

Farr@Aberdeen Research Theme: Stroke Research Programme (leveraged funding)

Secondary prevention after stroke: Can we do better?

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Funder: Chest, Heart & Stroke Scotland (Grant 16/A167; £77,155)

How do co-existing health conditions affect stroke?

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Funder: Stroke Association Fellowship for Dr Melanie Turner (£131,081.00)

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We previously demonstrated the robustness of the Scottish Stroke Care Audit (SSCA) data as a research resource; and used it to determine that patients admitted directly to specialist stroke care units, patients receiving a simple stroke care bundle, and patients treated during normal working hours were all more likely to have better outcomes.

Both new grants involve linking SSCA to hospital episode data (SMR01), the death registry and the national prescription dispensing database (PIS). This enhanced and updated dataset will be used to look at multiple research questions around comorbidity and prescribing in stroke patients, and to build up a picture of how other conditions impact on stroke risk and outcome, and how stroke events impact on prescribing and other aspects of care.

Among the specific aims are:

1) To describe prescribing patterns in stroke patients, identify the characteristics of patients not given or discontinued from secondary prevention, and compare outcomes with those who are appropriately treated.

2) To determine the effect of comorbidity on stroke management and outcomes including recurrent events.

We envisage the linked dataset will be available to other researchers who wish to look at other aspects of stroke care (in collaboration with the investigators and within the Farr data safe havens). All additional research questions will be reviewed and approved by the SSCA research subgroup.

A further two manuscripts from the Stroke Research Programme are currently in

preparation: one on staffing levels and outcomes (which suggests that staffing levels influence likelihood of achieving standards, but no link with mortality), and a further paper looking at changes in mortality from stroke over the past 10 years.

Publications:

Turner, M., Barber, M., Dodds, H., Martin, D., Langhorne, P. & Macleod, M. on behalf of the Scottish Stroke Care Audit (2016). 'Stroke patients admitted within normal working hours are more likely to achieve process standards and to have better outcomes'. *Journal of Neurology, Neurosurgery & Psychiatry*, vol 87, no. 2, pp. 138-143. DOI: [10.1136/JNNP-2015-311273](https://doi.org/10.1136/JNNP-2015-311273)

Turner, M., Barber, M., Dodds, H., Martin, D., Langhorne, P. & Macleod, M. (2015). 'Agreement between routine electronic hospital discharge and Scottish Stroke Care Audit (SSCA) data in identifying stroke in the Scottish population'. *BMC Health Services Research*, vol 15, 583. DOI: [10.1186/S12913-015-1244-Y](https://doi.org/10.1186/S12913-015-1244-Y)

Turner, M., Barber, M., Dodds, H., Murphy, D. & Scottish Stroke Care Audit (2015). 'Implementing a Simple Care Bundle Is Associated With Improved Outcomes in a National Cohort of Patients With Ischemic Stroke'. *Stroke*, vol 46, no. 4, pp. 1065-1070. DOI: [10.1161/STROKEAHA.114.007608](https://doi.org/10.1161/STROKEAHA.114.007608)

MacLeod, MJ. & Turner, M. (2015). 'Stroke: Stroke outcomes after 90 days-out of sight, out of mind?'. *Nature Reviews Neurology*, vol 11, no. 4, pp. 187-188. DOI: [10.1038/NRNEUROL.2015.28](https://doi.org/10.1038/NRNEUROL.2015.28)

Turner, M., Barber, M., Dodds, H., Dennis, M., Langhorne, P. & MacLeod, MJ. (2015). 'The impact of stroke unit care on outcome in a Scottish stroke population, taking into account case mix and selection bias'. *Journal of Neurology, Neurosurgery & Psychiatry*, vol 86, no. 3, pp. 314-318. DOI: [10.1136/JNNP-2013-307478](https://doi.org/10.1136/JNNP-2013-307478)

