

Thursday June 9, 15:45-17:00

Parallel session 3

Aging

Chairs: Maartje Belt & Miriam Haaksma

- 15:45 Recovery of daily functioning and quality of life in post-COVID-19 patients in geriatric rehabilitation (O31)
Miriam Haaksma
- 16:00 Do chronic diseases moderate the association between psychosocial working conditions and work exit? Longitudinal results from 55,950 Dutch workers (O32)
Sander van Zon
- 16:15 Sex-specific patterns and lifetime risk of multimorbidity in the general population: a population-based cohort study (O33)
Premysl Velek
- 16:30 The sex difference in self-rated health among older migrant adults in the Netherlands: How do risk factors contribute? (O34)
Lena Sialino
- 16:45 U-shaped relation between serum potassium and risk of kidney replacement therapy or death in predialysis patients (O35)
Esther de Rooij

O31. Recovery of daily functioning and quality of life in post-COVID-19 patients in geriatric rehabilitation.

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Background: Geriatric Rehabilitation (GR) is a multidimensional approach to optimize functional capacity, promote activity and preserve functional reserve and social participation in older people with disabling impairments. After COVID-19 infection with possible Intensive Care admission, frail older adults may benefit from GR. However, little is known about functional recovery and quality of life (QoL) of post-COVID-19 patients during and after GR.

Methods: An international longitudinal multicenter study in >60 rehabilitation centers across 10 European countries. Patients' characteristics, medical history, symptoms, functional status (Barthel Index; BI), QoL (EQ-5D-5L, range: 0-100), frailty and length of stay were abstracted from medical records of GR facilities. At GR admission, the premorbid BI was collected and follow-up measures were obtained by telephone at 6 weeks, and 6 months after discharge. We use linear mixed models to examine the course of functional recovery from admission to 6 months after discharge.

Results: 730 patients were included with a median (IQR) age of 76 (69-83) years; 300 of these were from the Netherlands. Median (IQR) length of stay in GR was 25 (6-38) days and 75% of patients were discharged home. On average, patients' daily functioning recovered during GR up to their premorbid status and this recovery was sustained up to 6 months post-discharge. The EQ-5D-5L VAS score increased from 51 to 68 at admission and 6 months post-discharge respectively ($\Delta=17\%$). Given the large heterogeneity of GR settings and baseline characteristics across the participating countries, these overall results suffer from regression to the mean. However, the observed recovery pattern was comparable across all countries.

Conclusion: Post-COVID-19 patients recovered well in terms of daily functioning and QoL during and after GR. Currently study follow-up is ongoing and we will be able to show more detailed results, including which factors are associated with recovery, in June.

O32. Do chronic diseases moderate the association between psychosocial working conditions and work exit? Longitudinal results from 55,950 Dutch workers.

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Background: Studies have found indications that associations between psychosocial working conditions and work exit may differ for workers with and without a chronic disease. This study aims to examine whether the presence of chronic diseases or multi-morbidity moderates the associations between psychosocial working conditions and work exit through unemployment, work disability or early retirement.

Methods: Lifelines data (n=55,950) were enriched with monthly information on employment status from Statistics Netherlands. Psychosocial working conditions were measured with the Copenhagen Psychosocial Questionnaire. Participants were classified as having no chronic disease, one chronic disease, or multi-morbidity. Longitudinal cause-specific Cox proportional hazard regression models were used to analyze associations between psychosocial working conditions and work exit. Interaction terms were used to examine moderation by chronic disease status.

Results: Associations between psychosocial working conditions and work exit were generally not moderated by workers' chronic disease status. Regardless a workers' chronic disease status, higher social support was associated with a lower risk for unemployment (HR: 0.80; 95% CI: 0.77, 0.84), work disability (HR: 0.87; 95% CI: 0.79, 0.96), and early retirement (HR: 0.91; 95% CI: 0.83, 0.99). More possibilities for development was associated with a lower risk for unemployment (HR: 0.90; 95% CI: 0.86, 0.95) and work disability (HR: 0.88; 95% CI: 0.78, 0.99), and higher meaning of work with a lower risk for unemployment (HR: 0.80; 95% CI: 0.76, 0.83). Only among workers with multi-morbidity, high work pace was borderline associated with unemployment (HR: 1.30; 95% CI: 0.99, 1.70) and higher meaning of work with a lower risk for work disability (HR: 0.87; 95% CI: 0.79, 0.96).

Conclusion: While efforts to retain workers with a chronic disease in the labor market should continue, good psychosocial working conditions are important for all workers. Additional focus on work pace and meaning of work may benefit workers with multi-morbidity.

O33. Sex-specific patterns and lifetime risk of multimorbidity in the general population: a population-based cohort study.

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Background: Multimorbidity poses a major challenge for care coordination. However, data on what non-communicable diseases most often lead to multimorbidity, and whether the lifetime risk differ between men and women are lacking. We determined sex-specific differences in multimorbidity patterns and quantified sex-specific lifetime risk of multimorbidity in general population.

Methods: We followed 6,094 participants from the Rotterdam Study older than 45 years for occurrence of ten diseases (cancer, coronary heart disease, stroke, chronic obstructive pulmonary disease (COPD), depression, diabetes, dementia, asthma, heart failure, parkinsonism). We visualised participants' trajectories from a single disease to multimorbidity, and the most frequent combinations of diseases. We calculated sex-specific lifetime risk of multimorbidity, considering multimorbidity involving only somatic diseases, and involving depression.

Results: During 23 years of follow-up (1993-2016, 63,130 person-years), we observed 6,334 disease events. The most frequent pair of co-occurring diseases among men was COPD and cancer (119 participants), the most frequent pair of diseases among women was depression and dementia (142 participants) (<https://frenkxs.shinyapps.io/SHIFT-upset>). The lifetime risk of multimorbidity was similar among men (66.0%, 95% CI: 63.2-68.8%) and women (65.1%, 95% CI: 62.5-67.7%), yet the risk of multimorbidity with depression was higher for women (30.9%, 95% CI: 28.4-33.5%, vs. 17.5% , 95% CI: 15.2-20.1%).

Conclusion: Over 60% of people over 45 years will develop multimorbidity in their remaining lifetime, with women at nearly twice as high risk of multimorbidity involving depression. Programmes of integrated care should consider multimorbidity involving depression to ensure they serve equally both women and men.

O34. The sex difference in self-rated health among older migrant adults in the Netherlands: How do risk factors contribute?

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Background: Self-rated health forms an important aspect of healthy ageing, as it encompasses one's individual health judgement and is associated with various health outcomes. Having a migration background and being a women are both predictors for poor self-rated health among adults. However, whether there is a sex difference in self-rated health among older migrant adults and which risk factors contribute, remain both unstudied. This knowledge might identify starting points for prevention strategies aimed to enhance healthy ageing among older migrant adults in the Netherlands.

Methods: Cross-sectional data from Turkish-Dutch and Moroccan-Dutch older adults (55-65 years) collected in 2012 from the Longitudinal Aging Study Amsterdam (LASA) were used. Self-rated health was measured by a single item on experienced health of the SF-36, dichotomized as poor versus good. Univariate logistic regression analysis was used to investigate the sex difference in self-rated health and the contribution of 1) sex differences in sensitivity (p-value interaction term factor*sex) and/or 2) exposure (percentage change of the sex difference when adjusted for) to risk factors of poor self-rated health.

Results: There is a significant sex difference in self-rated health among older Turkish-Dutch and Moroccan-Dutch adults, where women have a 0.53 (95%CI: 0.40-0.82) times lower odds on good self-rated health compared to men. In general, men and women had similar risk factors for poor self-rated health. However, women more often being lower educated, living alone and having more depressive symptoms, visual difficulties, chronic diseases and functional limitations contributed significantly to the observed sex difference in self-rated health.

Discussion: Mostly a higher exposure (prevalence) to risk factors of poor self-rated health contributed to the observed sex difference in self-rated health, were socio-demographic and especially health-related risk factors played a role. Future research and prevention strategies should take these sex differences among migrant older adults into account.

O35. U-shaped relation between serum potassium and risk of kidney replacement therapy or death in predialysis patients.

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Background: Hypo- and hyperkalemia can induce sudden cardiac death. However, little is known about serum potassium as modifiable risk factor for replacement therapy (KRT) or death in older predialysis patients. Therefore, we investigated this relationship in incident predialysis patients ≥ 65 y to explore whether there is an optimal serum potassium level.

Methods: We included 1686 patients (≥ 65 y) from the European Quality (EQUAL) Study. Patients were followed from their first eGFR < 20 ml/min/1.73m² until KRT, death, or 5 years. Serum potassium was obtained at 3 to 6-month intervals and divided into six categories: ≤ 4.0 , > 4.0 - ≤ 4.5 , > 4.5 - ≤ 5.0 (reference), > 5.0 - ≤ 5.5 , > 5.5 - ≤ 6.0 and > 6.0 mmol/L. Using Cox proportional-hazards models with time-dependent serum potassium category, hazard ratios (HRs) for KRT or death were calculated, adjusted for baseline age, sex, diabetes, cardiovascular disease, eGFR and subjective global assessment (SGA). We studied the non-linear relationship between continuous time-dependent serum potassium and KRT or death using restricted cubic splines.

Results: At baseline, mean age was 76 ± 7 years, 65% were men, 43% had diabetes, 47% cardiovascular disease, mean eGFR was 17 ± 3 ml/min/1.73m² and SGA 6.0 ± 1.0 . Mean serum potassium was 4.6 ± 0.6 mmol/L. Potassium category prevalence was: 16%, 27%, 33%, 18%, 5% and 1%, respectively. During 5 years, 591 (35%) started KRT and 392 (23%) died. Adjusted HRs (95% CI) for KRT or death according to the potassium categories were: 1.5 (1.1-1.9), 1.2 (0.9-1.6), 1 (reference), 1.2 (0.9-1.6), 1.6 (1.1-2.3) and 2.5 (1.4-4.4). Restricted cubic splines indicated an optimum level of about 5.0 mmol/L.

Conclusion: We found a U-shaped relation between serum potassium and the combined outcome KRT or death in incident predialysis patients, with an optimal level of about 5.0 mmol/L. This relatively high optimal level may imply cautious use of potassium-lowering therapy and low potassium diets in predialysis patients.