

Reducing death and dependency

Transforming stroke care clinical practice through nurse-led interventions

Patients with fever, elevated blood sugar levels, and swallowing difficulties (FeSS) following a stroke experience higher rates of death and disability than those without these symptoms. Three nurse-led FeSS protocols were developed through the Quality in Acute Stroke Care (QASC) Trial (2005-2011) to manage these in the first 72 hours of hospitalisation following stroke. Support to introduce the FeSS protocols led to reduced death and dependency. This evidence resulted in changes to policy, guidelines, clinical practice and wide adoption of the protocols.

Lead researchers



Professor Sandy Middleton

Professor of Nursing and Director of the Nursing Research Institute, St Vincent's Health Australia (Sydney) and Australian Catholic University.



Simeon Dale

Clinical Research Fellow, Nursing Research Institute, St Vincent's Health Australia (Sydney) and Australian Catholic University.

Awards

- American Heart Association Council on Cardiovascular Nursing 2012 Stroke Article of the Year (Middleton et al. Lancet 2011).
- 2014 NSW Premier's Public Sector Award for Improving Performance and Accountability. QASC Implementation Project.
- NSW Health Excellence in Nursing and Midwifery Awards 2014. Excellence in Innovation Research.

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Health

Change that improves health and well-being outcomes in society.

QASC Trial results, published in the Lancet (2011), showed that patients who were cared for in stroke units that received supported implementation of FeSS protocols had:

- Decreased 90-day death and dependency by **16 per cent**.
- Reduced temperatures and glucose levels.
- Improved swallowing management.
- Clinically important reduced hospital stay by an average of **two days**.



Economic

Change in economic participation and activity.

- Independent economic evaluation of FeSS protocols and behaviour change showed that if 65 per cent of eligible Australian stroke patients were managed with these protocols, over a 12 month period there would be a saving of **\$281 million**.



Practice

Change in professional behaviour and standards within a sector.

- Changed clinician behaviour through barrier identification, reinforcement of multidisciplinary teamwork, local adaptation, and use of site champions.
- Training workshops and education sessions with all clinical staff and managers identified barriers and enablers to using the protocols facilitating implementation at each site.

Impact Areas



Systems

Change in policy, organisational structure and formal processes.

- Change to NSW Health Fever Policy Directive based on FeSS protocols.
- Implementation of FeSS Protocols into all 36 NSW stroke services.
- More patients across NSW received care in line with the FeSS protocols.
- UK National Clinical Guidelines for Stroke reference QASC Trial for physiological management.
- FeSS indicators included in Western Australia Health Stroke Data & Quality Framework.
- FeSS indicators incorporated in Stroke Foundation national stroke audit.



Infrastructure

New technology, tools, software and design that improves people's lives.

- QASC Resources placed on ACU (www.acu.edu.au/qasc) and NSW Agency for Clinical Innovation websites.
- Professional development and capacity building resources co-created with Stroke Foundation Australia, including an educational video and self-directed activity to help clinicians apply protocols.
- QASC audit tool publicly available for health services to use for evaluation.
- FeSS indicators incorporated into the Australian Stroke Data Tool.



End users

The person, people or organisations directly impacted by this research.

National

- Patients and their families.
- Clinicians.
- NSW Agency for Clinical Innovation.
- WA Department of Health.
- Stroke Foundation Australia.

International

- Royal College of Physicians, UK.
- Clinicians.