

---

# Building efficient and equitable pathways to and through rehabilitation after stroke

Initiative Type

Research

Status

Deliver

Added

26 July 2017

Last updated

03 December 2023

URL

<https://cnxp3cuvtvrn68yjaibaht5ywrxspj7m.clinicalexcellence.qld.gov.au/improvement-exchange/bld-path-rehab>

## Summary

Stroke is one of the top three conditions requiring rehabilitation in Queensland public hospitals. National Stroke Foundation (NSF) Clinical Audit data suggests that 52 per cent of acute stroke

---

patients who survive to discharge in Australia currently receive some form of rehabilitation. Little is known about current need. However, available evidence suggests significant variation and gaps in access. Pathways to and through rehabilitation following acute stroke are complex and poorly understood, particularly in the community sector in Queensland where there is no systematic data regarding community rehabilitation. Multiple different rehabilitation options and configurations are available across Queensland sites and there is a great need to identify optimal service configuration to enable maximum service efficiency and effectiveness. The Queensland Statewide Stroke Clinical Network has developed a platform of systematic data collection in acute stroke through the Australian Stroke Clinical Registry (AuSCR), which is hosted within the integrated data collection solution – the Australian Stroke Data Tool (AuSDaT). AuSDaT enables data collection at any point along the continuum; linked to AuSCR data which includes community outcomes. The Building Efficient and Equitable Pathways to and through Rehabilitation after Stroke (BEEPERS) project provides a unique opportunity to systematically map current processes and pathways of assessment, referral and provision of rehabilitation through to patient reported outcomes. The resulting information will enable for the first time, a mechanism to establish service gaps in rehabilitation; and inform the most efficient and effective means for configuring rehabilitation services to meet needs and maximise flow from acute hospitals through rehabilitation to the community. This approach and data can then be used to inform similar investigation in the other major rehabilitation diagnosis related groups in Queensland.

#### Key dates

Dec 2015

Jun 2018

#### Implementation sites

Sunshine Coast University Hospital Gold Coast University Hospital Royal Brisbane and Women's Hospital The Prince Charles Hospital Caboolture Hospital Townsville Hospital Cairns Hospital

#### Partnerships

Statewide Stroke Clinical Network and Statewide Rehabilitation Clinical Network

## Key Contacts

Greg Cadigan

[paul.blee.hiu](mailto:paul.blee.hiu)

Project Officer

Healthcare Improvement Unit

(07) 3328 9191

Rachel.Olorenshaw@health.qld.gov.au

## **Aim**

An initiative to systematically map current processes, pathways and rehabilitation received through the stroke rehabilitation stream. This joint network project will follow patients admitted with a stroke through their journey from acute admission till 6 months post stroke. The project supports systematic data collection through all sectors of rehabilitation in seven sites across Queensland, selected to provide a representative sample of service size and type. Data will be used to: 1. Accurately identify current service provision, variation, gaps and requirements. 2. Develop a minimum data set, which is feasibly collected within rehabilitation services to map rehabilitation demand, supply, efficiency and effectiveness. 3. Inform economic evaluation and service planning linking acute and rehabilitation services. 4. Inform stroke rehabilitation assessment processes to improve clinical decision-making & patient choice. 5. Ultimately this will drive more effective, efficient and equitable rehabilitation systems for stroke patients.

## **Benefits**

Findings from this project will inform planning for wider systematic investigation of rehabilitation assessment, pathways and outcomes with the aim of establishing robust data to support development of more effective, efficient and equitable rehabilitation, especially community and ambulant models. Similar data underpinned the recent gains made across the state led by the Statewide Stroke Clinical Network in acute stroke care and will be used to target areas for improvement in efficiency and quality in rehabilitation following acute stroke. Specific areas identified that show great promise for ongoing gains include: decreasing delays between acute and rehab sectors and improving flow through the system; increased use of ambulant rather than inpatient options; improved access to evidence based care in a systematic and more equitable manner; and integration with system drivers such as funding models (especially in the community sector) to drive combined quality and efficiency.

---

## Background

Stroke is the second most common cause of mortality and a major cause of disability and dependence in adults contributing to low health-related quality of life and high burden of care. In 2014/15 financial year stroke patients occupied 122, 370 Queensland public hospital bed days (combined acute / rehab) with 52, 689 bed days in acute episodes of care, and 69, 681 bed days in subacute. Flow to rehabilitation from the acute sector is a significant opportunity for improved efficiency and thus reduced costs. Community rehabilitation currently comprises a significant, but unknown proportion of Queensland Health's annual budget for community and primary health. There is a lack of systemic data regarding this important sector of rehabilitation in Queensland. Community based rehabilitation options, including early supported discharge have a strong evidence base following acute stroke, but are variably available, and lack systemic funding support or drivers. This project timely investigates the subacute rehabilitation setting to inform future planning.

## References

1. National Stroke Foundation, National Stroke Audit – Acute Services Clinical Audit Report 2013. Melbourne, Australia. Accessed via [www.strokefoundation.com.au](http://www.strokefoundation.com.au)
2. National Stroke Foundation, Clinical Guidelines for Stroke Management, 2010, National Stroke Foundation, Melbourne, Australia.
3. Ilett, P.A., et al., Selecting patients for rehabilitation after acute stroke: are there variations in practice? *Arch Phys Med Rehabil*, 2010. 91(5): 788-93.
4. Van der Cruyssen, K., et al., Prognostic factors for discharge destination after acute stroke: a comprehensive literature review. *Disabil Rehabil*, 2014: 1-15.
5. Meyer, M.J., et al., A systematic review of studies reporting multivariable models to predict functional outcomes after post-stroke inpatient rehabilitation. *Disabil Rehabil*, 2014: p 1-8.
6. National Stroke Foundation. National Stroke Audit – Rehabilitation Services Report 2014. Melbourne, Australia. Accessed via [www.strokefoundation.com.au](http://www.strokefoundation.com.au)
7. Kuys S.S., et al., Activity limitations experienced by people with stroke who receive inpatient rehabilitation: differences between 2001, 2005 and 2011. *Archives of Physical Medicine and Rehabilitation* 2014; 95: 741-746.
8. Australian Institute of Health and Welfare. Heart, Stroke and Vascular Diseases: Australian Facts, 2004.
9. Carod-Artal F.J., Egido, J.A. Quality of life after stroke: the importance of a good recovery. *Cerebrovasc Dis* 2009; 27:204-14.
10. Rigby, H., Gubitz, G., Phillips, S. A systematic review of caregiver burden following stroke. *Int J Stroke*, 2009; 4(4): 285-92.