

**Proposal for a Symposium Presentation
For the 11th Health Services and Policy Research Conference,
December 2019 in Auckland, NZ**

Symposium Description (248 words out of 250 max):

OPPORTUNITIES FOR STUDYING A COMMUNITY POPULATION OF AUSTRALIAN SENIORS

Symposium Lead: Professor Jane Banaszak-Holl, Monash University School of Public Health and Preventive Medicine

Rationale for Symposium: This symposium proposes to describe data on the changing health conditions of Australian seniors available from the ASPREE-ALSOP cohort project that can potentially address a range of HSR questions on access to and use and quality of services for the aged.

Description:

We will present examples of health service research projects using one of the world's largest and most detailed cohorts of community-dwelling seniors---16,700 Australians relatively healthy and aged 70 and over when enrolled in the **ASP**irin in **R**educing **E**vents in the **E**lderly (ASPREE) trial and who will be followed prospectively for 11 years overall. These data are unique in the breadth of demographic, socio-economic and health data collected, in the original trial and through the ALSOP substudy, which expanded collection of personal, medical and social data. These elements include socio-demographics, family and personal medical history including clinical episodes, lifestyle factors, quality of life, and medication intake. Participants were assessed routinely for cognitive and physical functioning and disability and underwent clinical measurements of body composition, grip strength, blood pressure, as well as all information on hospitalisations. ALSOP expanded the self-reported medical and social questions in years 1, 3 and 5 of participation. This symposium highlights existing clinical findings and research on hospitalisation within the ASPREE cohort and presents opportunities to collaborate with study investigators to address a range of HSR questions

The ASPREE Trial: Design, structure and major findings

John McNeil, Professor, School of Public Health and Preventive Medicine, Monash University

The ASPREE trial was established to determine whether a daily use of 100mg of enteric-coated aspirin prolongs healthy life span for older adults and collected information on a wide range of socio-economic and health conditions for participants. The principal outcome measure was disability-free survival, a composite derived from survival free of physical disability and dementia. The routine measurement of these parameters under clinical trial conditions in 19,100 Australians & US citizens provides unique insights into the trajectories of health and illness in the elderly. The study has made a major impact on preventive recommendations for millions of individuals worldwide. Previously, the practice of taking daily aspirin for prevention was reported for 10% of Australians and 40% of Americans aged 70 and over.

Hospitalisations in the ASPREE Cohort

Jane Banaszak-Holl, Professor, Monash University School of Public Health and Preventive Medicine

This study describes how ASPREE data are being used to examine trends and trajectories of hospitalisation for older adults. While past studies have analysed disease-specific episodes of care or used administrative health service data, this study compares relatively healthy individuals in the community who were hospitalised to those with and without risk factors who do not reach the hospital. The ASPREE cohort experienced over 28,000 hospitalisations with 16,000 attributable to study key endpoints. Rates of hospitalisation increased over time for the cohort, reflecting declining health among participants. Data on hospitalisation risks can then be linked to administrative data on hospitalisation separations.

Statistical Methods for Analysing Health Service Use in the ASPREE Community Cohort

Rory Wolfe, Professor, Monash University, School of Public Health and Preventive Medicine

This presentation proposes solutions to some of the analytical challenges present in the longitudinal ASPREE data including varying length of follow-up time per individual, loss to follow-up due to death, and a rich spread of measures of outcome available either in continuous time or on repeated discrete occasions. Survival analysis models for time to hospital admission require accommodation of multiple hospital separations (events) per person and hence allowance for within-person correlation of hospital admission times. To identify clusters of modifiable risk factors measured at baseline that differentiate individuals with frequent hospital admission during the study we propose latent class methods. Accommodation of evolving profiles of risk factors in analysis is possible but requires the use of special methods adapted according to the research question of interest.

Identifying Community Living Elders At High Risk Of Preventable Hospitalisation

Danijela Gasevic, Senior Lecturer, Monash University School of Public Health and Preventive Medicine

We describe the use of ASPREE data in developing a patient-centred approach to the challenges of managing complex chronic conditions for avoidable hospitalisations. The ASPREE data are used to develop more accurate risk predictions for potentially avoidable hospitalisations among community-dwelling seniors, and for the association of hospitalisation with both multi-morbidity across a range of chronic conditions and a comprehensive set of health and social risk factors. Patients' voices will then be incorporated through social listening to identify their perspectives on when risks for hospitalisation should be addressed and how to target risk factors and translate research findings.

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