

$P = .009$ ). In somatic wards, better multidisciplinary collaboration was associated with a higher likelihood of staff members recommending the ward ( $P = .028$ ). In psychogeriatric wards, a lower score on market culture ( $P = .019$ ), better communication/coordination ( $P = .018$ ) and better multidisciplinary collaboration ( $P = .003$ ) were significantly associated with better staff-reported QoC. Direct care staffing levels, adhoc culture, hierarchy culture, as well as role model availability were not significantly related to staff-reported QoC.

**Conclusion:** Team climate was the only factor consistently associated with staff-reported QoC and seems an important factor to consider when improving QoC. Nevertheless, generating more evidence on which work environment characteristics actually lead to better QoC is desirable.

#### F7-S148 Symposium

##### Early identification and prevention of complications

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**Introduction:** Early identification of persons at risk for functional decline may contribute to improve care for older patients. Additionally, several steps can be taken to prevent onset and adverse outcomes if identification is followed by a comprehensive (geriatric) assessment and targeted interventions.

The first presentation shows the evidence for a complex nursing intervention that effectively reduce postoperative depression, infection and postoperative pulmonary complications in older elective cardiac surgery patients.

The second presentation shows whether non-task specific fatigue is a long-term risk factor for IADL-limitations and/or mobility limitations in older adults.

The third presentation shows factors influencing the underlying process of exacerbation-related self-management behavior in patients with chronic obstructive pulmonary disease.

The fourth presentation shows an exploration of the feasibility of the home-instrument in the early recognition of health problems in community-living elderly and the experiences of home care employees.

The fifth presentation shows the feasibility and sustainability of the post stroke depression-toolkit for detection of depression in the early stage of stroke.

**Aim of the symposium:** After attending this session, participants will be able to: 1) define strategies to prevent decline in patients, and 2) discuss what is needed to achieve optimal care that is based on frail people's needs.

##### Development and feasibility of the PREDOCS-programme, following the guidelines of the MRC

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**Aim:** In older patients undergoing elective cardiac surgery, timely identification and preparation of patients at risk for frequent postoperative hospital complications provides for the opportunity reducing their risk. We developed an evidence based multi component nursing intervention (PREDOCS-programme) to improve patients' physical and psychosocial condition in order to reduce their risk on post-operative complications and we tested the PREDOCS-programme on its feasibility and estimated theoretical cost savings

**Material and methods:** In a team of researchers, experts, cardiac surgeons, cardiac surgery nurses and patients, the first phase of the revised guidelines for developing and evaluating complex interventions of the Medical Research Council (MRC) were followed. Subsequently, in a mixed-methods multicentre study, following the second phase of the MRC guidelines, we tested the feasibility in three hospitals and calculated theoretical cost savings.

**Results:** PREDOCS-programme is administered during a consult by the nurse, 2–4 weeks before the surgery procedure. Twenty one females and 49 males out of the 114 eligible patients completed the intervention. Patients were equally satisfied with the usual care and the PREDOCS-programme (satisfaction rate respectively: 7.5 (95%CI: 6.4–8.7) and 7.6 (6.6–8.6)). The involved nurses were satisfied with the tools for guiding patients to reduce their risk of postoperative complications and considered the PREDOCS-programme as complementary to usual care. Integrating PREDOCS into current hospital structures appeared to be difficult. The PREDOCS-programme will be cost-effective when postoperative complications are prevented in six to sixteen of 1000 cardiac surgery patients.

**Conclusions:** In creating transparency in the assumed working mechanisms, an extended stepwise multi-method procedure was used to develop the PREDOCS-programme which is acceptable for patients and nurses but should be built into the hospital's cardiac surgery pathway.

##### Is fatigue a long-term risk factor for IADL and/or mobility limitations 10 years later?

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**Background:** Decline in the performance of instrumental activities of daily living (IADL) and mobility may be preceded by symptoms the patient experiences, such as fatigue. The aim of this study is to investigate whether non-task specific fatigue is a long-term risk

factor for IADL-limitations and/or mobility limitations in older adults.

**Material and methods:** A prospective study from two previously conducted cross-sectional studies with 10 years follow-up was conducted among 285 males and 249 females aged 40–79 at baseline. Fatigue was measured by asking “Did you feel tired within the past 4 weeks?” (males), and “Do you feel tired?” (females). Self-reported IADLs (8 items) were assessed using the modified Stanford Health Assessment Questionnaire at baseline, and the modified KATZ-15 questionnaire at follow-up. The 6-minute walk test was used to assess mobility. Gender-specific multivariable logistic and linear regression models were used to assess the associations between fatigue and IADL-limitations and mobility.

**Results:** Males with fatigue were slightly younger compared to those without ( $57.2 \pm 11.3$  vs.  $58.6 \pm 10.8$  years), whereas females with fatigue were slightly older than those without ( $66.0 \pm 3.8$  vs.  $65.5 \pm 3.7$  years). After adjustment for confounders, the odds ratio (OR) for males with fatigue developing IADL limitations was 3.27 (95% CI 1.18; 9.10) compared to those without ( $P = 0.023$ ). In females, the association was less strong and not statistically significant ( $P = 0.175$ ); OR = 1.61 (95% CI 0.81; 3.21). After adjustment for confounders, males with fatigue walked a 39.12 (95% CI –77.83; –0.41) meters shorter distance than those without ( $P = 0.048$ ). For females with fatigue, the distance was 17.46 (95% CI –67.90; 32.98) meters shorter compared to those without; the association was not statistically significant ( $P = 0.479$ ).

**Conclusion:** Non-task-specific fatigue appears to be a long-term risk factor for IADL-disability and mobility limitations in older males but possibly not in females.

##### Feasibility of home-instrument in early recognition of health problems in community-living elderly

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**Background:** In the aging population community home care becomes an important part of health care. Medication use in Dutch adults aged 75 and older is five times higher than in the general population. Besides positive health outcomes of medication, several risk factors (i.e. polypharmacy, multiple comorbidities, non-adherence, and impaired cognition) may result in medication-related problems and hospital admissions. This study aims to evaluate the feasibility of the Home care Observation of Medication-related problems by home care Employees (HOME) instrument and the experiences of home care employees and a pharmacist.

**Material and methods:** A pretest-posttest design was used. To determine the amount and type of medication-related problems,

home care employees filled in the amount and type of medication-related problems twice, in the beginning and at the end of the pilot. During the pilot, October–November 2014, the HOME-instrument was used as a smartphone application by one team of a Dutch home care organization (12 home care employees) and one pharmacy. Subsequently, interviews were conducted with home care employees and the pharmacist to evaluate their experiences.

**Results:** A total of 51 elderly received home care. About half of the elderly (26) received care in medication tasks. The amount of medication-related problems increased from four (beginning of the pilot) to 30 (end of the pilot). The type (and amount) of the observed symptoms after the pilot include: pain (7), thick legs/feet (5), organizing medicines (littering) (3), fall without apparent cause (3), client acts unusual (2), absence of medication list (2), medication intake (2), nose bleeding (1), heart palpitations (1), nausea/vomit (1), other (3: rash, weight loss in combination with thick ankles, symptoms of flu). Home care employees were satisfied regarding the instrument and an increased cooperation between home care and the pharmacy was experienced.

**Conclusions:** The number of reported symptoms of medication-related problems increased considerably, furthermore the cooperation between care employees and the pharmacist improved. The preliminary results show that the HOME-instrument is feasible for the recognition of the first symptoms of medication-related problems in community-living elderly.

A second pilot with this study design has been initiated (October 2015) and ending in May 2016. In total 15 teams of three Dutch home care organizations and several general practitioners and pharmacists are involved. Results will be expected in July 2016.

**Factors influencing exacerbation-related self-management behavior in patients with COPD** YJG Korpershoek<sup>1,2</sup>, SCJM Vervoort<sup>2</sup>, LIT Nijssen<sup>2</sup>, MJ Schuurmans<sup>1,2</sup> and JCA Trappenburg<sup>2</sup>

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**Background:** In patients with Chronic Obstructive Pulmonary disease (COPD) self-management skills are important to reduce the impact of exacerbations. However, detection of exacerbations appears to be difficult for patients which subsequently results in inadequate self-management actions. Little is

known about factors influencing exacerbation-related self-management behavior. Therefore, the objective of the current study was to identify and explain factors influencing patients' perspectives on exacerbation-related self-management necessary for development of future tailored self-management interventions.

**Material and methods:** A qualitative study was performed using semi-structured in-depth interviews. Interviews were audiotaped, transcribed verbatim and analyzed according to the Grounded Theory approach following a cyclic process in which data collection and data analysis alternated. Fifteen mild to very severe COPD patients (8 men; age range 58–88) were recruited from primary and secondary care settings near Utrecht, the Netherlands, in 2015.

**Results:** Several patterns in exacerbation-related self-management behaviour were observed. Perceived severity of symptoms, acceptance of COPD, experience with exacerbations, knowledge and social support were important factors influencing the underlying process of exacerbation-related self-management behaviour. Specific barriers with regard to recognition of exacerbations were heterogeneity in exacerbations and habituation to symptoms. Feelings of fear, patient belief, hope, an avoiding coping strategy and a sub-optimal relationship with healthcare professionals were identified as barriers for self-management actions. Patients who performed prompt actions were generally more pro-active and self-empowered.

**Conclusion:** This study has provided in-depth insight into factors influencing the underlying process of exacerbation-related self-management behavior in COPD patients. In future development of self-management interventions, factors influencing the process of exacerbation-related self-management should be taken into account. Furthermore, special attention should be paid to elimination of barriers in the process of exacerbation-related self-management to be able to develop effective self-management interventions that fit patients' perceptions, capabilities and needs.

**Detection of depression in the early stage of stroke: the Post Stroke Depression-toolkit**

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**Background:** Early screening, detection, and therapeutic interventions for post stroke depression (PSD) are important to reduce the impact on rehabilitation outcome<sup>1–3</sup>. Guidelines regarding the management of stroke recommend the structural screening of depression post stroke<sup>2,4</sup>. Implementing clinical practice guidelines into clinical practice, however, is difficult<sup>5</sup>. Nurses state that they need recommendations provided in a more practical form to be able to use them in daily care. Therefore, we developed a toolkit including screening of PSD and nursing interventions and tested it on its feasibility and sustainability in daily nursing care.

**Primary objective:** to investigate the feasibility and sustainability of the PSD-toolkit in the daily nursing care in hospital.

**Secondary objectives:** 1) to enhance the implementation of the PSD-toolkit by gaining insight into aspects that determine a successful implementation of the toolkit, 2) to increase the expertise and skills of nurses regarding PSD.

**Material and methods:** *Study design:* A concurrent embedded strategy of mixed methods, pre-test post-test design, in which qualitative data are embedded in a quantitative design.

*Population:* Nurses working on the participating neurological wards.

*Main study parameters:* The percentage of patients screened on PSD and the percentage of patients with a positive screening in which nursing interventions are used.

*Secondary study parameters:* Nurses' perceived barriers and facilitators to provide PSD-care. Patients' perception on nursing care according to the PSD-toolkit.

The clinical utility of the PSD-toolkit.

The level of expertise of nurses concerning PSD.

**Results:** *Main results to date:* 150 nurses were included in the study, data on the use of the PSD-toolkit on 1100 patients were collected, 30 nurses were interviewed, 3 focus groups were organized, patients perception on the PSD toolkit was investigated ( $n = 40$ ) and the use of the PSD-toolkit in daily practice was examined by participant observation ( $n = 47$ ).