

## AuSCR Research Task Group approved projects

<b>Title</b>	<b>Identifying gaps and inequalities in access to General Practitioner coordinated care for survivors of stroke</b>
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<b>Institute</b>	Stroke and Ageing Research Centre, Monash University
<b>Co-investigators</b>	Associate Professor Dominique Cadilhac, Professor Amanda Thrift, Associate Professor Vijaya Sundararajan
<b>Submission date</b>	8 March 2017
<b>AuSCR role</b>	Data Provision
<b>Approved</b>	17 October 2017
<b>Status</b>	Completed
<b>Summary</b>	<p>The aim of this study is to conduct an observational cohort study using comprehensive linked data from survivors of stroke registered in the Australian Stroke Clinical Registry (AuSCR) linked to Medical benefit Schedule (MBS or Medicare), and Pharmaceutical Benefit Scheme (PBS) data to:</p> <ol style="list-style-type: none"> <li>1) Describe how patients with stroke are managed in the community following discharge from hospital. This will be done using Medicare funded items relating to care coordination (e.g. CDMPs and TCAs), reimbursement items relevant to managing common sequelae of stroke (e.g. depression and pain) and provision of medications relevant to stroke prevention and management in the 1-2 years following stroke.</li> <li>2) Describe patient factors (e.g. age, location, ethnicity), clinical factors (e.g. stroke type, disability profile) and system factors (e.g. early rehabilitation, pre-stroke GP care, cost of care/medication) associated with different care types following stroke.</li> <li>3) Describe patient factors (e.g. age, location, ethnicity), clinical factors (e.g. stroke type, disability profile) and system factors (e.g. early rehabilitation, pre-stroke GP care, costs of care) associated with receipt or no receipt of GP coordinated rehabilitation (defined as receipt of a TCA or a TCA review) in those with chronic disability.</li> </ol>
<b>Outcomes</b>	<p>Analysis 1: Feasibility of linking AuSCR data with Medicare and pharmaceutical data:</p> <ul style="list-style-type: none"> <li>• 93% of AuSCR registrants (January 2010 to June 2014, N=16,648, 46% female, median age 76 years, 67% ischaemic stroke) from four states were successfully linked with the Medicare data and 95% with pharmaceutical data.</li> <li>• Resulting data set contained 1,075,064 Medicare claims and 2,675,931 PBS claims</li> </ul> <p>Analysis 2: Cohort restricted to those aged <math>\geq 18</math> years, not discharge to residential care, alive at 6 months and with 18 months of follow-up data Proportion with a claim for the following items in the first 18 months following stroke were:</p> <ul style="list-style-type: none"> <li>• GP Management Plan or review 26%.</li> <li>• Team Care Arrangement or review 16%</li> <li>• Allied Health Claim: 24%. - Of these 66% were for podiatry, 25% for physiotherapy, 1% for occupational therapy and 2% for speech pathology These rates did not differ significantly between those with and without disability</li> </ul> <p>Factors associated with receipt of a GP management plan or review were:</p> <ul style="list-style-type: none"> <li>- Having a plan prior to stroke</li> <li>- Regular GP contact - Younger age</li> <li>- Being born in Asia compared to Australia</li> <li>- Being prescribed antihypertensive medication at discharge</li> </ul> <p>Analysis 3: Cohort with EQ-5D data In those with follow-up EQ-5D data factors associated with receiving a TCA or review were:</p> <ul style="list-style-type: none"> <li>- Having difficulty with usual activities</li> <li>- Having had a TCA prior to their stroke</li> <li>- Regular GP contact - Being discharged to rehabilitation</li> <li>- Living in a metropolitan area</li> <li>- Being discharged on antihypertensive medications</li> </ul>

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Having chronic disability was not associated with receipt of a TCA (OR: 1.09, 95%CI: 0.88, 1.36). Those with anxiety or depression were less likely to receive a TCA compared to those without and only 10% of these survivors received Medicare funded mental health management.

Results demonstrated the feasibility of linking the AuSCR data to Medicare and PBS data. Medicare funded enhanced primary care models are underutilised and not specifically targeted towards the needs of survivors. This work has provided important pilot data for our larger NHMRC funded data linkage grant PRECISE (GNT: 1141848). Additional grant funding was obtained by Dr Monique Kilkenny for analysis of the PBS data.

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## Publications

Andrew NE, Kilkenny MF, Sundararajan V, Thrift AG, Anderson P, Johnston T, R Grimley, Lannin NA, Cadilhac DA. **New frontiers in stroke data linkage: linking national stroke data with Medicare and pharmaceutical claims data.** Stroke Society of Australasia conference, Sydney 2018. Published IJS. 2018; 13 (1S).

Andrew NE, Kilkenny MF, Sundararajan V, Thrift AG, Cadilhac DA. **Progressing national stroke data linkage: feasibility and quality of linkages between stroke registry data and Medicare and Pharmaceutical claims data,** Stroke Society of Australasia conference, Canberra, 2019

Andrew NE, Sundararajan V, Kilkenny MF, Cadilhac DA, Snowdon D, Thrift MG. **Uptake of enhanced primary care items in the long-term management of survivors of stroke: A data linkage study.** Stroke Society of Australasia conference, Canberra, 2019

**Measurement of optimal general practitioner encounters following stroke using linked data from the Australian Stroke Clinical Registry,** 11th Health Services and Policy Research Conference, Auckland, New Zealand, 2019

Andrew NE, Snowdon D, Kilkenny MF, Thrift AG, Sundararajan V, Lannin NA, Cadilhac DA. **Missed opportunities in taking up Medicare funded allied health services following stroke: a data linkage study,** Smart Strokes 2019 Conference, Hunter Valley, Australia

**In preparation:** 1. New frontiers in stroke data linkage: linking registry data with Medicare and pharmaceutical claims data

2. Are General Practitioner Management Plans and Team Care Arrangements being claimed in accordance to Medicare guidelines in patients with stroke?

3. Measuring optimal general practitioner encounters following stroke

4. Use of MBS and PBS items in the management of anxiety and depression following stroke.

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