CVD biomarkers. We conducted a study in Russia to explore the association between levels of heavy alcohol consumption on biomarkers of cardiac damage.

**Methods** The Know Your Heart study recruited and medically examined a random sample of 2354 participants from the general population of Arkhangelsk city (NW Russia) plus 271 participants from the Regional Psychiatric hospital alcohol treatment facility with a primary diagnosis of alcohol problems. Measurements were made of (i) high sensitivity Troponin T (hsTroponinT), a marker of cardiac damage, (ii) N-terminal pro-B-type natriuretic peptide (NT-Pro-BNP), a marker cardiac wall stretch, and (iii) high sensitivity C-reactive protein (hsCRP), a marker of systemic inflammation. Their concentrations were compared between the patients from the alcohol treatment facility and the general population sample divided according to levels of harmful/hazardous drinking. The associations between heavy alcohol use and log-transformed biomarkers were estimated using multivariate linear regression models adjusted for directed acyclic graphs specified minimal sufficient set of confounders: age, sex, smoking and education.

**Results** Those in the alcohol treatment facility had the highest levels of all three biomarkers relative to non-hazardous drinkers in the general population: hsTroponinT was elevated by 10.3% (95%CI: 3.7%, 17.4%), NT-Pro-BNP - by 46.7% (95%CI: 26.8%, 69.8%), hsCRP - by 69.2% (95%CI: 43%, 100%). NT-Pro-BNP was also elevated, but to a smaller degree, for harmful drinkers in the general population – by 31.3% (95%CI: 3.4, 67.2). A trend test across categories of drinkers was significant for NT-Pro-BNP and hsCRP with concentration of biomarkers going up with higher levels of alcohol exposure (p<0.001).

**Conclusion** The key finding is that NT-Pro-BNP was raised in both patients in the alcohol treatment facility and among harmful drinkers in the general population. This biomarker of pathological wall stress is a predictor of CVD events. This consistent finding in the two groups supports the hypothesis that heavy alcohol drinking has an adverse effect on cardiac structure and function and may thus lead to increased risk of CVD. However, the importance for CVD of the marked elevation of hsCRP in the alcohol treatment group is less clear.
with fall prevalence and frequency, respectively. Adjustments were made for sex, height, BMI, socioeconomic position, physical activity, smoking, knee pain, diabetes, cardiovascular events and respiratory and depressive symptoms.

**Results** Women reported higher prevalence of falls than men at ages 60–64 (23% vs 14%) and 68 (26% vs 18%). Longer balance time at age 53 was associated with reduced odds of falling at age 60–64 [OR: 0.98 (95% CI: 0.97,1.00)]; similar associations were found between balance at age 60–64 and falls at age 68 [0.96 (0.93,0.99)]. Better balance at age 53 was associated with lower risk of 3 or more falls (vs no falls) at ages 60–64 [RRR: 0.88 (0.80,0.98)] and 68 [0.93 (0.88,0.97)]. Better balance at age 60–64 was also associated with lower risk of 3+ falls at age 68 [RRR: 0.92 (0.85,0.98)] and in addition was associated with lower risk of 1–2 falls [0.97 (0.94,1.00)]. These associations remained after adjustments.

**Discussion** Poorer balance at ages 53 and 60–64 was associated with subsequent fall risk. Balance at age 53 was most strongly associated with 3 or more falls, while balance at age 60–64 was associated with both 1–2 and 3+ falls. Whether this is due to stronger associations at age 60–64 or a shorter time between balance and falls assessments requires further investigation. Balance tests in middle age may help identify high risk individuals who would benefit from earlier interventions to prevent future recurrent falls.

**OP23 IS THE INCREASE IN SOCIAL INEQUALITIES IN INFLAMMATION WITH AGE UNDERESTIMATED IN CONVENTIONAL LONGITUDINAL ANALYSES? SOCIOECONOMIC POSITION AND REPEATED SYSTEMIC INFLAMMATION IN OLDER ADULTS LIVING IN ENGLAND**

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**Background** Although social inequalities in health are consistently observed across the lifecourse in different populations, there are methodological issues in describing whether these inequalities decrease in later life. The association between socioeconomic adversity and systemic inflammation is well documented in cross-sectional studies, however, the association between living in socioeconomic disadvantage and repeated systemic inflammation in older adults has not been examined in detail, particularly taking into account longitudinal patterns of missingness. Inference from longitudinal analyses of ageing populations is susceptible to biases arising from attrition and non-random dropout. The accumulation of drop-outs over several waves reduce the representativeness of the study population and certain subpopulations can be over or under-represented in the sample.

**Methods** 4,574 men and women aged 52 years and older from the English Longitudinal Study of Ageing (ELSA) wave 2 onwards were analysed. ELSA is a prospective cohort study that is representative of the English population. C - reactive protein levels were measured in waves 2, 4, 6, and 8 (2004–2016). Latent growth curve models estimated the relationship between different measures of socioeconomic position (education, wealth, and social class) and C - reactive protein, compensating for missing data under different assumptions; complete case analysis, full information maximum likelihood, multiple imputation, Diggle-Kenward selection model, and pattern-mixture model. All models were adjusted for gender, age, ethnicity, and marital status.

**Results** At baseline in wave 2, we found differences between the most and least affluent categories of socioeconomic position. Participants with foreign or no qualifications (0.16 log (mg/l), 95% CI 0.09–0.23), participants in the lowest wealth tertile (0.24 log(mg/l), 95% CI 0.16–0.32), and participants in manual occupations (0.13 log(mg/l), 95% CI 0.07–0.19) had increased levels of C-Reactive protein compared to the most advantaged categories of education, wealth, and social class. Although, C - reactive protein levels decreased in later waves, the differences between the most and least socioeconomic advantaged groups remained large. Furthermore, differences between the Diggle-Kenward and other methods for compensating for missing data suggest that the missing completely at random and missing at random analyses underestimated socioeconomic differences in C-Reactive protein.

**Conclusion** This study demonstrates that living in socioeconomic disadvantage is associated with higher C - reactive protein levels over time and that the social discrepancies in health between the most and least affluent socioeconomic groups persist at older ages. It also highlights the importance of compensating for missingness in longitudinal studies with ageing participants who are susceptible to non-random drop out.