

Maximising the use of linked national registry, Medicare and pharmaceutical benefits scheme data for understanding factors related to use of secondary prevention medication after stroke

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### Abstract Title

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**Oral and poster abstract text** (Arial, size 10 font, left aligned, maximum 250 words)

### Background

There are limited data in Australia on the use of secondary prevention medication after stroke.

### Objectives

To assess the utilisation and discontinuation of stroke prevention medications in the 12-months after stroke and investigate factors associated with discontinuation.

### Method

Data from the Australian Stroke Clinical Registry (2010-2014 registrants from 26 hospitals in five States) were linked to the Pharmaceutical Benefits Scheme (PBS) and Medicare Benefits Schedule (MBS). Medications were classified using Anatomical Therapeutic Chemical codes. Utilisation was defined as  $\geq 1$  supply in the 12-months after discharge from hospital. Discontinuation was defined as  $>90$  days without a new supply. We used random effects logistic regression to investigate patient factors (e.g. age, sex) and GP visit MBS items associated with discontinuation.

### Results

Among 13,197 patients discharged from hospital after stroke (mean age 72 years, 55% male). Drug utilisation varied by type (69% antihypertensives, 53% antithrombotics 57% lipid-lowering). Many survivors discontinued medications within 12-months (26% antihypertensives, 44% antithrombotics, 30% lipid-lowering). Patients visiting their GP  $\leq 6$  times (OR: 1.28, 95% CI: 1.10 - 1.50) or having no GP chronic disease management plan (OR: 1.30, 95% CI: 1.16 - 1.45) had the greatest risk of discontinuing antihypertensive medications.

### Conclusions

For the first time we illustrate the importance of linkage of a national clinical quality registry with MBS and PBS data for informing policy and practice related to stroke prevention management. Our work contributes to registry and big data science advance in Australia. Routine linkage is feasible, valuable and would enhance disease burden monitoring efforts.