

PUBLIC SUMMARY REPORT 2021



AUSCP
Australian Stroke Clinical Registry

This publication 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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CONSORTIUM PARTNERS



ACKNOWLEDGEMENT OF COUNTRY

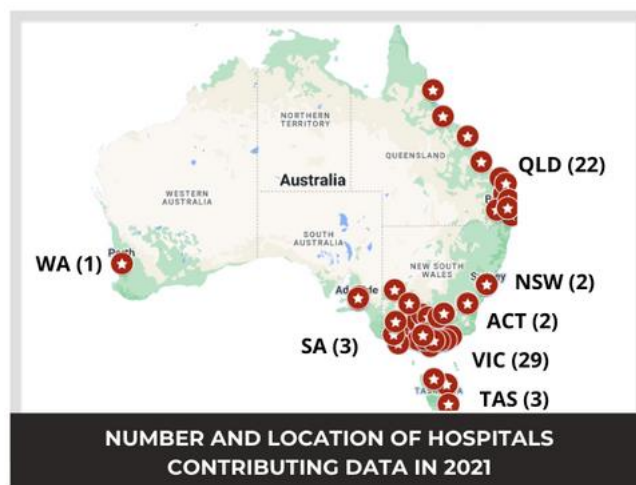
The Australian Stroke Clinical Registry acknowledges the Traditional Owners and custodians of all lands throughout Australia. We pay our respects to all Aboriginal and Torres Strait Islander peoples and their Elders - past, present and emerging.

This report was created on the lands of the Wurundjeri People of the Kulin Nation.
This image by [Alpha](#) features the Yarra River – a key waterway of the Wurundjeri People of the Kulin Nation.

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 record data on patients presenting to hospital with acute stroke and transient ischaemic attack (TIA or 'mini stroke').

Overall, 62 hospitals across seven states and territories provided data for 19,717 adult admissions to hospital in 2021. Summary information on the status of the quality of care provided to people with stroke or TIA in the participating Australian hospitals is outlined in this report.



Information collected by the hospital

Information collected on patients while they are in hospital includes admission and discharge details including whether someone has received:

- Thrombolysis (clot busting medication)
- Clot retrieval procedure (removal of blood clots from the brain)
- Treatment in a stroke unit
- Treatment with an antithrombotic medicine (e.g. aspirin) within 48 hours of a stroke
- Early mobilisation within two days of arriving to a hospital
- A discharge care plan
- Medications on discharge to help prevent future strokes (blood pressure lowering medication, blood thinning medication and cholesterol-lowering medications)

Achievable performance benchmarks are calculated from the data from the best performing hospitals for each of these quality indicators of hospital care. *These benchmarks represent the levels of care which hospitals should aim to achieve.*

Information collected after leaving hospital

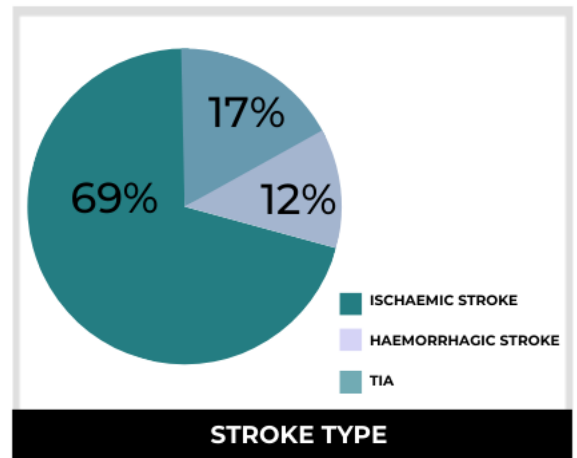
Patients are contacted by the AuSCR between 90 and 180 days after they are hospitalised to complete a survey about their recovery and progress. The follow up information collected includes:

- Current living arrangements
- Readmission to hospital
- Subsequent stroke since discharge
- A measure of disability
- Quality of life assessment covering mobility, self-care, usual activities, pain and discomfort, anxiety and depression
- A rating of overall health on the day the survey was completed using a score of zero to 100; with zero representing the worst health state imaginable and 100 representing the best health state imaginable

PATIENT CHARACTERISTICS

Overall, 44% of all adult patients were female and the average age of adult patients was 73 years. Two children's hospitals collected data in the Paediatric Program contributing information on 22 admissions for people under 18 years of age.

The majority of included adult patients had experienced an ischaemic stroke (69%), which is caused by a blood clot that blocks the blood flow to the brain. In 12% of patients, the stroke occurred due to a burst blood vessel that caused bleeding in the brain, classified as intracerebral haemorrhage. Transient ischaemic attack (TIA), commonly referred to as a mini stroke, is less severe than other stroke types and do not result in permanent disability. TIAs accounted for 17% of all admissions recorded in 2021.

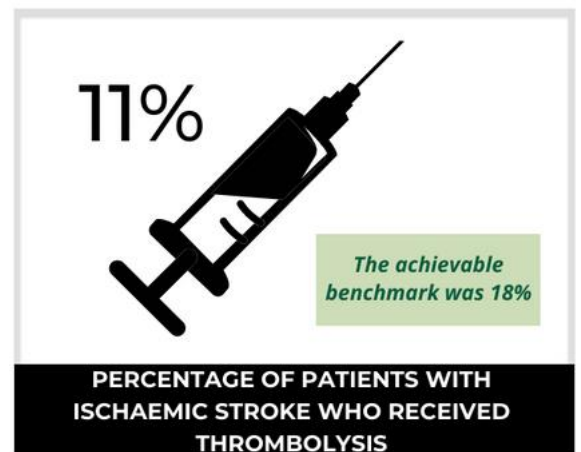


PERFORMANCE BENCHMARKS FOR QUALITY OF CARE IN 2021

CLOT BUSTING MEDICATION

Ischaemic strokes are caused by a blood clot that blocks the blood flow to part of the brain, resulting in a lack of oxygen. Clot-busting medication can dissolve the clot that is causing the stroke and therefore restore oxygen to the brain. This medication, known as thrombolysis, can only be provided in the first few hours following stroke onset, and can reduce the risk of disability.

- In 2021, 11% of patients with an ischaemic stroke received clot busting medication. The top performing hospitals treated 18% of patients this way.
- Less than one third (29%) of patients who received thrombolysis did so in the recommended time of less than an hour from arrival at hospital.
- The three top performing hospitals treated over half of their eligible patients within this time.



CLOT RETRIEVAL PROCEDURE

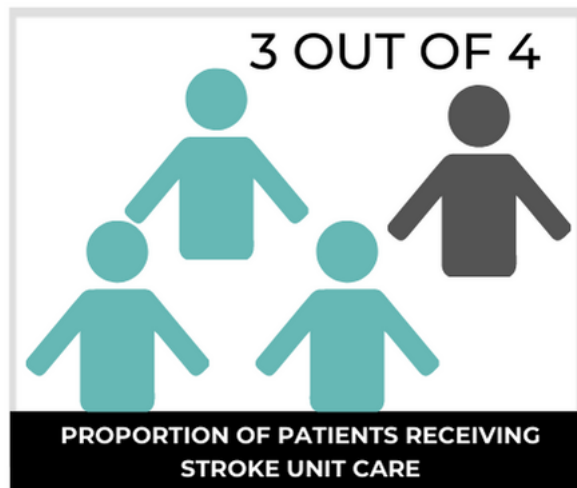
Endovascular clot retrieval (ECR) is a procedure to remove a large blood clot that is found to be blocking a blood vessel in the brain. This treatment is only suitable for patients with ischaemic stroke who meet treatment criteria. Highly specialised skills are required to perform this procedure, and it is only available at some large city hospitals in Australia.

- In 2021, 10% of patients with ischaemic stroke received clot retrieval procedure.
- Clot retrieval procedures were provided at 13 metropolitan hospitals across seven states and territories.

CARE IN A STROKE UNIT

A stroke unit is a ward or area within a hospital that is dedicated to providing care for patients with stroke. Patients who are treated in stroke units more often receive the care they require, and often have better outcomes after stroke.

- *On average, 73% of patients were treated in a stroke unit, with over 1 in 4 missing out on this specialist care.*
- *The top performing hospitals treated 96% of patients in a stroke unit.*
- *Patients who experienced a stroke or mini stroke while already in hospital for a different condition were less likely to receive stroke unit care than those who presented from the community.*



MEDICATION TO REDUCE THE FORMATION OF BLOOD CLOTS

Medications such as aspirin help to reduce blood clots forming in the blood. These are generally recommended within 48 hours of having a stroke. They can improve outcomes for patients with stroke and decrease the chance of having another stroke.

- *On average, 69% of patients received these medications within 48 hours of stroke.*
- *The top performing hospitals provided these medications to 84% of patients.*

SWALLOW SCREEN AND ASSESSMENT

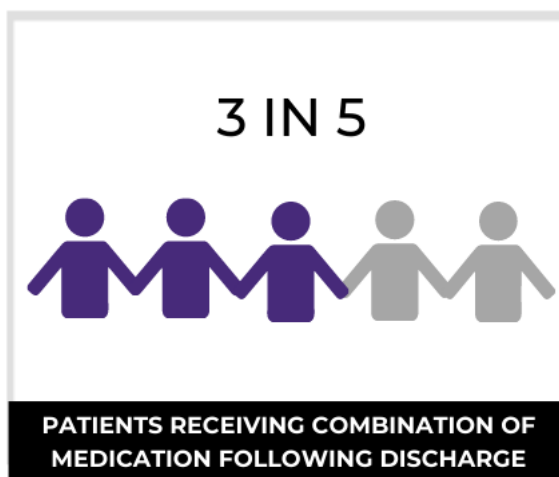
Examining how well someone can swallow after having a stroke is important to identify whether there is a risk of fluid or food entering the lungs. A swallow screen is often performed by nurses, and can identify patients that require a formal assessment by a speech pathologist. This screen or assessment should occur prior to eating, drinking or being given medications that need to be swallowed, and ideally within four hours of arrival to hospital.

- *On average, 29% of patients received a swallow screen or assessment within four hours of hospital arrival, and 58% prior to eating or drinking.*

MEDICATION TO PREVENT ANOTHER STROKE

Medications are given to patients when they leave hospital to reduce the chance of having another stroke. Often these include medications to reduce blood pressure (anti-hypertensive), cholesterol (lipid-lowering medications) and reduce blood clots (antithrombotic medications). Please note that not all patients are eligible to receive these medications.

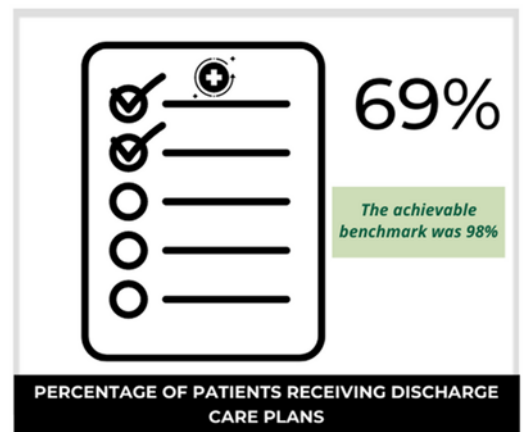
- *On average, at time of discharge from the acute stay in hospital, 74% of patients received antihypertensive medication; 79% received cholesterol lowering medication and 92% received antithrombotic medication.*
- *The top performing hospitals provided these medications to: 94% for antihypertensive medication, 96% for cholesterol lowering medication and 99%, for antithrombotic medication.*
- *60% of eligible patients were discharged on a combination of all three medications.*



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 support people and be provided prior to leaving hospital.

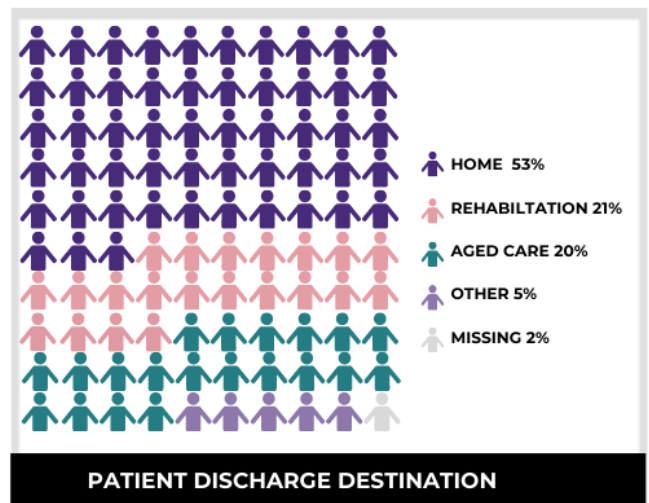
- In 2021, a discharge care plan was provided to 69% of patients.
- The top performing hospitals provided these to 98% of patients.



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 or aged care.

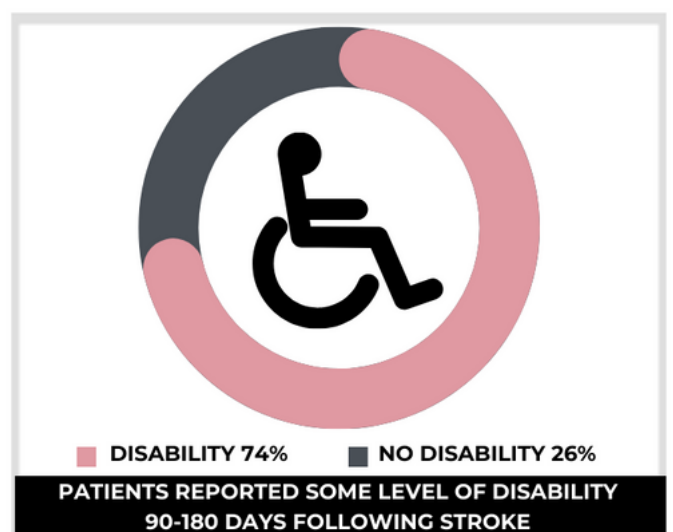
- Of patients that were discharged from hospital, approximately half returned to their usual residence, with most requiring support from family or external services.
- About 1 in 5 patients went to rehabilitation.



HEALTH OUTCOMES

Eligible patients are contacted to complete a survey about their current health status between three and six months after admission to hospital for stroke or TIA.

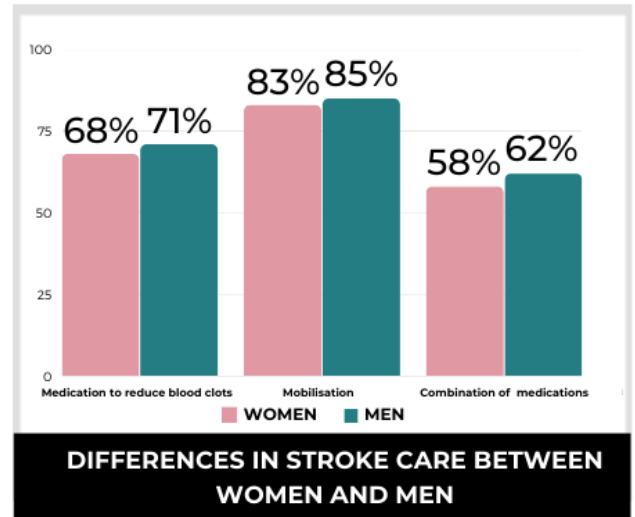
- Overall, 1,557 (9%) patients registered in the AuSCR died in hospital and 18% had died between discharge and 180 days of admission.
- Over 8,800 people living with stroke provided information on their current health during 2021.
- Most (74%) reported some level of disability.
- People living with stroke reported problems with:
 - mobility: 1 in 2
 - self-care: 1 in 3
 - completion of usual activities: 3 in 5
 - pain/discomfort: 1 in 2
 - anxiety or depression: 1 in 2
- Almost half of respondents requested an information pack about stroke and support services from the Stroke Foundation.
- Most (3 in 5) also indicated that they would be willing to receive an invitation to participate in a future research project.



DISPARITY OF STROKE CARE BETWEEN WOMEN AND MEN

Compared to men, women were less likely to:

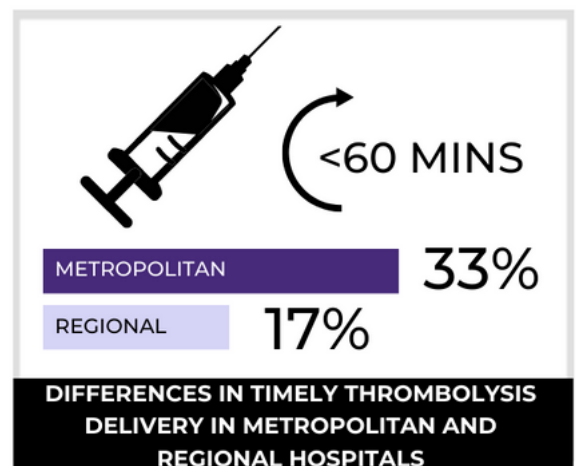
- receive medication to reduce the formation of blood clots in the first two days after stroke (68% vs 71%).
- undertake any out-of-bed activity (e.g. sitting, standing, and walking) following their stroke (known as mobilisation 83% vs 85%).
- receive stroke prevention medication at discharge:
 - blood pressure lowering medication
 - blood thinning medication
 - cholesterol-lowering medications
 - a combination of all three (58% vs 62%)



DISPARITY OF STROKE CARE BETWEEN METROPOLITAN AND REGIONAL HOSPITALS

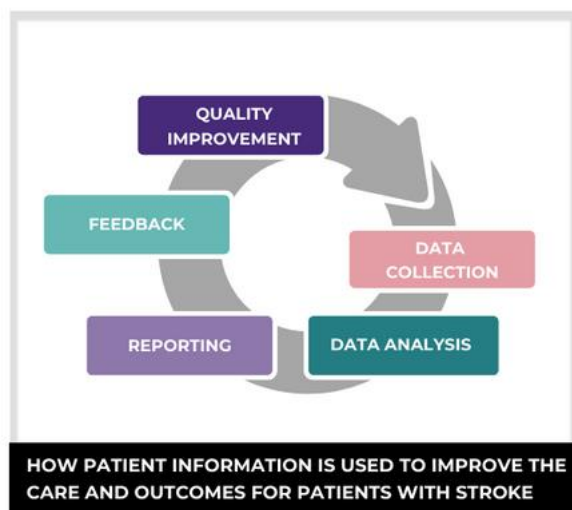
There were also gaps between metropolitan and regional hospitals in stroke care.

- On average, metropolitan and inner regional hospitals provided clot busting medication (thrombolysis) to more patients (11%) than outer regional hospitals (8%).
- This medication was provided in a more timely manner in metropolitan hospitals (33% under 60 minutes vs 17% under 60 minutes in regional hospitals)
- Stroke unit care is less common in regional (vs metropolitan) hospitals (80% vs 68%).
- Conversely, patients in regional hospitals were more likely to be provided with all three medications to prevent recurrent stroke at discharge (71% regional vs 56% metropolitan).
- Discharge care plans were provided to patients less often at regional hospitals (56% compared to 82% in metropolitan hospitals).



INFORMATION FOR PATIENTS AND CARERS

Information about patient 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. Patients may choose to have their information removed (opted-out) from the registry, or request that they are not contacted about their progress after they leave hospital. Patients are not 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
Freecall 1800 673 053 for queries

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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.

www.enableme.org.au

enableme is a place to talk to, and seek support from, other people who have experienced stroke. 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.

Strokeline: 1800 787 653

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

Carers Australia: 1800 242 636

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

Beyond Blue: 1300 224 636

Provides compassionate information for those experiencing mood disorders. The freecall phone line is available 24 hours a day, 7 days a week.

