AuSCR Research Task Group approved projects

Title	**Use of lipid-lowering medications among patients with stroke and associated outcomes: using linked national registry and administrative data**
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AuSCR role	Data provision
Approved	9 November 2020
Status	In progress
Summary	Mortality and recurrent events are common after stroke. Mortality 30 days after stroke is 17-30% in high income countries. In Australia, the cumulative risk of the first recurrent stroke is 43% (average annual risk of 4%). A similar estimate was reported in pooled analyses of 13 studies. Pharmacological interventions are recommended in Australian guidelines for the secondary prevention of stroke, including the use of lipid-lowering therapy (regardless of baseline lipid levels). In Australia, data on the use of secondary prevention medications are largely limited to national data collection programs such as the Stroke Foundation Audit Program and the AuSCR. There are no routinely reported national data on the use of secondary prevention medications after stroke beyond the acute care setting. Therefore, not much is known about the use of or adherence to medications after discharge into the community and whether there are associated outcomes. A unique opportunity presents to explore this evidence gap through the linkage of data from the AuSCR with administrative data from the Pharmaceutical Benefits Scheme (PBS - medications dispensed), the Medicare Benefits Scheme (MBS - use of health care services), and hospital admissions (i.e. admissions and emergency department presentations). **Study aims**: The overarching aim of this study is to determine the association between the use of lipid-lowering medications following an ischaemic stroke or a TIA and secondary outcomes. Specific aims include: i. To determine the association between the use of lipid-lowering medications following an ischaemic stroke and secondary outcomes (i.e. mortality, readmissions and self-reported quality of life). ii. To determine the association between the use of lipid-lowering medications following a TIA and secondary outcomes (i.e. mortality, readmissions and self-reported quality of life). **Study design**: This is a secondary analysis of PRECISE, an observational cohort study of patients with ischaemic stroke or TIA will be conducted using linked AuSCR and administrative datasets (described below). The study cohort will include adult registrants with stroke/TIA admitted to participating hospitals who were registered in the AuSCR in Victoria and Queensland between 2012 and 2016 (~25,000 registrants from 43 hospitals). Registrants with a history of stroke/TIA prior to their index stroke/TIA in the AuSCR or registrants who died during hospitalisation for the index stroke/TIA will be excluded from this study.