited to participate in the study. Based on the interview data, all innovations were described in a standardized form and subsequently checked by the participants. All innovations were clustered into product, process, organizational, and marketing innovations. **Results:** In total, 16 ILTC organizations participated in the study. Overall, 148 innovations were identified; The majority of innovations were product in- novations (n=61), followed by organizational innovations (n=53), and process innovations (n=23). In addition, 11 other innovations incorporating characteristics of different types of innovations were detected. Little evidence about the effectiveness of the innovations was reported. **Conclusions:** This study shows that a large number and a broad variety of innovations have been implemented or are currently being developed in ILTC organizations. However, according to the organizations, there is relatively little (scientific) evidence confirming the effectiveness of these innovations. More research is needed to evaluate the effects of the innovations and to indicate whether they provide real solutions to future challenges.

Communication 2: **Developing an intervention to improve communication in nursing home residents: a mixed methods study.** S.M.G. Zwakhalen *(Maastricht University, Care and Public Health Research Institute (CAPHRI), Faculty of Health, Medicine and Life Sciences, Department of Health Services Research, Living Lab on Ageing and Long-Term Care, Maastricht, The Netherlands)*

Backgrounds: Although communication is one of the essentials of nursing care, nurses often report communication difficulties in caring for people with dementia (PwD). Evidence-based interventions to improve communication during daily nursing care are lacking. **Objectives:** This study aims to develop a nursing intervention with the aim to improve communication between nurses and PWD. **Methods:** Principles of co-creation were used to develop a communication intervention. First, ideal communication was defined (targeted behaviour) based on a systematic review, additional (scientific) literature, and consultation of experts. Second, to understand their current behaviour and to identify facilitators and barriers for the targeted behaviour, two focus group meetings with relevant stakeholders (e.g. nurses) were organized and observations of nurses and PwD during daily were conducted. Finally, intervention functions and content was discussed in a third meeting. **Results:** Reviewing the literature and consulting experts demonstrated that ideal communication should be person-centred. Furthermore, next to verbal communication, attention should be paid to non-verbal communication, including the use of pictograms, objects, and touch. Additionally, the environment has to be recognisable and comprehensible for PwD. Focus group meetings and observations showed that behaviour of nurses is often characterised by a task-oriented instead of person-centred approach. Furthermore, non-verbal communication (e.g. eye contact) is insufficiently used. Identified facilitators and barriers for the ideal communication relate to nurses' characteristics (e.g. knowledge, awareness, and skills), social influences (e.g. family expectations and team functioning), and other environmental factors (e.g. resources and time). Finally an 11-week communicational intervention was drafted focusing on creating awareness besides education and managerial support. **Conclusion:** As a result a multiple component intervention to improve communication has been developed in co-creation with partners of the living lab. The drafted intervention will be evaluated in the near future.

Communication 3: **The influence of informal caregiving on caregivers' burden and quality of life: a cross- sectional study.** S.F. Metzelthin *(Maastricht University, Care and Public Health Research Institute (CAPHRI), Faculty of Health, Medicine and Life Sciences, Department of Health Services Research, Living Lab on Ageing and Long-Term Care, Maastricht, The Netherlands)*

Backgrounds: Informal caregiving may be experienced as stressful and is associated with adverse health consequences. While quite a lot of research focuses on informal caregiving for community-dwelling older adults, little is known about this topic in institutionalised long-term care (ILTC). Objectives: This study aimed to 1) compare characteristics of informal caregivers and care receivers and caregiver outcomes - at home and in ILTC; 2) study the association between these characteristics and caregiver outcomes; 3) investigate the moderating effect of the setting (at home vs. ILTC) on these associations. **Methods:** In 2016, a cross-sectional study was conducted using the TOPICS-MDS DataSet. A total of 5,197 Dutch dyads were included. Several sociodemographic, health-related and caregiving-related characteristics of care receiver and caregiver and two caregiver outcomes (i.e., subjective burden and quality of life (QoL)) were included in the analyses. **Results:** Caregivers at home delivered significantly more caregiving hours (objective burden) than caregivers in ILTC (19.2 hours vs. 9.0 hours, p<0.001). However, both groups do not differ in their subjective burden (42.2 vs. 40.1, p=0.134, theoretical range 0-100). Caregivers' at home experienced significantly lower QoL (78.9 vs. 82.7, p<0.05, theoretical range 0-100) than caregivers in ILTC. Several care receiver characteristics (i.e., male sex, married/cohabiting, more morbidities/disability, and less self-perceived health/psychological wellbeing) and several caregiver characteristics (i.e., female sex, being younger, living together with the care receiver, more objective burden, less self-perceived health, and more support) were associated with an increase in caregiver burden and a decrease in QoL. Some of these associations were stronger for dyads at home compared to dyads in ILTC. Conclusions: Informal caregiving does not stop with admission to an ILTC facility. Both settings need an informal caregiving policy, which (1) is tailored to the individual characteristics of care receivers and caregivers; (2) pays attention to the identified risk groups; and (3) reduces the negative caregiver outcomes and emphasizes the positive outcomes at the same time.

S4- NEUROPSYCHIATRIC SYMPTOMS (NPS) IN NURSING HOMES, AND THE EFFECT OF CASE CONFERENCES ON NPS. S. Bergh *(Research leader, Center for old age psychiatry research, Innlandet Hospital trust, Norway)*

Communication 1: **The course of anxiety and anxiety symptoms, and the correlates of change in anxiety symptoms in persons with dementia in nursing homes: a follow-up study.** A.R. Goyal[1,2,3], S. Bergh[1,2] K. Engedal[2], M. Kirkevold[3], Ã. Kirkevold[1,2,4] *((1) Centre of Old Age Psychiatry Research, Innlandet Hospital Trust, Ottestad, Norway; (2) Norwegian National Advisory Unit on Aging and Health, Vestfold Hospital Trust, Norway; (3) Department of Nursing Science, Institute of Health and Society, University of Oslo, Norway; (4) Norwegian University of Science and Technology (NTNU) in Gjøvik, Faculty of Health, Care and Nursing, Gjøvik, Norway)*

Background: Knowledge is scarce about the course of anxiety and anxiety symptoms in persons with dementia (PwD) living in nursing homes (NH). **Objectives:** This study aims to describe the course of anxiety and anxiety symptoms, and the correlates of change in anxiety symptoms in PwD in NH. **Methods:** In all, 298 participants with dementia ≥ 65 years from 17 Norwegian NH were assessed with the validated Norwegian version of the Rating Anxiety in Dementia scale (RAID-N). The assessments were made at baseline and follow-up, between August 2014 and September 2016 with a mean of 350 days (SD 12.3) interval. Associations between the change in anxiety symptoms and demographic and clinical characteristics were analyzed with multiple regression models. **Results:** Attrition of 93 participants (31.2%) from baseline to follow-up was due to death. No differences in the mean RAID-N sum scores (t-test, p = 0.367, 95% CI -2.58 to 0.96) or anxiety (RAID-N sum score ≥12) ($\chi 2$ = 0.095) was found between the participants who died and those who were reassessed (N = 205) at follow-up. There was no significant change in the proportion of participants with anxiety, 33.7% at baseline and 31.2% at follow-up (McNemar, p = 0.597). One or more anxiety symptoms were present in 95.1% of the participants at follow-up (93.7% at baseline). The anxiety symptom «worry about cognitive performance» remitted significantly at follow-up (32.2%) from baseline (51.8%) (McNemar test, p = <0.001). «Irritability» was the most frequent, whereas «palpitations», «weating or chills», and â»hyperventilating» were the least frequent anxiety symptoms at both assessments. Participants' higher baseline score of Neuropsychiatric Inventory-Q sub-syndrome affective (beta -0.307, p-value < 0.001) was associated

with improvement, whereas higher baseline score of Neuropsychiatric Inventory-Q sub-syndrome aroused (beta 0.170, p-value 0.028) and more use of antipsychotics (beta 0.203, p-value 0.004) were associated with deterioration in anxiety symptoms at follow-up. **Conclusions:** Anxiety and anxiety symptoms are highly prevalent among PwD in NH. Attention and skills are needed to identify and manage anxiety and anxiety symptoms in this vulnerable population.

Communication 2: **Targeted Interdisciplinary Model for Evaluation and Treatment of Neuropsychiatric Symptoms's a cluster randomised controlled trial.** B. Lichtwarck[1,2], G. Selbaek[1,2,3], Ã. Kirkevold[1,3,4], A.M. Mork Rokstad[3,5], J.Å. Benth[6,7], J.C. Lindstrom[6,7], S. Bergh [1,3] *((1) Centre for Old Age Psychiatric Research, Innlandet Hospital Trust, Ottestad, Norway; (2) Institute of Health and Society, Faculty of Medicine, University of Oslo, Norway; (3) Norwegian National Advisory Unit on Ageing and Health, Tansberg; (4) Department of Health, Care and Nursing, Faculty of medicine NTNU, Gjøvik, Norway; (5) Molde University College, Faculty of Health Sciences and Social Care, Molde, Norway; (6) Institute of Clinical Medicine, Campus Ahus, University of Oslo, Lørenskog, Norway; (7) Research Centre, Akershus University Hospital, Lørenskog, Norway)*

Background: There is conflicting evidence about the effectiveness of nonpharmacological interventions for agitation in dementia. Targeted Interdisciplinary Model for Evaluation and Treatment of Neuropsychiatric Symptoms (TIME) is a biopsychosocial intervention based on the theoretical framework of cognitive behavioural therapy and person-centred care consisting of a comprehensive assessment of the patient with the goal to create, and put into action, a tailored treatment plan. **Objectives:** To determine the effectiveness of TIME for agitation in persons with dementia (PwD) living in nursing home (NH). **Methods:** We conducted a cluster randomised controlled trial in 33 NH in Norway. 229 PwD and a moderate to severe degree of agitation were included. 104 patients in 17 NH and 125 patients in 16 NH were randomised to the intervention group and the control group, respectively. The control group received a brief education-only intervention. The patients were assessed before randomisation (baseline), at eight and 12 weeks. The primary outcome was the between-group difference in change at the agitation/aggression item of the NPI-NH between baseline and eight weeks. Secondary outcomes were the between-group difference in change at the agitation/aggression item of the NPI-NH between baseline and 12 weeks, and the between-group difference in change in other neuropsychiatric symptoms (NPS), quality of life (QoL), and use of psychotropic and analgesic medications between baseline and eight weeks and baseline and 12 weeks. **Results:** 202 patients (88.2%) and 32 NH (97 %) completed the study. A significant between-group difference in reduction of agitation at both eight weeks (1.1; 95% confidence interval, 0.1 to 2.1; P=0.03) and 12 weeks (1.6; 95% confidence interval, 0.6 to 2.7; P=0.002) in favour of the TIME intervention was found. Of the other secondary outcomes, symptoms of delusions at eight weeks, and depression, disinhibition, and QoL at 12 weeks, showed significant between-group differences in favour of the TIME intervention. **Conclusion:** The implementation of TIME resulted in a significant reduction of agitation among PwD in NH. These results should inform training programmes for care staff.

Communication 3: **Effects of a dementia-specific case conference concept on residents challenging behavior and quality of life-a stepped wedged cluster RCT.** D. Holle[1,2], S. Reuther[1,2], D. Trutschel[1], R.M. Widmer[1], M. Roes[1,2], M. Halek[1,2] *((1) German Center for Neurodegenerative Diseases, Witten, Germany; (2) University of Witten/Herdecke, Faculty of Health, Witten, Germany)*

Background: Although several guidelines have been published on alternative approaches to NPS in dementia than prescribing psychoactive drugs, tools are needed that convert the abstract ideas of the guidelines into a method that can be used in practice. The dementia-specific case conference concept WELCOME-IdA was developed for practice as part of the FallDem-study that structures the steps of description, analysis, treatment and evaluation of the treatment of NPS. Objectives: The study aims to investigate whether the use of WELCOME-IdA would lead to a reduction in the prevalence of NPS and a maintenance in QoL compared to a control group. **Methods:** A cluster RCT was undertaken using a stepped-wedge-design to evaluate WELCOME-IdA in 6 nursing homes (NH) in Germany. Each NH should perform at least 16 dementia-specific case conferences during the intervention phase. NPS (NPI-NH) (primary outcome) and QoL (QualiDem) of PwD were measured every 3 months in all 6 NH. A total of 7 assessments took place over 19 months. Outcomes were analyzed using a linear mixed effect model and descriptive statistics. Results: A total of 969 observations took place involving 224 residents (563 controls, 205 interventions, 201 follow-up). Two NH dropped-out during the trial. No significant changes were observed for the mean total score of the NPI-NH and the QualiDem. However, a significant reduction in the prevalence of apathy (-0,20; 95% CL: [-0.39 -0.02], p = 0.031) as a sub-score of the NPI-NH was observed from control to intervention phase and from control to follow up phase (-0.25; 95% CI: [-0,50-0.003]; p = 0.048). Process data indicated that 51 of 96 (53%) of dementia-specific case conferences were realized in which 46 different cases (residents with NPS) were discussed. **Conclusion:** WELCOME-IdA could diminish apathy and retain QoL of PwD, even though solely half of the dementia-specific case conferences were carried out. A subsequent careful analysis of the implementation process will give important insights for future improvements of the implementation strategy of dementia-specific case conferences in NH.

S5- NON-PHARMACOLOGIC INTERVENTIONS FOR PERSONS WITH DEMENTIA IN RESIDENTIAL CARE: STRATEGIES FOR MAKING A DIFFERENCE.

M. Berg-Weger, *(LCSW, Saint Louis University School of Social Work, St. Louis, USA)*

Communication 1: **Non-Pharmacologic Interventions in Residential Settings.** M. Berg-Weger *(LCSW, Saint Louis University, School of Social Work, St. Louis, USA)*

Background: Three non-pharmacologic interventions designed to alleviate stress and behavioral symptoms in persons with dementia will be presented: Reminiscence Therapy, Validation Therapy, and Reality Orientation. While each of these interventions has shown some utility for use with persons with dementia, the evidence for their efficacy is not overwhelmingly strong. However, each has merits in the clinical setting and have served to further our clinical and research knowledge of non-pharmacologic interventions. Focused on helping individuals with dementia to recall past memories, the evidence for Reminiscence Therapy suggests that a weekly group intervention does, in fact, have a small-size effect on cognitive function and a moderate-size effect on depression. A US-based reminiscence therapy intervention, Cardinals Baseball Reminiscence League, will be highlighted. Validation

Therapy emphasizes the individual's personhood and emotions with a goal of reducing stress and behavioral symptoms. As the name suggests, the participant's feelings and emotions are validated through discussion of events and memories. Reality Orientation emphasizes the present using games, puzzles, and calendars.

Communication 2: **Cognitive Stimulation Therapy: Historical Perspective and Guiding Principles.** J. Henderson-Kalb *(OTR/L, Department of Occupational Science and Occupational Therapy Saint Louis University, Saint Louis, USA)*

Background: The presentation will highlight the historical and development aspects of CST, including the principles upon which this non-pharmacologic intervention is based. Developed in the United Kingdom, Cognitive Stimulation Therapy (CST) is a brief, evidence-based, psychosocial group intervention program for persons with mild to moderate dementia focusing on implicit information processing, which was developed following a review of both reality orientation and evaluation of research. Evidence shows CST enhances cognition and improves the well-being of those with a dementia. This group intervention is cost effective and is currently in the UK, the only non-pharmacological intervention recommended to improve cognition. Through the use of pre- and post-measures, evidence from the U.K. and the U.S. provide support for the efficacy of this intervention and will be presented. In the nursing home environment, in particular, CST has been shown to enhance cognition.

Communication 3: **Cognitive Stimulation Therapy: Strategies for Implementation.** J. Lundy *(Perry County Memorial Hospital, Perryville, USA)*

Background: This presentation will include strategies for implementing the intervention specific to the skilled nursing facility setting. Information presented during this time will include an overview of a treatment session, billing options, and logistical materials CST proves to be an effective form of treatment among older adults with mild to moderate dementia. Implications for integration into practice and education in the nursing home setting will be highlighted.

S6- IMPROVING RESIDENT AND PATIENT OUTCOMES THROUGH INTERPROFESSIONAL CLINICAL PROGRAMS. M. Oyola Little *(Saint Louis University Division of Geriatric Medicine, Saint Louis,USA)*

Communication 1: **Residence-based Advanced Illness Management: Consultation team offering aggressive medical management for chronic life-limiting illness and multimorbidities at home regardless of 6-month prognostic status.** M.E. Fox *(Chief Medical Officer Visiting Nurse Association of Greater St. Louis and Clinical Director Advanced Illness Management (AIM) program, Saint Luis, USA)*

The coexistence of age-related physiologic organ changes, lifelong environmental stressors, and multimorbidity place older adults in a vulnerable state, at risk of experiencing geriatric syndromes. Good interprofessional geriatric care, including profession-specific assessments and interventions can help to improve outcomes. The speakers will present three state-of-the-art programs that have been implemented in the Saint Louis area to address geriatric syndromes in older adults across care settings. Residence-based Advanced Illness Management. In the United States, palliative care is comprised of a team-based approach to delivering comfort care to people with complex, life-limiting illnesses. This type of care is often reserved for people in the last stages of illness through hospice services designed for the final 6 months of life. However, palliative care has been shown to reduce healthcare utilization, improve quality of life, and in some instances to extend life when delivered to those with multimorbility and life-threatening illnesses, even if not hospice eligible. For this symposium, we will be sharing our experiences and outcomes of a home-based palliative care interprofessional model.

Communication 2: **Feasibility and outcomes of applying the Medicare Annual Wellness Visits to the Nursing Home resident population.** P. Abele *(Saint Louis University Division of Geriatric Medicine, Saint Louis, USA)*

Medicare Annual Wellness Visits. At St. Louis University, we have developed a Medicare Annual Wellness Visit (AWV) that is targeted at nursing home residents. The Medicare AWV is a no-cost visit for the patient that includes a review of family and medical history, immunizations, blood pressure, height/weight, screening for depression, cognitive impairment, functionality, and a discussion regarding advance directives. In the nursing home, much of this information can be obtained from the MDS 3.0, and also by using the Rapid Geriatric Assessment (RGA). The RGA uses validated screening tools such as the FRAIL for frailty, SARC-F for sarcopenia, SNAQ for anorexia, and RCS for cognitive impairment. Information from this assessment allows nursing home providers and their staff to identify patients in the nursing home who might benefit from further evaluation for treatable causes, interventions such as high protein supplementation or Vitamin D, and specialized programs such as exercise and cognitive stimulation. Screening for depression is done with the PHQ-9 as a part of the MDS 3.0. In addition, we use the recently developed FRAIL-NH scale which has been shown to be an excellent predictor of death, need for hospice, and rapid functional decline. As such, it can be used to recognize nursing home residents who would benefit from hospice and who also might be at high risk for a return to the hospital. For this symposium, we will be sharing our experience of performing Medicare Annual Wellness Visits at St. Louis area nursing homes and will present outcomes for our first two years of visits.

Communication 3: **Reducing inappropriate prescribing in the post-acute and long term care setting through an interprofessional team-based program.** M. Oyola Little *(Saint Louis University Division of Geriatric Medicine, Saint Louis, USA)*

The Reducing Inappropriate Medication Use in the Post-Acute and Long Term Care Setting. Polypharmacy and inappropriate prescribing leads to falls, frailty, adverse reaction, increased healthcare expenditures, and mortality. Programs to reduce polypharmacy have been effective and safe in the long term care setting. Most programs in the literature describe uniprofessional (e.g. pharmacist-led or physician-led) models that target inappropriate medication prescribing for older adults. For this symposium, we describe an interprofessional, patient-centered program that included pharmacists, physicians, nurses, and administrators that led to significant reductions in medication utilization without an increase in adverse events. The focus on the program was to reduce medication use while increasing non-pharmacologic management of common medical and psychosocial issues facing our long term care population.

S7- PHYSICAL ACTIVITY IN NURSING HOMES: THE RELEVANCE, BARRIERS FROM DIFFERENT PERSPECTIVES AND POSSIBLE SOLUTIONS.

S.M.G. Zwakhalen *(Maastricht University, CAPHRI Care and Public Health Research Institute, Department of Health Services Research, Living Lab on Ageing and Long-Term Care, Maastricht The Netherlands)*

Communication 1: **Activities of People with Dementia Living in Nursing Homes and Associations with Quality of Life.** B. de Boer (*Maastricht University, CAPHRI Care and Public Health Research Institute, Department of Health Services Research, Living Lab on Ageing and Long-Term Care, Maastricht The Netherlands)*

Background: Residents of nursing homes spend a substantial part of their days in a lying or sitting position, and are rarely engaged in activities. This can lead to boredom, loneliness and depression. **Methods:** The current study had a longitudinal observational design, including 115 residents; 30 in green care farms, 52 in other small-scale, homelike settings and 29 in regular nursing homes. Ecological momentary assessments of residents' daily life were conducted using the Maastricht Electronic Daily Life Observation tool. Physical activity was observed repeatedly at a baseline measurement and a 6-month follow up. Furthermore, contextual factors such as the type of the activity and the mood of residents were also observed. In total 16.860 observations were carried out (84 per resident at baseline and 72 at follow-up). In addition, quality of life was assessed with the Quality of Life-Alzheimer's Disease scale (Qol-AD). First, the amount of physical activity and whether there were differences between the types of nursing homes with regard to physical activity was investigated. Second, associations between the observations of daily life and quality of life were assessed. **Results:** Overall there was low physical activity at all nursing homes (residents were sitting quietly or lying in 88% of the observations). Stand-alone small scale living facilities had the lowest physical activity (7%). At green care farms residents were engaged in more social/communication related activities; outdoor/nature related activities; domestic activities and recreational activities than at regular nursing home wards. Residents with a higher quality of life were more engaged in active, expressive, and social activities, and had better mood scores. A positive mood was associated with engagement in activities, and doing activities outside. **Conclusion:** The current study shows that more research is needed on how to increase the physical activity of nursing home residents.

Communication 2: **Barriers and Motivators to Organize Physical Activity in Nursing Homes for Older Persons.** I. Bautmans *(Frailty in Ageing research department, Vrije Universiteit Brussel, Brussels, Belgium)*

Background: Factors that hinder or stimulate older adults in long-term care facilities (LTCF) for being physically active are well described, but less is known regarding motivators and barriers among administrators (Admin) and caregivers to organize physical activity (PA) in LTCF. **Methods:** This mixed (qualitative & quantitative) study investigated motivators and barriers that Admin, occupational (OT) and physiotherapists (PT) of Flemish LTCF experience in PA. Also their knowledge regarding the PA guidelines of the WHO was examined. Based on in-depth interviews of 24 ADMINs, 24 PTs and 23 OTs a quantitative survey was generated and completed by 127 ADMINs, 254 PTs and 141 OTs. **Results:** The strongest motivators on the intrapersonal level were improving the physical and psychological wellbeing of LTCF-residents. Social interaction was the key motivator on the interpersonal level. Only 8% of the OTs were familiar with the WHO guidelines, compared to 16% of the PTs and 17% of the ADMINs. Most respondents (OT 71%, PT 71% and ADMIN 70%) believed that the guidelines are useful, but that the implementation of the guidelines is unrealistic (OT 72%, PT 75% and ADMIN 60%). They reported several barriers for the implementation of the guidelines including the belief that the guidelines are not suitable for adults aged 80 and over (OT 47%, PT 80% and ADMIN 80%), lack of staff (OT 50%, PT 54% and ADMIN 54%) and lack of time (OT 60%; PT 61% and ADMIN 51%). **Conclusion:** The knowledge of and vision about the implementation of the WHO guidelines regarding PA is limited among ADMINs, PTs and OTs working in LTCF. Factors on the intrapersonal level, which are modifiable, need to be taken into account when stimulating PA. Besides numerous barriers, plentiful motivators for organizing PA were identified. This creates substantial opportunities to enhance the level of PA in LTCFs.

Communication 3: **A Feasibility Study of a Nursing Intervention to Encourage Nursing Home.** M. den Ouden *(Maastricht University, CAPHRI Care and Public Health Research Institute, Department of Health Services Research, Living Lab on Ageing and Long-Term Care, Maastricht, the Netherlands)*

Background: Nursing home residents are mainly inactive during the day and nursing staff tend to take over residents' activities. DAIly NURSE is a nursing intervention that aims to support nursing staff in encouraging residents' daily activities and independence. It consists of three components; institutional policy (management organized information meetings, facilitated the workshops); nursing coaches (coaches provided workshops and consultation in the wards); and three 2h- workshops for nursing staff (awareness, knowledge and skills). **Methods:** This study tests the feasibility of a nursing intervention, called DAIly NURSE in nursing home practice. Six small-scale psychogeriatric wards of two nursing homes participated; nursing home staff (n=15) participated in the workshops. DAIly NURSE was tested between September and December 2016. Feasibility was assessed by monitoring the process of implementing DAIly NURSE in nursing care practice. Attendance lists and questionnaires were used during the workshops and a focus group interview was conducted at the end of the study with nursing staff (n=5), nursing coaches (n=2) and an occupational therapist (n=1). **Results:** All three components were implemented. The attendance rate in the workshops was high (average: 83%). Overall, nursing home staff were satisfied with the workshops (scored 9 out of 10 points) and agreed that DAIly NURSE was feasible in nursing care practice. Recommendations to optimize the feasibility of DAIly NURSE included; educate all nursing staff of the ward, add video- observations to create awareness of nursing behavior, and include discussion meetings of nursing coaches after workshops. **Conclusion:** DAIly NURSE is likely to be feasible in daily nursing practice. Future studies will focus on the effects of DAIly NURSE in nursing staff and nursing home residents.

S8- CHALLENGES IN PAIN MANAGEMENT IN NURSING HOME RESIDENTS. M.H.C. Bleijlevens *(Department of Health Services Research, CAPRHI School for Public Health and Primary Care, Maastricht University, Maastricht, The Netherlands)*

Communication 1: **Identification of barriers and facilitators of pain management in Swiss nursing homes: an explanatory mixed-methods study.** T. Brunkert[(1)], M. Simon[(1,2)], F. Zuniga[(1)] *((1) Institute of Nursing Science, Department Public Health, University of Basel, Switzerland; (2) Nursing Research Unit, Inselspital University Hospital Bern, Switzerland)*

Background: Despite the wide availability of evidence-based guidelines for the management of geriatric pain, prevalence of untreated and undertreated pain in residents of nursing homes remains high. The overall aim of this study was to generate a comprehensive understanding of barriers and facilitators of pain management in Swiss nursing homes. **Methods:** This explanatory mixed methods study was embedded in a cross-sectional study in 20 privately owned nursing homes in Switzerland conducted in 2016. Quantitative data was obtained with questionnaire surveys of care workers (n= 343) in the participating institutions. Items addressed perception of barriers to pain management. Descriptive statistics were computed. The qualitative strand comprised four focus groups with 17 care workers (registered nurses, licensed practical nurses and nursing aides). Focus groups were analyzed with a knowledge mapping approach. Quantitative data were first integrated to inform interview guides and secondly both data were merged in a mixed-methods matrix for interpretation. **Results:** Items rated most problematic on the barriers scale were: Lacking availability (60.9%, CI: 52.6-68.7) and application of non-pharmacological treatment (53.6%, CI: 47.3- 63.6); reluctance of residents to report pain (51.1%, CI: 43.4-59.8) and lack of time for a comprehensive pain assessment (50.5%, CI: 44.1- 60.4). Focus group discussions showed that perceived time constraints might result from insecurity in using standardized assessment instruments due to lacking training possibilities. Moreover care workers expressed that they perceive frequent turnover as a main barrier to implement evidence based practice in pain management. A trustful relationship with the resident and knowledge of the residents` biography on the other hand were regarded as facilitators for pain assessment. **Conclusions:** Discontinuity in care teams can challenge the implementation of practice changes. A comprehensive contextual analysis prior to implementation can facilitate necessary adaptions such as training of a pain expert nurse or continuous refresher-courses in pain management.

Communication 2: **Is pain treated differently in nursing home residents?** S.M.G. Zwakhalen *(Department of Health Services Research, CAPRHI School for Public Health and Primary Care, Maastricht University, Maastricht, The Netherlands)*

Background: Pain is a frequent occurring problem in people with dementia. Careful pain management is therefor a number one priority. Persistent pain results in various problems including a decrease of quality of life.This study determines if pain and analgesic pain treatment differs in people with dementia living in a nursing home versus living at home. In addition the study aims to analyze whether the use of analgesics in elderly people with dementia in the Netherlands complies with the Dutch standard guideline developed for pain in older vulnerable patients (Verenso, 2011). **Methods:** Using base line data from a European project entitled RightTimePlaceCare, a secondary-data analyses has been performed related to pain and analgesics-use in elderly people with dementia in two different living situations. Data of 290 participants older then 65 years, diagnosed with dementia by a specialist were included. Included were data about the presence of pain; use of analgesics; number of analgesics, analgesics according to the WHO-ladder. **Results:** Pain was present in 43.4 % of nursing home residents and in 46.3 of the people with demntia living at home. Pain was treated significantly different in patients living at home versus those who lived institutionalized. Descriptive analysis showed that paracetamol (Step 1a) and NSAID's (Step 1b) are most often used. Opios (Step 3) are very rarely used in elderly people with dementia even though pain is frequently present. Analyses showed a significant difference in analgesics use among elderly people with dementia living in a nursing home and living at home. In addition, a significant difference was demonstrated in the use of paracetamol (Step 1a) and NSAID's (Step 1b) between people with dementia in the two living conditions. Use of analgesics in elderly people with dementia living in the nursing home was in the majority of cases according to the guidelines. **Conclusion:** More attention on pain and its management is needed to provide appropriate pain treatment in order to reduce the pain.

Oral Communications

OC1- REDUCING ANTIBIOTIC PRESCRIBING IN NURSING HOMES: IMPLEMENTATION OF AN EFFICACIOUS ANTIBIOTIC STEWARDSHIP PROGRAM. S. Zimmerman, P. Sloane, D. Reed, K. Ward, C. Kistler *(University of North Carolina at Chapel Hill, Chapel Hill, USA)*

Backgrounds: Due to growing concern that unnecessary overuse of antibiotics in nursing homes (NHs) fosters the emergence and dissemination of antibiotic-resistant bacteria, U.S. NHs are being required to establish antibiotic stewardship programs. **Objectives:** Successful adoption of antibiotic stewardship programs is not straightforward and requires leadership, policies, data tracking, ongoing monitoring, and education. This project implemented an efficacious antibiotic stewardship program that reduced prescribing by over 25% in an earlier group randomized trial. This implementation trial compared adoption of implementation through a NH chain with that through a dedicated group of physicians, nurse practitioners, and physician assistants, and changes in antibiotic prescribing. **Methods:** Twenty-eight NHs participated in the project. Implementation included in-service and/or web-based training for nursing staff, an audiocast training for medical providers, and reports and materials sent regularly to both groups highlighting key points related to antibiotic prescribing decision-making and resistance. Prescribing of antibiotics for respiratory, urinary, and skin infections was monitored for one year, as was training and other matters related to antibiotic prescribing. **Results:** More nurses in the chain-based NHs received training, and more often reported that it was important for their clinical care. After one year of implementation, overall antibiotic prescribing decreased by 19% in the NH chain group and by 11% in the medical provider group, with reductions highest for antibiotic prescribing for presumed urinary tract and respiratory infections. None of the differences by type was statistically significant, but the overall 15% reduction across all 28 study homes was significant (p=0.05). **Conclusion** NH medical providers can reduce antibiotic prescribing using an efficacious antibiotic stewardship program focused on reducing unnecessary antibiotic prescribing for presumed urinary, respiratory, and skin infections. In terms of prescribing outcomes, implementation is equally effective if the champions are the NH organization overall or the medical care providers overseeing the care of the majority

of residents. Future work should focus on promoting efficacious programs to reduce unnecessary antibiotic prescribing in NHs, especially in light of the new mandate of the Centers for Medicare & Medicaid Services for all U.S. NHs to implement an antibiotic stewardship program by November 2017.

OC2- THE DEVELOPMENT AND EVALUATION OF A METHODOLOGY FOR THE ROUTINE MEASUREMENT OF QUALITY OF LIFE IN CARE HOMES. L. Hughes, N. Farina, N. Tabet, S. Banerjee *(Centre for Dementia Studies, Brighton and Sussex Medical School, England)*

Backgrounds: Current estimates suggest up to 80% of people in care could have dementia or memory impairments. There is increasing concern about the quality of care provided for this group within care homes (CHs) and a lack of consensus about how best to measure quality of care. One approach is the routine measurement of quality of life (QoL). Observational measures exist, however, their use is time consuming and requires specialised costly training. QoL questionnaires developed for dementia are preferable in terms of ease-of-use and cost, but these measures were created for research and clinical purposes, and may not be tailored for use within a CH setting. **Objectives:** This study seeks to adapt an existing instrument to create the DEMQOL-CH questionnaire and validate its use in CHs. **Methods:** This study is made up of several stages. Stage 1a used qualitative methodology in a small number of CHs to determine the feasibility of routinely measuring QoL in CHs. Stage 1b quantitatively assessed whether the DEMQOL-Proxy can be used independently by CH staff. Stage 2: the agreement between the DEMQOL-Proxy and a newly developed DEMQOL-CH was assessed. Stage 3 evaluated the psychometric properties of the DEMQOL-CH in a further set of CHs. **Results:** Stage 1a: Interviews highlighted areas for consideration when implementing a QoL instrument into care practice, a guidance was created from this. Stage 1b: 92 pairs of data were analysed to assess agreement between the DEMQOL-Proxy when self-administered and interviewer-administered. Significant differences in QoL scores were found. Stage 2: 52 pairs of data were analysed to assess the agreement between the DEMQOL-CH and the DEMQOL-Proxy. No significant differences were found. Bland Altman plot analysis showed good agreement between the two instruments. Stage 3: Psychometric analysis showed the DEMQOL-CH is a reliable and valid instrument for use in a CH settings. **Conclusion:** The DEMQOL-Proxy showed a tendency for staff to under-estimate QoL without an interviewer. This highlights the inappropriateness of using interviewer administered QoL measures for routine practice in a CH setting. The newly developed DEMQOL-CH may provide an effective, quick and accessible QoL instrument that could be used independently by CH staff in routine practice.

OC3- POTENTIALLY PREVENTABLE HOSPITALIZATIONS FROM NURSING HOMES TO ACUTE CARE HOSPITAL'S A RETROSPECTIVE ANALYSIS OF 2013 SWISS NATIONAL DATA. F. Zúñiga[(1)], M. Simon[(1,2)] *((1) Institute of Nursing Science, Department Public Health, University of Basel, Switzerland; (2) Nursing Research Unit, Inselspital University Hospital Bern, Switzerland)*

Backgrounds: Between 20% and 60% of hospitalizations from nursing homes (NH) might be preventable, causing not only negative effects on residents' health and quality of life, but also additional costs. **Objectives:** To describe potentially preventable hospitalizations in Swiss acute care hospitals based on ambulatory-care sensitive conditions (ACSC). **Methods:** This retrospective analysis used anonymized data routinely collected by the Swiss Federal Office of Statistics for all hospitalizations to Swiss acute care hospitals in 2013 (n=1,374,439). The definition of ACSC was based on the work of two expert groups from the USA (Walsh et al. 2010) and Canada (Walker et al. 2009) who created NH-specific lists for ACSC. Only diagnoses both groups considered as ACS conditions were included. **Results:** Overall, 1.7% of all hospitalizations were admitted from NHs. Of all NH residents, 12.4% had multiple hospitalizations in one year, being readmitted for up to 7 times. Half of all hospitalizations (53.8%) were initiated by a physician, 35.1% by paramedics and 6.3% by the residents or their families. Only 62.1% returned to the NH after the hospital stay. The main diagnosis for 19.2% of the hospitalizations was an ACSC, most frequently pneumonia & bronchitits (6.2%), congestive heart failure (5.0%), urinary tract infection (2.1%), and COPD (2.0%). An additional 22.2% of the hospitalizations from NHs were due to falls and trauma. The median length of stay were 8 days, the mortality was 7.7%. **Conclusion:** The results are similar to international data and show potential in the Swiss health system to reduce the number of hospitalizations from nursing homes. Since there is a strong evidence-base about how to treat ACSC and prevent acute deterioration, a possible intervention is to strengthen geriatric expertise among nursing home personnel as well as advance care planning for chronic conditions.

OC4- REDUCTIONS IN HOSPITALIZATIONS AND EMERGENCY DEPARTMENT (ED)VISITS FROM NURSING HOMES (NHS) ASSOCIATED WITH DEGREE OF IMPLEMENTATION OF THE INTERACT PROGRAM. P. Huckfeldt[(1)], B. Reyes[(2)], R.L. Kane[(1)], R. Tappen[(3)], G. Engstrom[(2)], C. Rojido[(2)], D. Newman[(2)], Z. Yang[(1)], J.G. Ouslander[(2,3)] *((1) University of Minnesota School of Public Health, Winston, USA; (2) Florida Atlantic University, Charles E. Schmidt College of Medicine, Boca Raton, UAS; (3) Florida Atlantic University, Christine E. Lynn College of Nursing, Boca Raton, USA)*

Backgrounds: The Interventions to Reduce Acute Care Transfers (INTERACT) quality improvement program was designed to improve the management of acute changes in condition in NHs and reduce potentially avoidable hospitalizations(PAH) and ED visits. In a randomized, controlled implementation trial involving 264 NHs the strategies used for training and implementation support employed showed no effect on hospitalization outcomes; 85 NHs with no prior INTERACT use demonstrated significant reductions in PAH, but no other outcomes. **Objectives:** To determine if changes in use of INTERACT were associated with reductions in hospitalizations, PAH, and ED visits during a 12-month implementation trial. **Methods:** This was a secondary analysis of data from the randomized controlled trial involving 200 NHs from both the original intervention and control groups that reported their degree of INTERACT use before and after a 12-month implementation period. Degree of use was based on self-reported use of two INTERACT core tools (SBAR and Stop and Watch). NHs were categorized based on changes in INTERACT use during the implementation period. Outcome measures included changes in all-cause hospitalization rates, and rates of PAH and ED visits. Results were adjusted for NH and patient factors that could influence hospitalization rates. **Results:** 34 NHs reported consistent low or moderate use (Group 1), 65 NHs reported increasing from no or low use to moderate or high use (Group 2) and 100 NHs reported consistent moderate or high use or decreases in use (Group 3). Group 1 NHs showed significantly greater decreases in the rate of all cause hospitalizations, PAH and ED visits compared to the 34 NHs that had low or moderate use at baseline and 12 months. Group 3 NHs showed significantly greater decreases in ED visits than

Group 1. **Conclusion:** Increasing INTERACT use from no or low use to moderate or high uses was associated with greater decreases in hospitalization outcomes, regardless of whether they were in the intervention or control group. These findings confirm previous results in a non-randomized trial in 25 NHs, and suggest that motivation and capacity to improve may be more important than the training and implementation support provided in this study.

OC5- SPECIAL CHALLENGE - EDUCATING NURSING HOME RESIDENTS: SYSTEMATIC LITERATURE REVIEW AND RECOMMENDATIONS FOR PRACTICE. D. Schoberer[1], H. Leino-Kilpi[2], H.E. Breimaier[1], R.J.G. Halfens[3], C. Lohrmann[1] *((1) Institute of Nursing Science, Medical University of Graz, Graz, Austria; (2) Turku University Hospital, University of Turku, Turku, Finland; (3) Department of Health Services Research, School for Public Health and Primary Care (CAPHRI), Maastricht University, Maastricht, the Netherlands)*

Backgrounds: Heath education in frail older nursing home residents is challenging, due to cognitive changes at the higher age and due to older person's often preferred passive role in treatment, self-care and decision-making. Great efforts must be undertaken in order to support older people to be empowered in a way that they can benefit from an educational intervention. Currently, there is a scarcity of evidence-based recommendations focusing on educational interventions to empower nursing home residents. **Objectives:** The aim of this review was to identify educational interventions that can effectively empower nursing home residents. Based on the results, recommendations for nursing home practice were developed. **Methods:** A systematic review was conducted by screening the databases PubMed, CINAHL, CENTRAL and Embase as well as sources to identify grey literature. Two authors independently appraised the quality of the studies found and assigned levels of evidence. The results of the studies were grouped according to central empowering outcomes and described narratively. Strategies of effective interventions were derived to develop recommendations for nursing home practice. **Results:** Out of 427 articles identified, 10 fulfilled the inclusion criteria, from which the majority was graded as good quality. Educational interventions that might significantly (p. **Conclusion:** Although the health education of nursing home residents is challenging, it is a possible endeavor and achievable objective. Empowering educational strategies used by nurses can support residents in their personal growth and facilitate their self-management skills. As only little research on educational interventions to empower nursing home residents has been conducted so far, further research in this area is needed, especially with a clear focus on empowering outcomes like self-determination or autonomy.

OC6- COMPARISON OF THE END OF LIFE EXPERIENCE FOR THOSE WITH CANCER, DEMENTIA AND CHRONIC ILLNESS IN RESIDENTIAL AGED CARE IN NEW ZEALAND: A RETROSPECTIVE, CROSS-SECTIONAL STUDY. M. Boyd, R. Frey, D. Balmer, S. Foster *(School of Nursing Te Arai Palliative Care Research Group, University of Auckland, Auckland, New Zealand)*

Backgrounds: In New Zealand (NZ), approximately 45% of people over 65 years old live in residential aged care facilities (RACF) at time of their death, one of the highest rates worldwide. Relatively little is known in NZ about the end of life care experience of people in RACF. The aim of this research is to compare the quality of death in RACF for those with primary diagnoses of either cancer, dementia or chronic illness. **Objectives:** 1. Describe the end of life experience for older people in residential aged care facilities in New Zealand. 2. Compare the end of life experience across three primary diagnoses: cancer, dementia and chronic illness. 3. Discuss the gerontology palliative care model required for those with advanced frailty including dementia and chronic illness. **Methods:** This is a retrospective cross-sectional study with random cluster sampling of representative facilities across NZ. Deaths were monitored for three months in each facility. Standardised questionnaires, Symptom Management and Comfort Assessment in Dying at End of life with Dementia (SM-EOLD and CAD-EOLD) were administered to RACF nursing staff most closely associated with the recorded deaths. **Results:** There were 63 participating facilities (3,792 beds) with 285 deaths recorded during the study period. The primary diagnoses categories were dementia for 55% of deaths, chronic illness for 28% and cancer for 16%. Those with cancer were significantly younger than those with either dementia or chronic diseae and had much shorter lengths of stay. There was no significant difference in symptoms across the three categories for the SM-EOLD in the last month of life (cancer mean 33.66(SD 4.91), dementia 34.14(SD 5.44), chronic illness 33.11(SD 5.10)) or the CAD-EOLD in the last week of life (cancer mean 18.09(SD 7.06), dementia 18.61(SD 8.50), chronic illness 17.84(SD 8.50)). There was more hospice involvement for those with cancer (30%) than chronic disease (11%) and dementia (5%). There were also more sentinel events such as pneumonia, hip fractures and swallowing issues for those with dementia than other groups in the last month of life. **Conclusion:** End of life care in RACF in New Zealand requires a high level of symptom management skill in the last weeks and days of life regardless of the primary diagnosis. However, those with advanced frailty, including chronic disease and dementia require a different palliative care model than those with cancer. This model must be based on comprehensive gerontology care over a longer period of time.

OC7- A STATEWIDE SURVEY OF USE OF THE INDIANA PHYSICIAN ORDERS FOR SCOPE OF TREATMENT IN NURSING HOMES. S.E. Hickman[1], A.M. Torke[2], R. Sudore[3], G.A. Sachs[2], Q. Tang[4], G. Bakoyannis[4], B.J. Hammes[5] *((1) Indiana University School of Nursing, Department of Community & Health Systems, Indianapolis, Indiana, USA; (2) Indiana University School of Medicine, Department of General Internal Medicine & Geriatrics, Indianapolis, Indiana, USA; (3) University of California San Francisco School of Medicine, San Francisco, California, USA; (4) Indiana University School of Medicine, Department of Biostatistics, Indianapolis, Indiana, USA; (5) Respecting Choices, A Division of C-TAC Innovations, La Crosse, Wisconsin, USA)*

Backgrounds: The Physician Orders for Life-Sustaining Treatment (POLST) form is an advance care planning tool used to document treatment preferences in the form of actionable medical orders. It is widely used in nursing homes (NH) in the United States for residents with serious illness or frailty. The Indiana version (Physician Orders for Scope of Treatment or POST) became available in July 2013. **Objectives:** To assess use of the Indiana POST form to record resident treatment preferences and associated practices. **Methods:** NH staff responsible for advance care planning were surveyed by phone and email in Spring 2016. Participants provided information about facility use of the Indiana POST, related policies, and educational activities. Facilities that could not be reached by phone or email were sent a brief survey by mail. **Results:** Almost all (91%) of the 535 NHs in Indiana provided data. A majority (64%) reported POST forms were completed with residents within the NH, most often completed at the time of admission (66%). Among NHs completing POST within the NH, 47% reported that half or more residents in the NH had a POST

form. Forms were typically initiated by social services (48%) and nursing services (35%). Only half (52%) of participants were aware of an existing facility policy regarding use of POST. A majority (80%) reported general staff education on POST, but only 26% reported receiving education about how to have the POST conversation. Among facilities not using POST (n = 172), reasons included unfamiliarity with the tool (23%) and a lack of facility policies (21%). **Conclusion:** Almost three years after introduction of the voluntary Indiana POST, a majority of NHs were using POST to support resident care. Areas for improvement include creating policies on POST for all NHs, training staff on POST conversations, and considering processes that may enhance the POST conversation, such as finding an optimal time to engage in POST conversations about treatment preferences outside of a potential rushed admission process.

OC8- IDENTIFYING FACILITATORS AND BARRIERS TO IMPLEMENTING A POLICY TO COUNTER THE MISTREATMENT OF RESIDENTS IN LONG-TERM CARE FACILITIES: SURVEY OF MULTIPLE STAKEHOLDERS IN QUEBEC (CANADA). M. Couture[(1)], S. Israël[(1)], M. Sasseville[(2)] *((1) Centre for Research and Expertise in Social Gerontology, CIUSSS West-Central Montreal, Canada; (2) Centre de recherche Hôpital Charles-Le Moyne, Longueuil, QC, Canada)*

Backgrounds: In Canada, long-term care (LTC) facilities are recently obligated to implement a policy to counter mistreatment within their establishment to be in concordance with Accreditation Canada's Standards for LTC Services. **Objectives:** The aim of this study was to identify facilitators and barriers to the implementation of a policy to counter resident mistreatment in LTC facilities within the province of Quebec (Canada). **Methods:** Using a participative approach, a research team supported by the provincial government developed and validated a policy template to help administrators in the fight against resident mistreatment. In 2016, a hundred and five stakeholders, including employees of LTC facilities (administrators, nurses, orderly, professionals from the multidisciplinary team), people responsible for the quality of services and working conditions (representatives of the residents'/users' committee, service quality and complaints commissioners, Union representatives, human resources representatives) as well as representatives of provincial initiatives to counter mistreatment (e.g. members of the provincial multisectoral consultation team to counter older adult mistreatment), examined the policy template and were surveyed regarding the content of the policy as well as barriers and facilitators to implementation using multiple-choice (four-point Likert scales) and open questions. The approach of Miles and Huberman (1994) was used to analyse the data. **Results:** Stakeholders from throughout the province expressed the importance of having a relatively short policy that uses an accessible level of language and concrete examples to illustrate the content. The three main obstacles to the implementation were related to human resources: lack of mobilisation in the fight to counter mistreatment, difficulties in detecting potential situations of mistreatment and fear of reprisals when reporting suspected situations of mistreatment. Facilitators identified by stakeholders included: 1) identification of the policy as an institutional and governmental priority; 2) training for everyone in contact with residents using communication tools adapted to each audience; and 3) clarifying procedures and who is responsible for their application. **Conclusion:** Stakeholders share the idea that implementing a policy to counter the mistreatment of residents is everyone's responsibility within the LTC facility. Nonetheless, the institution and the government must first acknowledge the policy as a priority to efficiently mobilize resources.

Posters

P1- THE COMPARISON OF THE AD-8 DEMENTIA SCREENING AND THE SAINT LOUIS UNIVERSITY MENTAL STATUS EXAMINATION (SLUMS) IN DETECTING MILD COGNITIVE IMPAIRMENT IN THE ELDERLY: AN OBSERVATIONAL STUDY. K. Vattathara[(1)], J.E. Morley[(2)], T.K. Malmstromry[(3)] *((1) Saint Louis University School of Medicine, Saint Louis, Missouri, USA; (2) Division of Geriatric Medicine, Saint Louis University School of Medicine, Saint Louis, Missouri, USA; (3) Department of Psychiatry and Behavioral Neuroscience, Saint Louis University School of Medicine, Saint Louis, Missouri, USA)*

Backgrounds: In The prevalence of cognitive dysfunction, such as mild cognitive impairment, increases with age, especially among older adults ages 65+. Mild cognitive impairment represents cognitive dysfunction beyond what occurs due normal aging, but which does not significantly impact function in normal activities of daily living. The AD8 and SLUMS Exam were developed as a brief screening tool for cognitive dysfunction in older adults. **Objective:** Examine how well the AD8 works as screening measure for cognitive dysfunction (mild cognitive impairment and dementia) in older adults ages 65+. To do this, the AD8 will be compared to the SLUMS Exam (gold standard of comparison). **Methods:** This is an observational study. Participants will be recruited in UMG clinic. After necessary HIPPA and consent forms are signed, participants will be administered the SLUMS Exam, and be asked to complete a brief demographics questionnaire. For the AD8, an informant will be asked 8 questions on the AD8 about the research participant\'s memory and thinking. For the SLUMS Exam, research participants are to complete a brief memory and thinking test by a study investigator. **Results:** The sensitivity and specificity values of AD8, after using the SLUMS as a gold standard of comparison, are as follows: a) AD8 scores greater than or equal to 3 have a sensitivity of 0.67 and specificity of 0.71 for MCI (area under the curve=0.706; p<0.001; 95% confidence interval, 0.537-0.876); b) AD8 scores greater than or equal to 4 have a sensitivity of 0.88 and specificity of 0.76 for Dementia (area under the curve=0.874; p<0.001; 95% confidence interval, 0.778-0.971). c) AD8 scores greater than or equal to 3 have a sensitivity of 0.83 and specificity of 0.71 for any Cognitive Dysfunction (i.e., MCI or Dementia) (area under the curve=0.809; p<0.001; 95% confidence interval, 0.692-0.926). **Conclusion:** The AD-8 may have a good sensitivity and specificity in detecting MCI and Dementia independently. The AD-8 also has a good sensitivity and specificity in detecting MCI or Dementia (cognitive dysfunction). Further studies with a larger sample size and different populations need to be conducted to confirm this.

P2- SCREENING FOR VITAMIN D DEFICIENCY IN BLACK AMERICANS. A. McKee, S.M. Lima Ribeiro, J.E. Morley, T.K. Malmstrom, H.M. Perry III, D.K. Miller, S.S. Farr, M.L. Niehoff, S. Albert *(Saint Louis University, USA)*

Backgrounds: It has been proposed that although black Americans have lower total vitamin D levels than white Americans, they have lower vitamin D binding proteins and similar free vitamin D levels. Therefore there should be different standards for vitamin D sufficiency between black and white Americans. **Objectives:** Determine whether determining free vitamin D levels contributes to assessment of vitamin D sufficiency status in black Americans. **Methods:** Serum samples from the African American Health Study group (122 men, 206 women, age 60.2 Â±4.3 years) were analyzed for total vitamin D, PTH and vitamin D binding protein. and correlated with demographic and

bone mineral density studies. Free and bioavailable vitamin D levels were calculated using affinity constants for the common vitamin D binding protein genotypes, the lower capacity high affinity Gc1f phenotype and the higher capacity low affinity Gc1s phenotype. Vitamin D insufficiency was estimated by compensatory elevations of PTH above the normal range. BMD of the lumbar spine and hip were evaluated by dual-energy x-ray absorptiometry (DEXA). **Results:** Serum total vitamin D levels were 14.6 ±8.9ng/mL. There was no difference in calculated free or bioavailable vitamin D levels between the two vitamin D binding protein phenotypes after adjusting the serum levels for binding affinity. Vitamin D sufficiency was estimated as the level of vitamin D that was adequate to achieve normal PTH levels in 95% of the population, at a total vitamin D level of 20ng/mL, a free vitamin D level of 8.5 pg/mL and a bioavailable vitamin D of 3.2 ng/mL. These values were independent of serum levels of vitamin D binding proteins. BMD had significant correlations with BMIfor the entire cohort and men and women separately . There were no correlations of BMD with vitamin D or PTH levels. **Conclusion:** Although it has been suggested that total vitamin D levels will yield a false determination of vitamin D insufficiency in black Americans, our findings indicate that the Institute of Medicine guidelines that total 25-hydroxyvitamin D remains a true reflection of vitamin D status in black Americans. The need for vitamin D supplementation to support bone mineral density, may be liberalized in black Americans, due to their inherent increase in BMD, without adverse outcomes.

P3- SNOEZELEN THERAPY AS AN INTERVENTION TO REDUCE AGITATIONS IN NURSING HOME PATIENTS WITH DEMENTIA: A PILOT STUDY. S. Berkheimer[(1)], Q. Chen[(2)], T.K. Malmstrom[(1,3)], J.E. Morley[(1)] *((1) Department of Internal Medicine, Division of Geriatric Medicine, Saint Louis University, St. Louis, MO USA; (2) The Center of Gerontology and Geriatrics, West China Hospital, Sichuan University, Chengdu, Sichuan, China; (3) Department of Psychiatry and Behavioral Neuroscience, Saint Louis University, St. Louis, MO USA)*

Backgrounds: Nonpharmacological interventions have been shown in many studies to be relatively effective in reducing agitation and improving the quality of life in patients with dementia. One such emerging intervention that is not well established or validated, however, is Snoezelen therapy. **Objectives** The objective of this study was to compare the effects of a Snoezelen program and an exercise program on agitation in nursing home patients with dementia. **Methods:** A six-week prospective cross-over study comparing the efficacy of Snoezelen (3-weeks) and exercise (3-weeks) programs in reducing agitation among nursing home patients with dementia in 2016. Eight residents in a dementia care unit of a nursing home participated in this study. Subjects participated in two interventions/programs (30-minutes, 3 times/week): Snoezelen therapy and exercise. In the Snoezelen intervention subject interacted with sensory equipment, and in the exercise intervention subjects engaged in exercise. Agitation was measured using the short form of the Cohen-Mansfield Agitation Inventory. **Results:** Subjects average age was 88.0±4, average SLUMS score was 2.4±3, and 75% were female. CMAI short-form scores are reported in Table 1. The average decrease for the exercise intervention was 6.5 points (p=0.057), and the average decrease for the Snoezelen intervention was 6.0 points (p=0.092). The difference between the CMAI decreases after the exercise versus the Snoezelen intervention was 0.5 points (p=0.829). **Conclusion:** The pre- and post-test CMAI scores were not statistically different for either intervention group likely due, in part, to the small sample size for this pilot study. On the other hand, the observed decreases in agitation scores for both interventions were in the predicted direction. Though it cannot confidently be concluded from this pilot study that Snoezelen therapy and exercise therapy are able to produce a significant reduction in agitation among dementia patients, the data suggest that there is a trend towards such a reduction. This study further indicates that Snoezelen therapy and exercise therapy may have similar efficacy at reducing agitation in nursing home patients with dementia.

P4- THE ESTABLISHMENT OF A WOUND CARE EXPERTISE CENTRE IN THE NETHERLANDS: A PILOT PROJECT FROM A NURSING HOME. J. Neyens, J. Schols *(Maastricht University Department of Health Services Research Caphri School for Public Health, Maastricht (Netherlands))*

Backgrounds: Fragmented organization and suboptimal quality of chronic wound care in the Netherlands urged for a new strategy. **Objectives:** The objectives are to decrease the healing time of chronic wounds, and subsequently to improve both the quality of life of patients and to reduce the costs of chronic wound care. **Methods:** - a joint venture between De Riethorst Stromenland, a nursing home and Thebe Wijkverpleging, a home care organization to establish a Wound Care Expertise Centre; - timely tailored assessment and expert treatment of chronic wounds and monitoring by using web-based electronic client files; - chronic wounds are directed to the most appropriate professional at the right moment; - close cooperation between all relevant health care professionals involved; - continuous quality control; - patient satisfaction measurements. **Results:** By establishing a Wound Care Expertise Centre the healing time of chronic wounds decreased and subsequently has led to a better quality of life in patients and positive experience of quality of care. The patients' satisfaction increased and was graded from 8.7 to 9.5 on a scale of 1-10. (1 being the lowest and 10 the highest quality of care). The majority of the patients (up to 93%) would recommend the Expertise Centre of Wound Care to a friend or family. In addition, 87% of the responding patients indicated that their health status was improved due to the provided wound care. Moreover, patients indicated that they were more than sufficiently involved in shared decision making during the treatment. By measuring the (decreased) healing time of chronic wounds, there is an indication of reduced nursing time and reduction of the use of wound care dressings leading to substantial cost savings by this initiative. **Conclusion:** Wound care provided from an innovative Wound Care Expertise Centre decreased the healing time of chronic wounds, improved the quality of life of patients involved and reduced the costs of chronic wound care.

P5- OPTIMIZING EATING PERFORMANCE AMONG COGNITIVELY IMPAIRED NURSING HOME RESIDENTS: INTRA-PERSONAL, INTER-PERSONAL AND ENVIRONMENTAL FACILITATORS AND BARRIERS FROM CERTIFIED NURSING ASSISTANTS™ PERSPECTIVE. W. Liu[(1)], T. Tripp-Reimer[(1)], K. Williams[(2)] *((1) The University of Iowa College of Nursing, Iowa city, USA; (2) University of Kansas, School of Nursing, Kansas City, USA)*

Backgrounds: Nursing home (NH) residents with dementia have high risk of compromised eating performance due to personal and environmental factors. Current programs, including resident or staff training, mealtime assistance, and environmental modifications, mostly target factors at one single level with limited quality. Multi-level approaches to promote eating performance are highly recommended. To achieve that, there is a need to further understand the interpersonal, intrapersonal and environmental factors that influence eating performance in dementia. **Objectives:** The purpose of this study

was to elicit certified nursing assistants (CNA) perceptions on the facilitators and barriers to engaging cognitively impaired NH residents at mealtimes. **Methods:** This study used a qualitative design. Four focus groups were conducted with a purposive sample of 18 CNAs who provided mealtime care to residents with dementia who needed help with eating in two NHs. Interview questions included mealtime care experiences, caregiver-level techniques that (don't) work in engaging resident, things within the environment (facility) that make it easier (difficult) to deliver optimal mealtime care, and training needs. Audio-recorded interviews were transcribed and analyzed using basic content analysis in Nvivo. Codes were extracted from significant statements and clustered into major domains based on similarities and differences. **Results:** Both barriers and facilitators were identified at the resident, caregiver, and environmental levels. Some domains only have codes, while other domains have subcategories of codes. For example, caregiver-level barriers included codes such as frequent interruptions from other staff, competing demands to answer call lights, and time pressures. Caregiver-level facilitator domain include subcategories such as caregiver preparation, motivational assistance, technical assistance, informational assistance, and instrumental assistance. Examples of codes of technical assistance include sitting residents upright, asking residents' preferences, starting with drinks, offering drinks between bites, not forcing residents to eat, and re-approaching residents. A typology of barriers and facilitators at all three domains will be presented. **Conclusion:** The findings will inform the development and implementation of multi-level interventions to promote eating performance as well as to foster person-centered individualized mealtime care practice in nursing home settings. The findings will also provide data to develop measures to assess barriers and facilitators at multiple levels to promote eating performance in dementia.

P6- THE NITRATE-NITRITE-NITRIC OXIDE PATHWAY IN INTUBATED PATIENTS OR WITH DYSPHAGIA. G. van der Putten *(Amaris Gooizicht and Radboudumc, Hilversum, the Netherlands)*

Backgrounds: Among nursing homes residents, aspiration pneumonia is an important cause of illness and death. Dysphagia is a risk factor for developing this form of pneumonia. Swallowing, which is complicated in case of dysphagia, is an important part of the entero-salivary circulation of nitrate in humans. Salivary nitrite enhances the antimicrobial properties of gastric juice by conversion to nitric oxide (NO) and other reactive intermediates in the stomach. **Objectives:** To systematically review non-experimental, epidemiologic evidence for reduced nitrite and nitrate concentrations in whole saliva and/or stomach of intubated patients or patients with dysphagia. **Methods:** Electronic bibliographic databases, supplemented by hand searches of recent and future issues of relevant journals. Longitudinal and cross-sectional epidemiologic, non-interventional studies that permit determination of directionality of observed effects were included. **Results:** The intragastrical generation of NO, which is a part of the nitrate-nitrite-NO pathway, appeared to be almost abolished in intubated patients. Enteral nitrite supplementation could restore the levels NO to those seen in healthy controls. These results affirm the important function of swallowing saliva to maintain normal NO levels in the stomach. So, lack of continuous delivery of saliva to the stomach due to mechanically ventilation, disrupts the nitrate-nitrite-NO pathway. This could not be confirmed for patients with dysphagia because no studies with the aim to assess this association were found. Ingestion of nitrate in amounts corresponding to a normal intake of vegetables showed a pronounced effect on the salivary level of nitrite, as well as on subsequent killing of bacteria in the gastric juice. A process that is highly dependent on the reductive capacity of the commensal bacteria in the mouth. **Conclusion:** These results suggest that nursing home residents with dysphagia could also have a disturbed nitrate "nitrite" nitric oxide pathway, with its consequences. Furthermore, these findings shed new light on the relationship between food intake and human disease, as well as motivating studies designed to determine whether oral supplementation with nitrite may be of therapeutic value, as well as for intubated patients and patients with dysphagia.

P7- THE PREVENTION PROGRAM FOR ALZHEIMER'S RELATED DELIRIUM (PREPARED) TRIAL: A CLUSTER RANDOMIZED TRIAL TARGETING DELIRIUM PREVENTION IN LONG-TERM CARE RESIDENTS WITH DEMENTIA. M. Wilchesky[(1)], J. McCusker[(2)], N. Champoux[(3)], T.T. Minh Vu[(4)], A. Ciampi[(2)], J. Monette[(5)], O. Lungu[(6)], S.A. Ballard[(7)], E. Belzile[(2)], P. Voyer[(8)] *((1) Department of Family Medicine and Division of Geriatric Medicine, McGill University, Montreal, Canada; (2) St. Marya Research Centre, Montreal, Canada; (3) Institut universitaire de gériatrie de Montréal, Montreal, Canada; (4) Service de gériatrie, Centre hospitalier de l'université de Montréal, Montreal, Canada; (5) Division of Geriatric Medicine, Jewish General Hospital, Montreal, Canada; (6) Département de psychiatrie, Université de Montréal, Montreal, Quebec; (7) Center for Research in Aging, Donald Berman Maimonides Geriatric Centre, Montreal, Canada; (8) Faculté des sciences infirmières, Universitéde Laval, Quebec City, Canada)*

Backgrounds: Delirium significantly increases morbidity and mortality among the elderly residing in long-term care (LTC). Although several multicomponent delirium prevention programs targeting modifiable risk factors have proven successful in reducing delirium incidence in acute care, the efficacy of this approach within LTC remains unexplored. **Objectives:** The goal of the PREPARED trial is to assess the efficacy of a multicomponent intervention in reducing delirium (incidence, frequency, severity, episode duration) and falls (secondary objective) among cognitively impaired LTC residents. **Methods:** This 4-year cluster randomized trial will enroll 900 residents at 40-50 LTC facilities (LTCFs) in Montreal, Canada. LTCFs will be randomized to the PREPARED intervention or to usual care (control) using covariate constrained randomization. Only residents with dementia and/or cognitive impairment who are found to be at high risk for delirium will be enrolled, provided that they are delirium-free at baseline for two consecutive weeks. Delirium incidence and severity will be assessed weekly, for a period of 18 weeks. Cognitive impairment and functional autonomy will be assessed at baseline and at end of follow-up by an assessor blinded to resident delirium status, who will also collect information from medical charts (modifiable delirium risk factors, medical consultations, falls, and institutional transfers). A state-of-the-art electronic data capture system implemented on secured mobile devices will ensure real-time trial management and monitoring. Hazard ratios will be modeled using Cox regression comparing the effect of the PREPARED intervention to that of usual care on the time to first delirium episode. Clustering effects will be handled using frailty models, an extension of Cox regression to account for random effects. **Results:** To date, we have obtained agreement to participate, in principle, from 34 (62.96%) public and 12 (63.16%) private LTCFs on the Island of Montreal, corresponding to over 7000 LTC beds, ensuring access to a large sample size. Based on previous multicomponent delirium prevention studies, we expect a 40-45% reduction in delirium incidence following the implementation of the PREPARED Trial intervention, as compared to current care practices.

Conclusion: This large-scale study will contribute significantly to the development of evidence-based clinical guidelines for delirium prevention in LTC.

P8- HOW DOES SOCIAL SERVICE STAFFING AFFECT FAMILY SATISFACTION? A. Restorick Roberts, J.R. Bowblis *(Family Science and Social Work, Miami University and Scripps Gerontology Center Research Fellow, Oxford, Ohio, USA)*

Backgrounds: Social services in nursing homes are responsible for enhancing the emotional and social well-being residents. Little is known about how different models of social service staffing which vary by educational preparedness, and staffing levels, may influence family satisfaction. **Objectives:** The study aims to (1) examine how three models of social service staffing (paraprofessionals only, professional social workers only, and a team comprised of both types of staff) affect family satisfaction, and (2) estimate how satisfaction ratings would change if staffing increases modestly for each model. **Methods:** A dataset was created by linking state-mandated surveys of satisfaction with care from 2012 and 2014 with facility information from the Certification and Survey Provider Enhanced Provider Reports (N=36,326 observations, 2012 and 2014; N=15,602 observations, 2014). A multinomial logit regression examined the effects of each model of social service staffing for the following three single-item outcomes: (1) follow-up with family, (2) treats family with respect, and (3) resident gets the social services they need. Ratings of family satisfaction were measured as follows: Yes, Always, Yes, Sometimes, No, Hardly Ever, and No, Never. **Results:** If every facility had an average level of social service staffing and used the paraprofessional model, 70% of families indicated that staff «always» follow-up, 88.36% of families are «always» treated with respect, and 73.03% of families believed that their resident «always» received the social services they need. If facilities changed staffing to the social worker model, families would have rated significant improvement in their ratings of follow-up and being treated with respect. Trends also suggest that the social worker model would lead to an improvement in residents receiving the social services they need, while the team model would decrease family satisfaction ratings for all three items. Higher staffing, regardless of model, consistently improved family satisfaction for each outcome. **Conclusion:** Families report higher satisfaction when social services are provided through the social worker model, followed by the paraprofessional model. Lower satisfaction ratings found for the team model could be attributable to role confusion. Regardless of model, providers can improve family satisfaction by increasing social service staffing levels.

P9- IMPLEMENTING A BIOPSYCHOSOCIAL APPROACH (TIME) TO PREVENT AND TREAT NEUROPSYCHIATRIC SYMPTOMS IN NURSING HOME RESIDENTS. A QUALITATIVE STUDY. B. Lichtwarck[(1)], J. Myhre[(1)], A. Goyal[(1)], A.M. Mork Rokstad[(2)], G. Selbaek[(1)], Ã. Kirkevold[(1)], S. Bergh[(1)] *((1) Centre for Old Age Psychiatric Research, Innlandet Hospital Trust, Ottestad, Norway; (2) Norwegian National Advisory Unit on Ageing and Health, Vestfold Hospital Trust, Sem, Norway)*

Backgrounds: Nearly all nursing home residents with dementia experience neuropsychiatric symptoms (NPS) during the disease. These symptoms are complex, and pose great challenges for the residents themselves, their relatives, and the staff. A three-month cluster randomized trial to test the effectiveness of the Targeted Interdisciplinary Model for Evaluation and treatment of neuropsychiatric symptoms (TIME), showed significant reduction in agitation (primary outcome), symptoms of depression, disinhibition, delusions, and showed better quality of life in favor of the intervention with TIME. TIME represents a biopsychosocial approach to NPS including a rigorous assessment of NPS, a systematic structured reflection on their causes in case conferences, and the elaboration of a tailored treatment plan. **Objectives:** In this paper, we report from the qualitative part of the trial where we have explored the staff's experiences with TIME and how it meets the challenges when dealing with the complexity of NPS. **Methods:** Six to nine months after the intervention, we interviewed 32 of the caregivers, leaders, and physicians from 11 of the 33 nursing homes participating in the trial, divided into five focus groups. The interviews were transcribed and analyzed based on thematic content analyses where meaningful themes were extracted. **Results:** The analysis yielded three main themes: (1) A systematic reflection method enhanced learning at work; (2) The structure in the approach helped the staff to cope with residents with NPS; (3) An engaged and present leadership is an important facilitator for the implementation. **Conclusion:** The intervention with TIME is a feasible and effective model for dealing with the complexity of NPS. TIME shifts the way of learning for the staff from a traditional to a more innovative and reflection-based learning through a process of learning how to learn at work. This made translation of knowledge into action easier. The staff's trust in their own skills and knowledge when dealing with complex problems increased. An engaged and present leadership facilitates the intervention.

P10- STRENGTHS AND LIMITATIONS OF APPLYING PROSPECT THEORY TO SURROGATE DECISION-MAKING IN THE NURSING HOME SETTING: A QUALITATIVE ANALYSES. M. Bern-Klug *(University of Iowa School of Social WorkIowa City, USA)*

Backgrounds: In part because of cognitive impairment of nursing home (NH) residents, many family members are involved in medical decision-making with or on behalf of the NH resident. Enhancing staff skills in working with families depends, in part, on a better understanding of what factors family members weigh, and how, as they approach medical decision-making especially as the end of life approaches. **Objectives:** Using the concepts inspired by Kahnehan and Tversky's (1979) prospect theory model of decision-making under risk, build understanding of surrogate impressions about which prospects are perceived as potential gains and which as potential losses, as well as what is considered acceptable risk on behalf of the NH resident. **Methods:** Secondary analysis of transcribed personal qualitative interviews with 24 family members of nursing home residents, with a cancer diagnosis in a Midwestern state in the USA. **Results:** Two main themes, well supported by quotes from the transcripts, emerged from the content analysis of the data: Don't prolong this/on borrowed time and A good ending is a gain. Many (but not all) surrogates considered the risk that medical interventions aimed at postponing death might actually result in more pain and suffering for the NH resident, and therefore as too risky a prospect. **Conclusion:** Although prospect theory has not been previously used to study surrogate decision-making, results from this study provide insights into how surrogates perceive risks associated with medical interventions potentially aimed at prolonging life (or postponing death). Concepts can be useful in helping health providers better identify discrepancies in how potential medical interventions are perceived by surrogates and NH residents, and the importance of a shared understanding of goals of care so that interventions can be consider in light of whether they represent a larger potential gain or potential loss for a particular NH resident, at a particular point in his or her life and disease trajectory. The importance of a shared reference point as to the NH residents' current status is discussed.

P11- THE DEVELOPMENT OF INTERNATIONAL MEDICAL PROVIDER- CENTRIC QUALITY INDICATORS FOR POST-ACUTE AND LONG TERM CARE: IMPLICATIONS FOR PRACTICE, POLICY AND RESEARCH. A. Moser Mays[1], D. Saliba[2], P.R. Katz[3], S. Feldman[4], S.A. Hendriks[5], C.M.P.M. Hertogh[6], M. Smalbrugge[5], T.L. Booker[7] *((1) Cedars-Sinai Medical Foundation, USA; (2) Director UCLA/Jewish Home Borun Center for Gerontological Research, Physician Scientist Los Angeles VA GRECC, Senior Natural Scientist, RAND, USA; (3) Professor & Chair, Department of Geriatrics, FSU College of Medicine, (USA); (4) Baycrest Health Sciences; Department of Family and Community Medicine, University of Toronto, Canada; (5) Department of General Practice & Elderly Care Medicine, Amsterdam Public Health research institute VU Medical Center, the Netherlands; (6) Professor of Elderly Care Medicine & Geriatric Ethics Chair, University Network of Organizations for Elderly Care, Department of General Practice & Elderly Care Medicine, Amsterdam Public Health, VU University Medical Center, the Netherlands; (7) Administrative Lead; UCLA/JH Borun Center for Gerontological Research, USA)*

Backgrounds: To demonstrate the added value of the medical provider in the Nursing Home, Quality Indicators (QIs) reflecting steps of care influenced by the medical provider are needed. **Objectives:** The objective of this initiative was to identify QIs germane to the international practice of medical providers (physician and advance practice nurses) in post-acute and long term care. **Methods:** A seven-member international team identified and adapted existing QIs to the AMDA competencies for medical providers in nursing home settings. QI sources included the ACOVE 3 Quality Indicators (2007), Nursing Home Quality Indicators (2004), Nursing Home Residential Care Quality Indicators (2002), the European Heart Rhythm Association Guidelines (2013), and AGS Choosing Wisely (2014). A Technical Expert Panel (TEP) was then convened using a RAND Modified Delphi approach. Panelists provided pre-meeting ratings, discussed items in-person for clarification, and then re-rated items following discussion. Panelists added additional items, generated spontaneously and derived from additional sources, including AMDA Choosing Wisely (2015) and the SGIM-AMDA-AGS Consensus Best Practice Recommendations for care transitions (2016). **Results:** The TEP consisted of eleven panelists selected for their knowledge and leadership in post-acute and long-term care. Representatives from the U.S., Canada and the European Union were included. The team initially presented ninety-six items to the TEP for rating. Panelists confidentially rated items on validity and feasibility of implementation and results were pooled. Pre-meeting, 57 QIs were agreed to be both valid and feasible by panelists. Twenty-one indicators were considered questionable on both characteristics, and 25 QIs were considered valid, but with questionable feasibility. During the meeting candidate QIs were added by the panel. Post-meeting results are being analyzed at time of submission and will be completed before abstract publication. **Conclusion:** This initiative generated a candidate set of quality indicators for medical providers in the nursing home; identifying practices in which provider engagement can add value by employing evidence-based practice, communicating with and advocating for their residents, and interacting and communicating effectively with the interprofessional team. Next steps include piloting these QIs and testing for association between adherence to quality indicators and better performance.

P12- ORGANIZATIONAL AND ENVIRONMENTAL FACTORS ASSOCIATED WITH TRANSFERS OF NURSING HOME RESIDENTS TO EMERGENCY DEPARTMENT. X. Dubucs, P. de Souto Barreto, Y. Rolland *(Gérontopôle de Toulouse, Institut on Aging, Toulouse University Hospital (CHU Toulouse); UMR INSERM 1027, University of Toulouse III, Toulouse, France)*

Backgrounds: Emergency department transfer (EDT) rate of residents from nursing homes (NHs) to emergency department is important and associated with functional decline in older persons. It's an important public health issue. **Objectives:** The purpose of this study was to examine if organizational and geographic factors were associated with EDT rate among older adults living in NHs independently to the resident's characteristics. **Methods:** Retrospective analysis using information of patients' medical charts. Information came from the baseline data of the IQUARE clinical trial. Datas were collected between May and July 2011 from NHs located in southwestern France. 5926 residents from 175 NHs with available datas were analyzed. EDT rate was estimated for each NH, from the number of residents who were transferred in an emergency department (one passage or more) in the previous 12 months. **Results:** 1119 (18.9%, SD = 11.5) residents were transferred to an emergency department. In adjusted multiple linear regression: NHs located in rural areas had an EDT rate significantly lower compared with the ones in urban areas (CI 95% -10.15, -2.16, p=0.003, 16.4 % (SD = 9.1) versus 20.4 % (SD = 12.5)). NHs providing pharmacy for internal (PIU) use was significantly associated with lower EDT rate compared with NHs without PIU (11.9 % (SD = 9.2) ; 19.1 % (SD = 10.1), CI95% -16.33, -3.09, p = 0.004). The implementation of a personalized care project in NH was significantly associated with a lower EDT rate (18.6 % (SD = 11.4), 22.4 % (SD = 12.4), CI 95% -11.67, -0.63, p = 0.03). **Conclusion:** Our study suggests that a structured plan of care, a strategy to improve medication and being located in rural areas reduce the EDT rate of NH's residents.

P13- OLDER ADULT AND FAMILY MEMBER PERCEPTIONS OF LIVING WITH INTELLIGENT SENSORS: QUALITATIVE RESULTS FROM A PROSPECTIVE INTERVENTION STUDY. M. Rantz[1], C. Galambos[2], A. Craver[1], M. Bongiorno[2], M. Pelts[3], J. Sim Jung[4] *((1) Sinclair School of Nursing, University of Missouri, Columbia, Missouri, USA; (2) School of Social Work, University of Missouri, Columbia, Missouri, USA; (3) School of Social Work, The University of Southern Mississippi, Hattiesburg, Mississippi, USA; (4) Wichita State University, Wichita, Kansas, USA)*

Background: Increase Environmentally-embedded intelligent sensor systems offer a feasible, cost-effective, and convenient approach to early illness detection. A perceived drawback to embedded sensor systems is that they might be unwelcome in one's home due to privacy concerns; however, the results of research are mixed in this area. Older adults may be willing to compromise certain levels of privacy in order to remain independent. **Objectives:** The objective of this study was to better understand how an environmentally-embedded sensor system was perceived and experienced by older adults living with the system in long-term care facilities. Our team also sought to understand how the sensor system was perceived by these older adults' family members. **Methods:** From 2013 to 2016, our team conducted a prospective intervention study to measure the effectiveness of using sensor data to detect early signs of illness or functional decline in older adults living in 13 long-term care facilities in Missouri (intervention group = 86; comparison group = 85). Periodic semi-structured interviews were conducted at 5 points in time with 55 study participants (43 female, 12 male, 52

Caucasian, 3 African American) living with the sensors in order to understand their perceptions of the technology's usefulness and its impact on their daily living, health, and privacy. Interviews were also conducted with 13 participants' family members to obtain their impressions of the technology. Using a constant comparative method, researchers independently coded transcripts and conferred to identify themes. **Results:** Participants and family members perceived sensors to be helpful and unobtrusive, and neither group expressed privacy concerns. Both groups were most interested in the system's ability to generate an alert after a fall, and that the participant would receive timely post-fall assistance. The system's benefits were reported to outweigh any diminishment of privacy. Participants were willing to share their sensor-derived health data with family members, health care providers, and researchers. **Conclusion:** The environmentally-embedded intelligent sensor system was well-tolerated, with limited impact on daily living. Privacy concerns were minimal, and were outweighed by the benefits of the sensor system. Future research should focus on the impact of sensor systems across diverse populations.

P14- THE FEASIBILITY OF ROUTINELY MEASURING QUALITY OF LIFE IN CARE HOMES. L. Hughes, S. Daley, N. Farina, N. Tabet, S. Banerjee *(Centre for Dementia Studies, Brighton and Sussex Medical School, England)*

Backgrounds: Current estimates suggest up to 80% of people in care could have dementia or memory impairments. There is increasing concern about the quality of care provided for this group within care homes (CHs) and a lack of consensus about how best to measure quality of care. One approach is the routine measurement of quality of life (QoL). Observational measures exist, however, their use is time consuming and requires specialised costly training. QoL questionnaires developed for dementia are preferable in terms of ease-of-use and cost, but these measures were created for research and clinical purposes, and may not be tailored for use within a CH setting. **Objectives:** To discover if the successful implementation of a QoL measure is possible through understanding the views of care staff about using a QoL instrument and the benefits and challenges this entails. To create a guidance for assisting the implementation of routine measurements of QoL into care practice **Methods:** 35 interviews with staff and two discussion groups with four managers from three CHs in England were conducted. All data were analysed using thematic analysis. **Results:** From the analysis, two overarching themes were identified; Perceived gains and Implementation. Overall there was a great deal of positivity towards using a measure, with a perception that it could provide positive outcomes for staff and CH residents. This positivity and benefit appeared to be an important feature in how staff saw the measure fitting into practice and of overcoming barriers and concerns to implementation. A guide for measuring QoL in CHs was developed from the interview findings and discussion group findings with CH managers. This guidance highlights important points such as staff confidence, flexibility and using existing routines and practices to ensure the successful implementation of a QoL measure. **Conclusion:** The routine measurement of QoL in CHs was seen by staff as a positive activity if implemented successfully. The findings from this study shed new light on the benefits to measuring QoL as a part of care practice and how to work in collaboration with care staff to implement change.

P15- PRELIMINARY VALIDATION OF THE TOULOUSE-SAINT LOUIS UNIVERSITY MINI FALLS ASSESSMENT. J.E. Rouck[(1)], T.K. Malmstrom[(2)], J.E. Morley[(3)] *((1) BS-Saint Louis University School of Medicine, St. Louis, MO, USA; (2) Department of Psychiatry and Behavioral Neuroscience and Division of Geriatric Medicine, Saint Louis University School of Medicine, St. Louis, MO, USA; (3) MB, BCh-Division of Geriatric Medicine, Saint Louis University School of Medicine, St. Louis, MO, USA)*

Backgrounds: Falls are one of the most prevalent health issues facing today's geriatric population and specifically those in nursing homes. The Toulouse-Saint Louis University Mini Falls Assessment (TSLUMFA) is designed to identify patients at risk for falls and identify the specific fall risk factors that a patient is susceptible too. This is the first study attempting to validate the TSLUMFA. **Objectives:** Determine if the Mini Falls Assessment can predict falls and develop cut offs for optimal sensitivity and specificity. Evaluate if the TSLUMFA can better predict falls than the Tinetti Gait and Balance Instrument (TGBI). Use regression analysis to elucidate which factors evaluated by the TSLUMFA are the strongest predictors of falls. **Methods:** This study is a prospective assessment validation study that began in May 2017 and will continue until July 2017. Patients presenting to the SLU Geriatrics Clinic >64 years old are asked to participate in the study. The main outcomes measured are the scores on the two assessments, whether the patients have fallen previously, and whether the patients fall during the three month follow up period (measured by a falls calendar). To date 43 subjects have been evaluated using the TSLUMFA and TGBI. 21.67% (n=9) fell within the past 6 months. 44.2% (n=19) are Black, 41.9% (n=18) are white, and the remaining six are all different races. 81.4% (n=35) live at home and the remaining18.6% (n=9) live with a caretaker. The mean scores of fallers and non-fallers were compared by the T Test (Independent Samples Test). **Results:** There is a statistically significant difference between the mean TSLUMFA score for non-fallers, 21.82+3.128, and fallers,16.78+ 2.333, P<.001. The 95% confidence interval of the difference is 2.782-7.309. There is also a significant difference in mean TGBI scores between non-fallers, 24.15+3.006, and fallers 21.67+3.905, P<.05. The 95% confidence interval of the difference is .057 to 4.904. **Conclusion:** The Toulouse-Saint Louis University Mini Falls Assessment is shown to differentiate between fallers and non-fallers in a small sample size. This study will continue with the goal of recruiting greater than 100 patients in order to fully answer the research objectives.

P16- DOES INPATIENT PALLIATIVE CONSULTATION HELP REDUCE RE-HOSPITALIZATION AAMONG COPD PATIENTS?: A RETROSPECTIVE CHART REVIEW. M.R. Craddick[(1)], M. Rodin[(2)], T.K. Malmstrom[(3)], D. Stoeckel[(4)] *((1) Medical School, SLU SOM, USA; (2) Department of Medicine, Division of Geriatrics, SLU SOM, USA; (3) Department of Neurology and Psychiatry, SLU SOM, USA; (4) Department of Medicine, Division of Pulmonary Medicine and Critical Care, SLU SOM, USA)*

Backgrounds: Chronic obstructive pulmonary diseases (COPD) account for many hospital admissions. Although often treated for presumptive pneumonia, the precipitating event is severe dyspnea and cough. **Objectives:** A previous analysis of inpatient palliative consultations (IPC) found a large proportion of COPD patients. We examine the impact of advice on symptom management and discharge planning on subsequent readmissions among COPD (ICD-10 44.0-44.9) patients stratified by frequency of hospital use following consultation. **Methods:** We compare group demographics among usual care patients defined as one admission between 2009-

2015; multiple readmissions defined as greater than one admission between 2009-2015 but less than 3 admissions in one calendar year; and superutilizers as 3+ admissions in one calendar year. Of these \»superutilizers,\» we identified those who had received an IPC consultation. Outcome measures compare mean LOS, discharge disposition, and readmission among those with or without following an IPC consultation. Evidence of disease severity is based on whether any admission resulted in ICU care. **Results:** Superutilizers are 7.8% of the patients but account for 28.9% of the COPD admissions. Usual patients are: mean age 62.37, mean LOS 10.8 days, mean ICU 4.51 days; multiple readmissions are: mean age 63.53, mean LOS 7.72 days, mean ICU 2.41 days; superutilizers are: mean age 63.34, mean LOS 6.11, mean ICU 1.25 days. IPC patients are: mean age 69.15, mean LOS 12.89 days, mean ICU 6.27 days; non-IPC patients are: mean age 61.63, mean LOS 9.45, mean ICU 3.97 days. **Conclusion:** The \»superutilizers\» are younger and less severely ill, which may reflect health system issues, such as access to medications, primary care management, insurance coverage, or a lack of acute exacerbation management alternatives to the ED. Palliative care was rarely consulted for superutilizers. Rather, correctly in our opinion, IPC is called for older, sicker patients and infrequently for symptom management in less ill patients. We conclude there is a need for an outpatient alternative for pulmonary symptom management for COPD patients.

P17- COMPARING THE BREATH WITH THE CAT QUESTIONNAIRES FOR COPD: A PROSPECTIVE VALIDATION STUDY. K. Huynh, E. Kim, E. Charbek, R.P. Nayak, T. Malmstrom, S. Patolia, J.E. Morley, J.H. Flaherty *(Saint Louis University, St. Louis, MO, USA)*

Backgrounds: Chronic Obstructive Lung Disease (COPD) is the third leading cause of mortality in the United States. Several questionnaires measure health status in COPD patients, including the COPD Assessment Test (CAT). BREATH is a new patient-reported outcome tool developed at Saint Louis University consisting of 6 «yes or no» questions designed to be a simple measure of health status in patients with COPD. **Objectives:** The aims of this study are (1) to determine if there is an association between scores on the BREATH with scores on the CAT, a longer validated tool, and (2) to determine if each tool is associated with geriatric syndromes, as measured by the Rapid Geriatric Assessment (RGA), composed of four smaller questionnaires, SARC-F, FRAIL, SNAQ and RCS, which assess for frailty, sarcopenia, anorexia/weight loss, and cognition, respectively. **Methods:** In this prospective validation study, 56 participants aged 50-89 years old with COPD defined by the GOLD criteria were recruited at the medicine outpatient and inpatient clinics at Saint Louis University between 2016 and 2017. Participants completed the BREATH, CAT, and the RGA. Analysis for Pearson's coefficient between BREATH scores (maximum 6 points) and CAT scores (maximum 40 points) were performed. T-tests were performed to compare BREATH and CAT scores with scores on the 4 RGA questionnaires. **Results:** There was a positive correlation between BREATH and CAT scores (r=0.382, P=0.005). Those with frailty (FRAIL) or sarcopenia (SARC-F) had higher scores on the BREATH and CAT, compared to non-frail (BREATH: MD=2.000, P<0.001; CAT: MD=5.081, P=0.033) or non-sarcopenia (BREATH: MD=2.107, P<0.001; CAT: MD=7.397, P=0.001), respectively. There was a difference in CAT scores for those at risk for cognitive deficits (RCS<6 CAT: MD=6.824, P=0.005) and those who did not. **Conclusion:** Scores on BREATH are positively correlated with scores on CAT, suggesting that BREATH may be a useful tool for measuring health status in patients with COPD. Those who have sarcopenia or frailty syndromes had higher BREATH and CAT scores, reflecting the importance of addressing both conditions in the management of COPD patients. Future research can determine if BREATH is associated with negative outcomes such as loss of independence, mortality, and hospitalization.

P18- IPAD-BASED COGNITIVE-COMMUNICATIVE INTERVENTION FOR A RESIDENT WITH MODERATE DEMENTIA IN A SPECIAL CARE UNIT: AN EXPLORATORY INVESTIGATION. W.A. Postman *(Department of Communication Sciences & Disorders, Doisy College of Health Sciences, Saint Louis University, St. Louis, USA)*

Backgrounds: This exploratory investigation was the first attempt to apply Constant Therapy, an iPad-based software platform targeting cognitive-communicative capacities, to a case of an elderly resident of a Special Care Unit with moderate dementia (Global Deterioration Scale: Stage 5). **Objectives:** Long-term goals for this resident were to enhance cognitive-communicative performance with caregiver assistance as needed, to promote safe participation in activities of daily living, compliance with nursing care, positive and meaningful social interactions with family and peers, and enjoyment of preferred leisure activities. **Methods:** This resident was a Caucasian, English-speaking 83-year-old female referred for new onset of decreased orientation, declining social group participation, and increased incidents of agitation and falls. Short-term objectives addressed attentional capacities and executive functions that were deemed most critical for this residentâ's safety and quality of life: mental flexibility, response inhibition, self-monitoring, visuospatial processing, and visual and verbal memory. Throughout the 6-week course of intervention, during which the resident participated in 12 therapy sessions of 30 to 60 minutes duration, tasks were administered on an iPad through the Constant Therapy platform. They consisted of Matching of Symbols, Pictures and Words; Playing Card Slapjack; Flanker; and Pattern Recreation. **Results:** Comparison of baseline and final scores revealed improved accuracy (83% to 100% on Flanker), response latency (33 msec to 19 msec on Picture Matching), and independence for task completion (moderate to minimum clinician cueing across all tasks). These gains were coupled with increased safety and independence on the Special Care Unit, enhanced adaptation to surroundings, and reduction of negative behaviors. Her improved cognitive-communicative performance was sufficient to warrant a transfer to a non-secure long-term care wing within the same facility. **Conclusion:** These preliminary positive results suggested that this resident achieved a higher degree of functional recovery and superior quality of life than would have been possible with more traditional therapeutic approaches alone. This proof-of-concept demonstration invites formulation of testable hypotheses, which should be pursued in future research on optimizing interventions for institutionalized people with dementia using leading-edge computerized therapies.

P19- EVALUATION OF QUALITY OF LIFE OF NURSING HOME RESIDENTS THROUGH VISUALIZATION OF SLEEPING SITUATION. H. Shimoyama *(DOHO University, Japan)*

Background: Falls Residents of nursing homes are not subjects of acute care, but are in a stable state with chronic phase illness. The number of nursing homes staff is one care worker per three residents. About three or four nurses are placed for 100 residents. From such an arrangement of professionals, the nursing homes in Japan are positioned as welfare facilities. In the nursing homes, retention of remaining capacity is regarded as important. As a philosophy, the

residents are required to do what they can by themselves. However, in reality, they spend lots hours during their day in passive state. Many residents start dozing while they are passive. As a result, some residents can\'t sleep at night. If they are awake in the midnight, sleeping pills will be prescribed. Is the use of hypnotics in this way appropriate? **Objectives:** The purpose of this study was to evaluate QOL of nursing home residents through visualization of sleeping situations. **Methods:** In 2016, one nursing home recorded the sleeping conditions of 10 residents using non-wearable actigraphs for 2 weeks. Looking at the data, staff analyzed the living conditions of residents. And they changed their services. After that, the sleeping situations of the residents were recorded again.Then staff analyzed QOL of residents. **Results:** After dinner, the residents went to bed from 7p.m. to 7a.m. They spent about 12 hours on the bed, but in fact they slept around 6 to 7 hours. Some of them used hypnotics every day. Although they could not sleep immediately after entering bed, they were in bed with care to staff. The residents knew one care worker must look after 20 residents in the evening work. Staff analyzed the data, and found the residents only slept for half times on the bed. Then several residents took time to talk with others after dinner, and when they got to bed around 10p.m., they could have a continuous sleep. **Conclusion:** Visualization of sleeping situations helped staff to improve their services, and was useful for evaluation of QOL of nursing home residents.

P20- STAKEHOLDER PERCEPTIONS OF NURSING HOME CULTURE AND IMPLICATIONS FOR CARE: AN EXPLORATORY CROSS SECTIONAL STUDY. N. Kusmaul *(University of Maryland Baltimore County, USA)*

Backgrounds: Culture is the set of shared beliefs, assumptions, and behaviors experienced by a group bonded together by a common characteristic, such as nationality, religion, or ethnic origin. Like nations, organizations also develop shared cultures. Employees, leaders, and consumers need to understand these cultures to successfully navigate the organization. Staff at different levels of human service organizations experience organizational culture differently (Wolf et al., 2014). In nursing homes, the largest group of employees are certified nursing assistants (CNAs) who provide direct care. In the formal structure, they have limited power to establish the culture, but influence it daily through the ways in which they provide care, which shape the residents' experiences within the nursing home. **Objectives:** The objective of this study was to explore CNA perceptions of organizational culture within and between subgroups of workers. **Methods:** This exploratory study is a secondary analysis of data collected in a larger study exploring CNA life experiences and caring behaviors at nursing homes in the Northeastern United States. This study uses the Nursing Home Survey on Patient Safety Culture (AHRQ, 2009) and a demographic survey created by the author. The analysis focused on differences in the Patient Safety Culture subscales within nursing homes by personal characteristics such as race/ethnicity, primary shift, type of unit, and years as a CNA. Final sample was n=106 CNAs from three nursing homes. **Results:** Overall analysis showed no differences on the scale within groups. However, within subscales, for example, linear regression showed more experienced staff rated management support for resident safety higher (F (1 ,51)= 3.747, p=.058, with an R2 of .068), suggesting that management may ask and listen to senior staff more than newer staff. **Conclusion:** While direct care workers often experience agency culture differently from agency management, this study shows that different workers within the same job title experience it differently as well. This draws attention to the need to address the needs of all staff when considering policy changes that impact their job experience. Differences in perceptions have implications for quality of care and the experiences of residents within the same nursing home.

P21- SHAPING THE WORKFORCE OF THE FUTURE IN LONG-TERM CARE THROUGH BROAD-BASED STAKEHOLDER ENGAGEMENT DESIGNED TO INFORM STRATEGIES TO STRENGTHEN POSITIVE OUTCOMES FOR OLDER OKLAHOMANS AND THEIR FAMILIES. A.W. Cahill *(Univeristy of Oklahoma,USA)*

Backgrounds: The Knee Center Positive Aging Initiative is engaging stakeholders throughout the state on a Workforce of the Future study. This study is designed to identify principal workforce challenges, related solutions, and core inter-professional competencies needed by all working in the field of aging to help Oklahomans age well. The study encompasses the continuum of long-term care, inclusive of home and supported living environments, health, and social services and seeks input from practitioners of multiple disciplines. The need to strengthen the infrastructure responsible for ensuring the safety, health, and well-being of older adults in Oklahoma is evident, particularly when reviewing data from the America's Health Rankings, Senior Report and the Families for Better Care Nursing Home Report Card, which show low performance on a number of indicators and low overall rankings compared to the majority of other states. Additionally, the Centers for Medicare and Medicaid Services calculate that 37% of Oklahoma nursing homes perform «below average» or «much below average» compared to other states. The Initiative and study are in response to the reality that the aging services infrastructure, while having certain strengths, is not currently equipped to help Oklahomans age well. The confounding reality that our society is aging at an accelerated rate, both in numbers and proportion, signals the need for expeditious, data-driven, strategic system focused interventions. **Objectives:** 1) Identify the principal workforce challenges and proposed solutions in the field of aging in Oklahoma; 2) In addition to field specific expertise, identify core, requisite inter-professional competencies needed to help Oklahomans age well. **Methods:** 1) Key informant interviews with policy advisors focused on workforce challenges, solutions, and core inter-professional competencies central to the provision of good long-term care; 2) Online survey with practitioners focused on core inter-professional competencies. **Results:** Results are pending with data collection anticipated to begin in July. **Conclusion:** Researchers will synthesize findings of the initial study components identified above and present preliminary conclusions. Subsequent research components will be further developed as the Initiative and study evolve and strategies under consideration to effect the Workforce of the Future will be discussed.

P22- CLINICAL COMPONENTS ARE KEY TO EFFECTIVELY REDUCING ACUTE CARE TRANSFERS FROM NURSING HOMES. RESULTS FROM A META-ANALYSIS. M.Wilchesky[(1)], Deniz Cetin-Sahin[(2)], O. Lungu[(3)], G. Gore[(4)], B. Gore[(5)], M. Peretti[(2)], P. Voyer[(6)] *((1) Department of Family Medicine, McGill University, Montreal Canada; (2) Donald Berman Maimonides Centre for Research in Aging, Montreal, Canada; (3) Department of Psychiatry, Université de Montréal, Montreal, Canada; (4) Schulich Library of Science and Engineering, McGill University, Montreal, Canada; (5) Dip Epid, Donald Berman Maimonides Geriatric Centre, Montreal, Canada; (6) Faculté des Sciences Infirmières, Université Laval, Québec, Canada)*

Backgrounds: Potentially avoidable acute care transfers (ACT) are associated with significant iatrogenic events, such as delirium, nosocomial infections, pressure ulcers, functional decline, invasive

interventions, and death in hospital. One third of nursing home (NH) transfers to emergency departments are admitted to hospital, and about 65% of these hospital admissions (HA) are avoidable. Several interventions seeking to reduce ACTs have been proposed, yet there is a lack of systematic evidence regarding their effectiveness. **Objectives:** To estimate the effectiveness of interventions aimed at reducing ACTs in the event of an acute or complex changes in NH resident health. **Methods:** A systematic mixed studies review was conducted that included original quantitative and mixed methods studies pertaining to interventions for NH residents aged 65 and older. The literature was searched from inception to July 2016 from MEDLINE, CINAHL, EMBASE, Social Work Abstracts, and other relevant databases. Forward and backward citation tracking techniques were employed, and grey literature was reviewed. A random-effects model meta-analysis was performed for each outcome (reduction in ED transfer and HA rates per 100 resident-days). **Results:** 57 studies were included. A majority (82%) of interventions involved multiple components targeting a variety of transfer-related factors. 17 studies provided 26 usable samples pertaining to ED and/or HA rates. A significant reduction in transfer rates was observed (rate ratio RR=0.81; 95%CI=0.73-0.89; overall effect Z=4.29, p=0.0001 for ED and RR=0.69; 95%CI=0.57-0.84; overall effect Z=3.66, p<0.0002 for HA), despite high statistical heterogeneity in the latter (I2>95%). Studies employing before-after or two groups pre-post designs did not show significant reductions. Most studies used proxy measures for ACTs [e.g., number of emergency calls, place of death (hospital vs NH), costs] preventing them from being included in the meta-analysis. **Conclusion:** Although clinically heterogeneous, interventions that include clinical components are effective at reducing ACTs and have the potential to improve the quality of care received by NH residents. More studies using standardized outcome measurements and data reporting are warranted for better estimates of the effectiveness of specific intervention types.

P23- PHARMACOLOGICAL VS. NON-PHARMACOLOGICAL MANAGEMENT STRATEGIES FOR NURSING HOME RESIDENT NEUROPSYCHIATRIC SYMPTOMS: THE ROLE OF STAFF PREFERENCES, PERCEIVED EFFECTIVENESS AND SOCIAL ATTRIBUTIONS.

M. Wilchesky[(1)], M.A. Bruneau[(2)], P. Voyer[(3)], P. Landreville[(4)], M. Peretti[(5)], O. Lungu[(6)] *((1) Department of Family Medicine, McGill University, Montreal, Canada; (2) FRCPC, Centre de recherche de l'Institut universitaire de gériatrie de Montréal, Montréal, Canada; (3) Faculté des Sciences Infirmières, Université Laval, Québec, Canada;(4) Ecole de Psychologie, Université Laval, Québec, Canada; (5) Donald Berman Maimonides Centre for Research in Aging, Montreal, Canada; (6) Department of Psychiatry, Université de Montréal, Montreal, Canada)*

Backgrounds: Management of Neuropsychiatric symptoms (NPS) in nursing home (NH) residents with dementia represents a significant challenge. NPS (e.g. agitation/aggression, anxiety) are non-cognitive manifestations of dementia that are highly prevalent in this population (median prevalence: 78%). Symptoms result in behavior instability, which in turn impacts upon resident safety and mortality risk. Clinical guidelines recommend the use of non-pharmacological strategies (NPhS) for NPS management, except in cases where symptoms pose a danger to the residents or others. Research examining nursing staff attitudes towards these guidelines is lacking. This represents a clear knowledge gap given that social cognition studies imply that staff actions may be influenced by sociocognitive factors, such as their personal preferences and social attributions (i.e. beliefs about what causes behaviors in others). **Objectives:** To assess NH nursing staff NPS social attributions, their preferences, perceptions and reported use of different NPS management strategies and the association between these variables. **Methods:** In the current cross-sectional study, 63 nursing staff from two large NHs (total 707 beds) were interviewed. A questionnaire was developed using symptom descriptions within the Neuropsychiatric Inventory-NH version, that assessed social attributions of nine NPS (delusions, hallucinations, aggression/agitation, irritability, disinhibition, depression, anxiety, apathy, and aberrant motor behaviors). It also assessed NH staff perceptions (preference, perceived effectiveness) and reported use of NPhS. Statistical analyses assessed the extent to which reported use of medication vs. NPhS (main outcome) depended on nursing staff perceptions, social attributions, and other variables. **Results:** Medication was preferred less and reportedly used less than NPhS for 6 (67%) NPS (delusions, irritability, disinhibition, anxiety, apathy and aberrant motor behaviors), in concordance with clinical guidelines ($p<0.05$, Bonferroni-Holm corrected for multiple-testing). For these symptoms, the perceived effectiveness of different management strategies was the strongest predictor of reported use, controlling for staff preferences. With one exception (agitation/aggression), social attributions were not significantly associated with other variables. **Conclusion:** Our results suggest that: (1) NH staff have preferences and perceptions that are conducive to adherence with NPS clinical management guidelines; and (2) future NPS management training programs should consider targeting specific sociocognitive factors such as perceived effectiveness of, and preference for NPhS, and in some cases, their social attributions of resident symptoms.

NOTES:

NOTES: