

PUBLIC SUMMARY REPORT 2020



AUSCR
Australian Stroke Clinical Registry

PUBLIC SUMMARY REPORT

This document was produced on behalf of the Australian Stroke Clinical Registry (AuSCR) Consortium partners and was approved by the AuSCR Steering Committee.

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THE AUSTRALIAN STROKE CLINICAL REGISTRY

The Australian Stroke Clinical Registry (AuSCR) was established in 2009 to monitor and improve the quality of stroke care in Australia. Hospitals participating in the AuSCR capture data on patients presenting to hospital with acute stroke and transient ischaemic attack (TIA or 'mini stroke').

In 2020, 68 hospitals from seven Australian states and territories contributed data to the AuSCR. This report contains information for 19,818 patients and 20,519 episodes of hospital care.

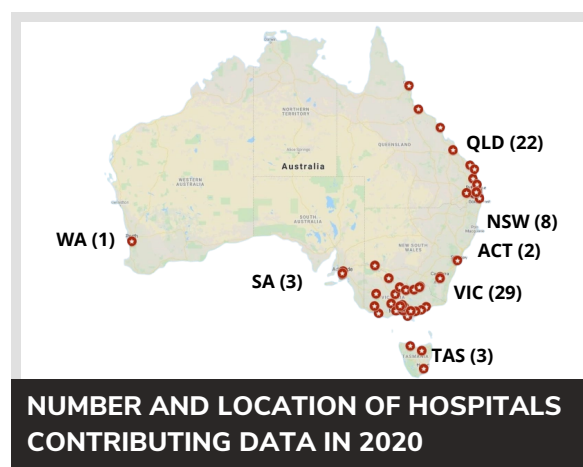
Summary information on the status of the quality of care in Australian hospitals is outlined in this report.

INFORMATION COLLECTED BY THE HOSPITAL

Information collected on patients while they are in hospital includes whether someone has received:

- Thrombolysis (clot-busting medication)
- Endovascular clot retrieval (removal of blood clots from the brain)
- Treatment in a stroke unit
- Treatment with an antithrombotic medicine (eg aspirin) within 48 hours of a stroke
- Early mobilisation (within two days of arriving at hospital)
- A discharge care plan
- Medications on discharge to help prevent future strokes (antihypertensives, antithrombotics and lipid-lowering medications) and
- Where patients go after leaving hospital (discharge destination).

Achievable performance benchmarks are calculated using AuSCR data for each of these processes of hospital care. These benchmarks represent the levels of care which hospitals should aim to achieve.



INFORMATION COLLECTED AFTER LEAVING THE HOSPITAL

Patients are contacted by the AuSCR between 90 to 180 days after they are hospitalised to complete a survey about their recovery and progress. The follow-up information collected includes:

- Current living arrangements
- Readmission to hospital
- Subsequent stroke since discharge
- A measure of disability (modified Rankin Scale (mRS) ranging from zero for no symptoms to five for severe disability)
- Quality of life assessment covering mobility, self-care, usual activities, pain and discomfort, anxiety and depression
- A rating of overall health using a score of zero to 100; with zero representing the worst health state imaginable and 100 representing the best health state imaginable.

PERFORMANCE BENCHMARKS FOR QUALITY OF CARE

CLOT BUSTING MEDICATION

What is clot-busting medication?

Most strokes are caused by a blood clot that blocks the blood flow to part of the brain resulting in a lack of oxygen. This is called an ischaemic stroke. Clot-busting medication (known as thrombolysis) can dissolve the clot that is causing the stroke and restore the blood flow and oxygen to the brain.

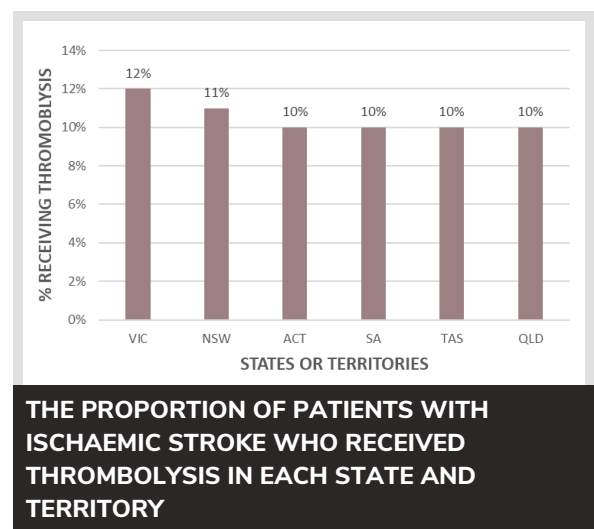
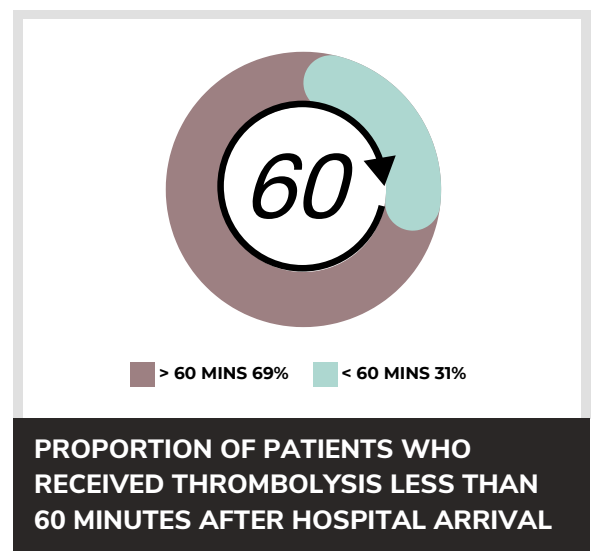
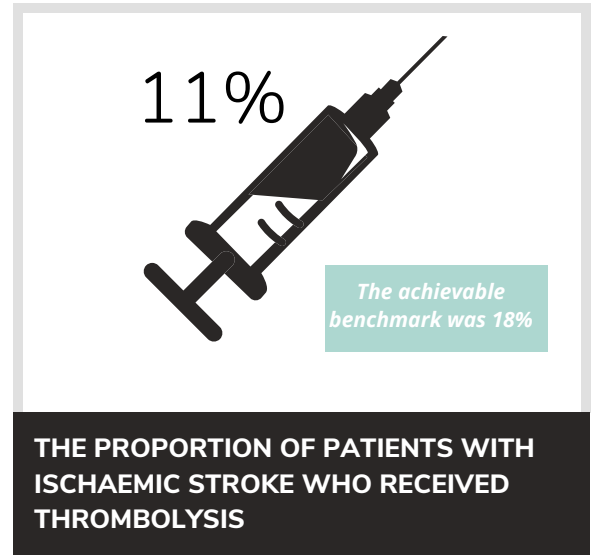
Why is it important?

This medication can prevent or significantly reduce disability caused by a stroke. It works best when provided within the first few hours while brain tissue is still alive. Shorter times between stroke onset and treatment with thrombolysis lead to better outcomes.

Who should get this treatment?

Up to 20% of patients with ischaemic stroke may benefit from this treatment if they are assessed early enough by a specialist team. Arriving at hospital after the allowable time to provide treatment is a major reason why it is not provided.

- In 2020, overall 11% of patients with ischaemic stroke received clot-busting medication. The achievable benchmark for the top-performing hospitals was 18%.
- The proportion of patients receiving thrombolysis in less than 60 minutes from arrival at hospital was 31%. The top-performing hospitals were able to treat almost two-thirds (65%) of patients within this time.
- Differences between the proportion treated by state or territory were small.



ENDOVASCULAR CLOT RETRIEVAL

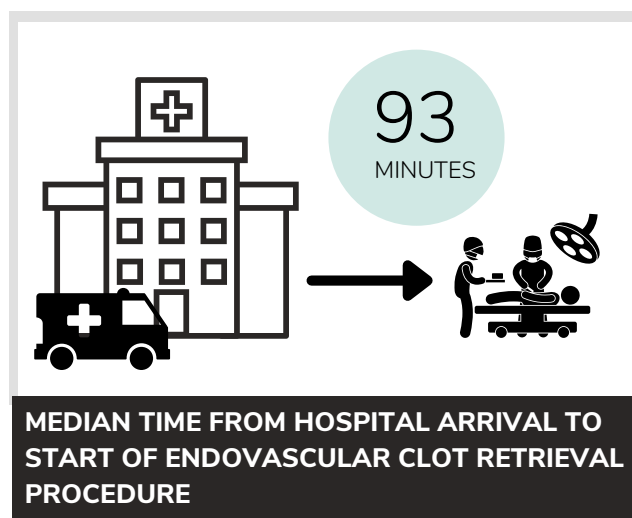
What is endovascular clot retrieval?

Endovascular clot retrieval (ECR) is the removal of large blood clots blocking a blood vessel in the brain. This is done by physically removing the clot via an artery in the body. Not all patients are suitable for this treatment. Highly specialised skills are required to perform ECR and it is only available at some large city hospitals in Australia.

Why is it important?

ECR removes the blood clot that is blocking blood flow to the brain.

- In 2020, 1,263 patients with ischaemic stroke received ECR at 13 metropolitan hospitals in seven states.



CARE IN A STROKE UNIT

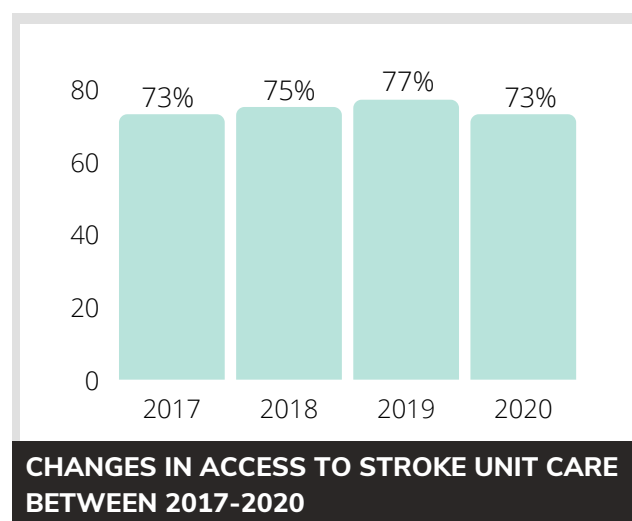
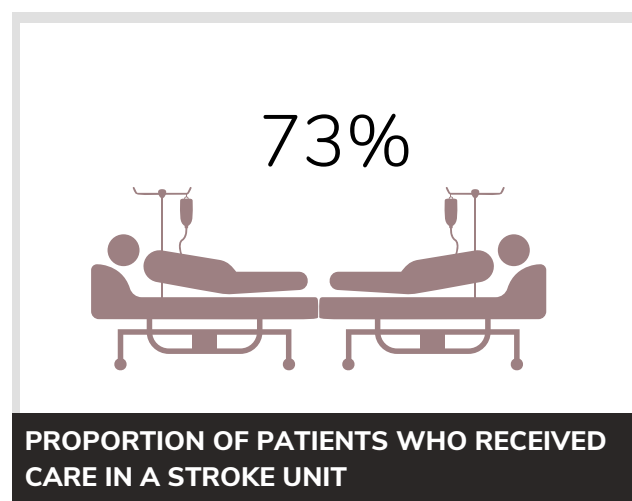
What is a stroke unit?

A stroke unit is a ward or area within a hospital that is dedicated to providing care for patients with stroke or mini-stroke.

Why are stroke units important?

Patients who are treated in stroke units more often receive the care they require and have better outcomes after stroke.

- Overall, 73% of patients were treated in a stroke unit.
- The achievable benchmark for the top-performing hospitals was 93%.
- Patients who experienced a stroke or TIA while already in hospital for a different condition were less likely to be treated in a stroke unit than those who presented from the community.
- Despite improvements in access to stroke unit care between 2017 and 2019, there was a marked decline in 2020 which has been attributed to the impacts of the COVID-19 pandemic.



HYPERACUTE ANTITHROMBOTIC MEDICATION

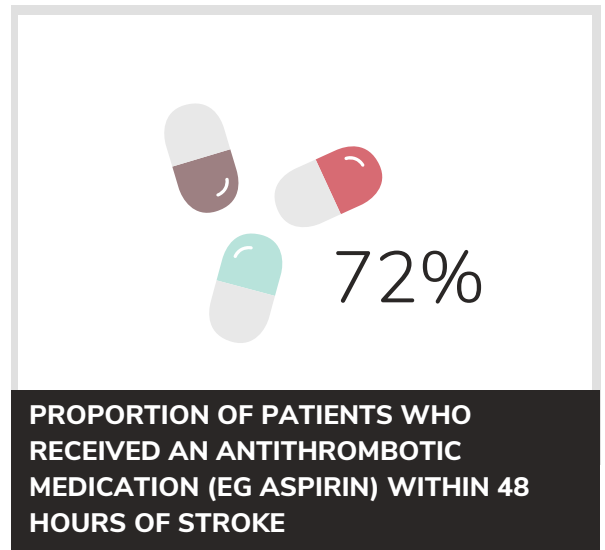
What is an antithrombotic medication? What makes it hyperacute?

An antithrombotic medication helps to reduce blood clots forming. A common antithrombotic medicine is aspirin. A hyperacute antithrombotic is one that is given to a patient within 48 hours of having a stroke.

Why is it important?

Taking an antithrombotic medication improves the outcomes for patients with stroke and decreases the likelihood of having another stroke.

- On average, 72% of patients received antithrombotic medication within 48 hours of stroke.
- The achievable benchmark for the top-performing hospitals was 85%.



SWALLOW SCREEN AND ASSESSMENT

What is a swallow screen and assessment?

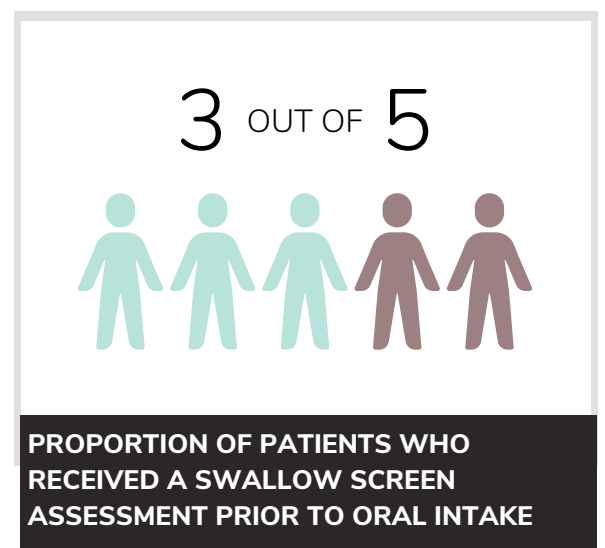
Screening of swallowing is a process to identify difficulty swallowing or the risk of fluid or food entering the lungs.

A swallow screen is often performed by nurses and can identify patients that require a formal assessment by a speech pathologist. This screen or assessment should occur prior to eating, drinking or being given medications that need to be swallowed, and ideally within four hours of arrival to hospital.

Why is it important?

Swallow screening by trained health professionals can help reduce the incidence of complications such as fluid entering the lungs and pneumonia.

- On average, 30% of patients received a swallow screen or assessment within four hours of hospital arrival, and 69% within 24 hours of their arrival.
- A swallow screen or assessment occurred prior to oral intake in three out of five episodes.



EARLY MOBILISATION

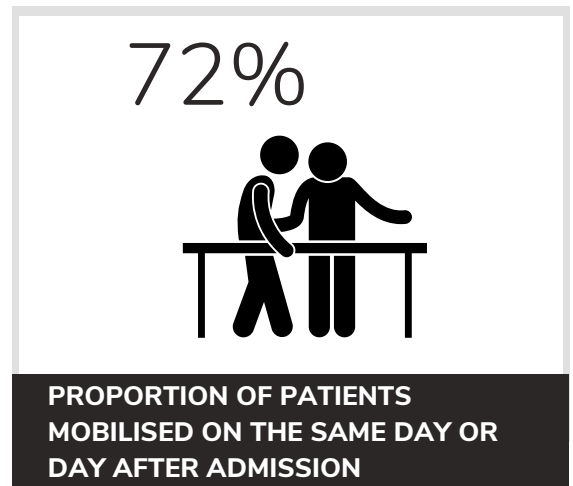
What is early mobilisation?

Early mobilisation is an out-of-bed activity that commences on the day of hospital arrival or the day after arrival.

Why is it important?

Early mobilisation can reduce the risk of complications after stroke and help with recovery.

- Overall, 86% of patients were mobilised during their hospital admission.
- In 2020, 72% of patients were mobilised on the same day or the day after admission.
- The achievable benchmark for top-performing hospitals was 84%.

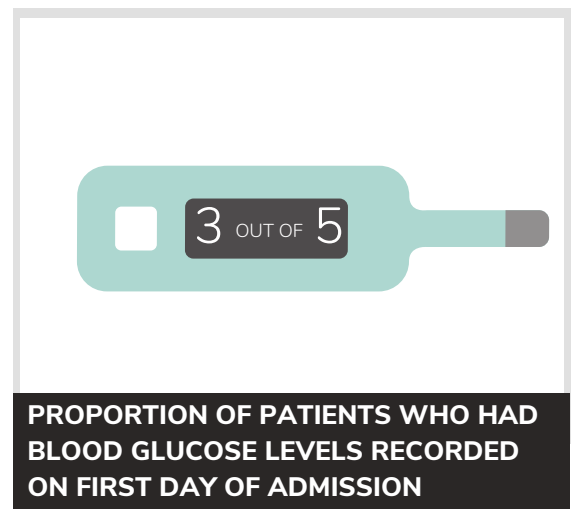


MONITORING AND MANAGEMENT OF FEVER AND BLOOD GLUCOSE

Why is it important to monitor and manage a fever and blood glucose levels?

Patients treated in hospitals that routinely monitor and treat patients' temperature and blood sugar have better outcomes.

- Twenty-two hospitals collected data on the provision of fever and blood glucose level monitoring and management from a total of 2,470 patients.
- On average 34% of patients with a documented fever (temperature $\geq 37.5^{\circ}\text{C}$) in the first 72 hours of admission were administered paracetamol.
- Three in five patients had blood glucose levels recorded at least four times on the first day of ward admission.
 - Of these, 27% were administered insulin within the first hour of the measured elevation in blood glucose.



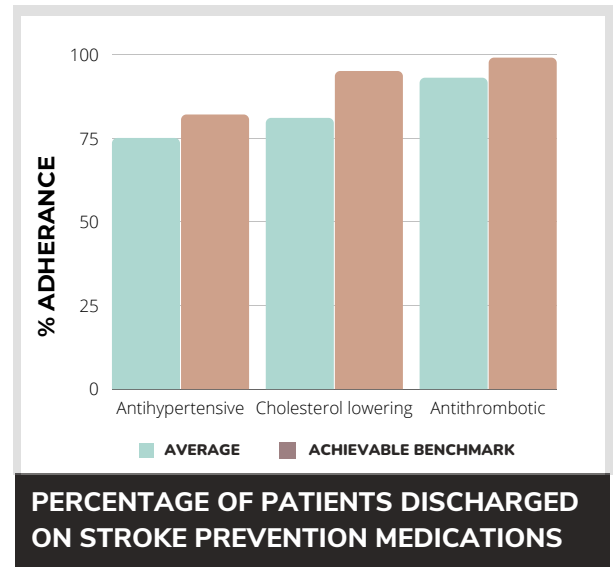
DISCHARGE MEDICATIONS

Why is receiving medication to lower blood pressure, lower cholesterol, and reduce the formation of blood clots important?

High blood pressure (hypertension) is a major cause of stroke, and lowering blood pressure reduces the risk of having another stroke. Those who do not have high blood pressure can also benefit from this medication.

Cholesterol-lowering agents commonly include (but are not limited to) statins, which are also effective for reducing stroke risk. Antithrombotic medications reduce blood clots forming in the blood.

Discharge medications should be provided when you leave hospital. These medications reduce the likelihood of patients having another stroke. Not all patients are eligible to receive all three medications.



- On average, at the time of discharge from hospital, 75% of patients received antihypertensive medication, 81% received cholesterol-lowering medication and 93% received antithrombotic medication.
- The achievable benchmarks for the top-performing hospital were: 93% for antihypertensive medication, 95% for cholesterol-lowering medication and 99%, for antithrombotic medication.
- 63% of eligible patients received all three medications.
- Patients who were discharged on all three medications were more likely to be men and were more likely to be aged over 75 years.

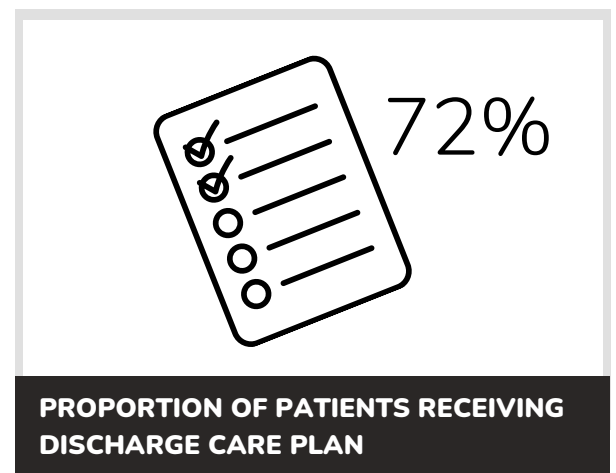
DISCHARGE CARE PLAN

What is a discharge care plan?

A written plan that details the next steps for care and recovery after leaving hospital should be developed with patients and their families or carers.

Why is receiving a discharge care plan important?

Recovery and treatment do not finish in hospital. A plan that details additional care required after leaving the hospital should be developed with you and your family.



- In 2020, a discharge care plan was provided to 72% of patients.
- The top-performing hospitals provided discharge care plans to 98% of patients.

DISCHARGE DESTINATION

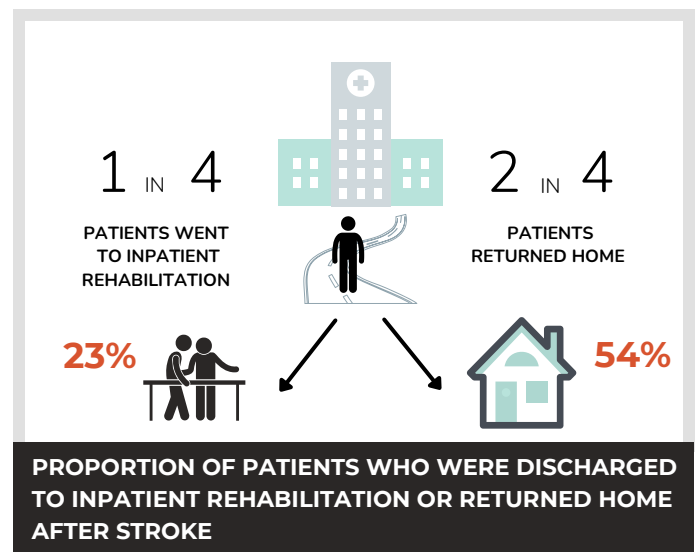
What is a discharge destination?

The discharge destination is where patients go when they leave hospital. This could include going back home, or to inpatient rehabilitation, another hospital facility, or aged care.

Why is it important?

Many patients will need treatment, advice or assistance to help them recover from their stroke. This is why patients may receive rehabilitation. Rehabilitation covers many different things including helping you to recover from any disability and assisting you with things like completing daily activities, eating and drinking or the psychological impact of a stroke. Some patients may also receive rehabilitation services in the community.

- After discharge from acute care, 24% of patients went to rehabilitation and 54% returned to their usual residence, with or without, some form of support.
- The best performing hospital discharged 43% of patients to inpatient rehabilitation.



CHANGES IN QUALITY OF ACUTE CARE OVER TIME:

At hospitals participating in the AuSCR since 2017, there have been improvements in patients receiving the recommended medications at discharge. The provision of blood pressure-lowering medication improved by 5%, medication to prevent blood clots improved by 5% and cholesterol-lowering medication improved by 3%.

The proportion of people receiving thrombolysis 'clot-busting' medication for ischaemic stroke has remained stable at 11%. Those receiving surgery to remove the blood clot (ECR) had increased to 20% of those attending hospitals that provide this service.

IMPACTS OF THE COVID-19 PANDEMIC ON STROKE CARE

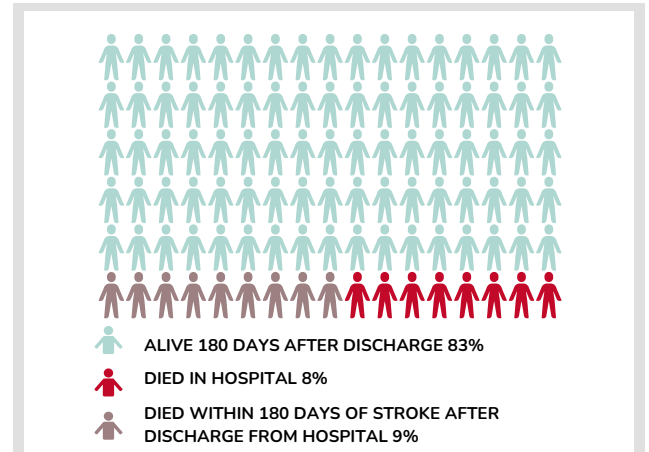
Fewer patients received care in a specialised stroke unit in 2020. This is thought to be due to changes to stroke unit location, staffing and size in some hospitals, as a result of the COVID-19 pandemic.

Given the importance of care in a stroke unit for patient outcomes, maintaining access to stroke units is paramount to ensuring best practice care even during a pandemic.

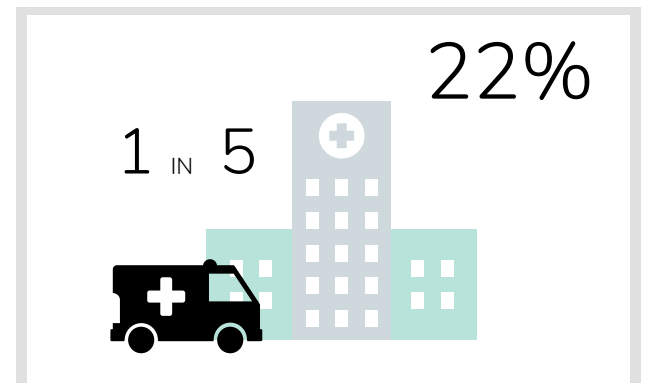
HEALTH OUTCOMES

Eligible patients are contacted to complete a survey about their current health status between 90 and 180 days after admission to hospital for stroke or TIA.

- In 2020, 8% of patients died in hospital after stroke. A further 9% died within 180 days of stroke following discharge from hospital.
- Between 90-180 days after discharge from hospital, 65% of eligible registrants completed surveys about their current health status. In 2020, 22% of patients reported being readmitted to hospital within 180 days after stroke.
- With respect to health-related quality of life, people living with stroke or TIA reported problems across all five dimensions of the European Quality of Life measure of health status (EQ-5D-3L). Patients reported problems with mobility (47%), self-care (29%), usual activities (55%), pain/discomfort (47%), and anxiety/depression (46%).
- More than half of the people living with stroke or TIA reported experiencing some level of disability on the modified Rankin Scale between 90 to 180 days.
- Among those who responded to the survey, 47% requested information to be posted to them about stroke.
- Lastly, three in five people living with stroke agreed to be contacted for future research projects indicating that the majority of registrants are willing to support research endeavours if they meet the eligibility criteria for participating in a project. Currently, in the registry, there are over 30,000 people living with stroke or TIA who have indicated a willingness to participate in research.



PROPORTION OF PATIENTS WHO WERE DISCHARGED FROM HOSPITAL



PROPORTION OF PATIENTS READMITTED TO HOSPITAL WITHIN 180 DAYS AFTER STROKE

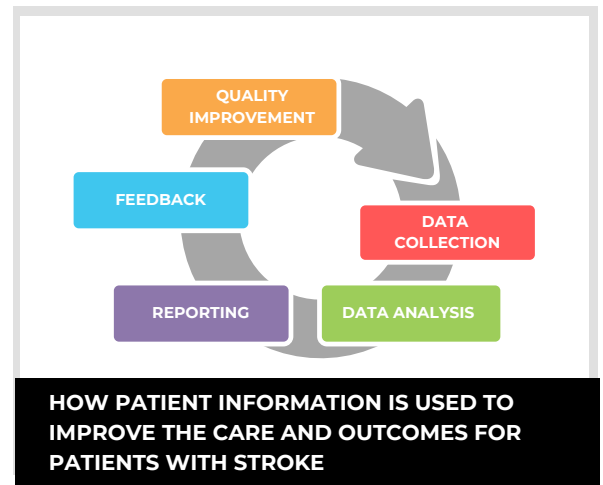


PATIENTS REPORTED SOME LEVEL OF DISABILITY 90-180 DAYS FOLLOWING STROKE

INFORMATION FOR PATIENTS AND CARERS


Information about your care is automatically included in the AuSCR. This information has been approved by an ethics committee for each hospital participating in the AuSCR. The information that is collected is used to provide feedback to hospitals about the quality of care that they provide to patients and to identify areas for improvement. You may choose to have your information removed (opted-out) from the registry, or request that you are not contacted about your progress after you leave hospital.

For more information on how to have your information removed, please ask the hospital staff or contact the AuSCR.



Currently, the AuSCR is unable to provide the name of hospitals when reporting quality of care to the public. Similarly, patients will not be identified in any reports produced so that their privacy is maintained.

More information about the AuSCR is available on the website www.auscr.com.au

 1800 673 053

 @AustStrokeReg

USEFUL RESOURCES AFTER STROKE

Stroke Foundation services

www.strokefoundation.org.au

The Stroke Foundation website has information about; symptoms of stroke and the FAST message, risk factors and treatments for stroke, how to prevent stroke, recovery and assistance available after stroke.

Strokeline: 1800 787 653

Is available between 9am and 5pm EST, Monday to Friday. They can help answer any questions you might have.

www.enableme.org.au

enableme is a place to talk to, and seek support from other people who have 'been there'. It is a place to ask questions, to find the answers that you need and to set recovery goals.

www.informme.org.au

A dedicated website for health professionals working in stroke care.

Carers Australia: 1800 242 636

A useful freecall resource offering information and counselling to carers from 8:30 am to 4:30 pm, Monday to Friday.

Beyond Blue: 1300 224 636

Beyond Blue provides mental health and wellbeing support. The free call phone line is available 24 hours a day, 7 days a week.

