Government of **Western Australia**
Department of **Health**

Training Centre in Sub-acute Care (TRACS WA)

Aiming for Excellence *in* Stroke Care

A tool for quality improvement in stroke care

Developed by TRAining Centre in Subacute Care (TRACS WA)

February 2016

For enquiries contact tracsWA@health.wa.gov.au

health.wa.gov.au

Introduction

The aim of the Stroke Quality Improvement Tool (the Tool) is to provide a simple process for services to:

- Demonstrate achievement against evidence based "best practice" standards.
- Demonstrate the application of the Clinical Guidelines for Stroke Management (2010) recommendations developed by the National Stroke Foundation.[1]
- Assess performance against Australian Commission on Safety and Quality in Health Care (ACSQHC) Acute Stroke Clinical Care Standard.[2]
- Assess performance against the National Safety and Quality Health Standards (NSQHS)[3] that underpin the Acute Stroke Clinical Care Standard.
- Assess performance against WA Stroke KPIs[4] that are mapped to the NSQHS standards.
- Record and report evidence of achievement.
- Identify the areas to be improved and the strategies to do so.
- Implement positive change.

The Tool is informed by the following documents:

Clinical Guidelines for Stroke Management (2010)

The Clinical Guidelines for Stroke Management (2010) developed by the National Stroke Foundation recommends evidence based practices related to the recovery from stroke and TIA and provides a flexible framework for clinicians to follow that complements their clinical judgment and patient preference.

Acute Stroke Clinical Care Standard (2015)

The Acute Stroke Clinical Care Standard (ASCCS) is made up of a group of seven quality statements that describe the care that a patient should receive if they are having, or suspected of having, a stroke. The Acute Stroke Clinical Standard developed by the ACSQHS is informed by the National Stroke Foundation Clinical Guidelines, stroke initiatives developed by the National Stroke Coalition and other state and territory initiatives developed by stroke networks. The " Standard "was endorsed by the AHMAC (Australian Health Ministerial Advisory Council) and the Council of Australian Governments (COAG) in June 2015.

Acute Stroke Clinical Care Standard	
Quality statement 1 – Early assessment	Quality statement 2 – Time critical therapy
Quality statement 3 – Stroke unit care	Quality statement 4 – Early rehabilitation
Quality statement 5 – Minimizing risk of another stroke	Quality statement 6 – Carer training and support

---

[1] National Stroke Foundation. Clinical Guidelines for Stroke Management (2010). Melbourne, Australia.
[2] Australian Commission of Safety and Quality in Health Care. Acute Stroke Clinical Care Standard. Sydney: ACSQHC, 2015
[3] Australian Commission on Safety and Quality in health Care (ACSQHS) (September 2011) Sydney
[4] ACCD. 2015

WA Health Stroke KPIs (2015)

Key Performance Indicators (KPIs) assess achievement against particular goals. A set of twelve standardised KPIs for stroke care in WA have been developed that encompass both acute and rehabilitation stroke care and meet the requirement of the Australian Stroke Care Registry (AuSCR) [5] data collection as well as significant elements of National Stroke Foundation (NSF) acute and rehabilitation audits. The KPIs will enhance reporting for stroke care across WA Health in annual departmental reports.

The WA Health Stroke KPIs are also underpinned by the NSQHS Standards and EQuIP content, National Health Performance Framework (NHPF) reporting and WA Stroke Model of Care Recommendations.

WA Health Stroke KPIs

KPI 1 – Receiving stroke unit care a. **Admission into a stroke unit**	**KPI 2 – Receiving intravenous thrombolysis if ischaemic stroke**
KPI 3 – Brain imaging	**KPI 4 – Fever, Sugar and Swallowing (FeSS) Management**

KPI 5 – Aspirin within 48 hours of stroke onset if ischaemic stroke	**KPI 6 –Early Rehabilitation**
	
	    a. **Assessment by PT within 48 hours**
	    b. **Rehab within 48 hours of assessment**

KPI 7 – Minimise risk of another Stroke	**KPI 8 – Transition from hospital care**
	
	    a. **Written Care plan**
	    b. **Discharge Summary sent to GP**

KPI 9 – Patient assessed for rehabilitation
 	
    a.   **Patient met with MDT team to discuss care plan**
    b.   **Rehabilitation goal setting**
    c.   **Referred for further rehab**
	KPI 10 – Carer training and support
	
	    a. **Carer support needs training**
	    b. **Carer training**

KPI 11 TIA Management	**KPI 12 – Annual Education**

---

[5] Australian Stroke Clinical Registry http://www.auscr.com.au/auscr/ accessed June 2015

Why use this Tool?

The Stroke Quality Improvement Tool is guided by the WA Health Stroke Education Framework[6], developed as part of a state-wide consistent approach to quality service delivery through comprehensive stroke specific training and development. The focus of the framework is on health sites developing a culture of continuous learning and therefore continuous improvement in service delivery.

By completing the quality tool, a service is able to collect information and evidence at a patient, clinician, ward, and organisational level to easily demonstrate:

- Performance against the Acute Stroke Clinical Standard and NHSQ standards.
- Degree to which WA Stroke KPIs have been / will be met.
- Application of the recommendations from the Clinical Guidelines for Stroke Management.
- Evidence of best practice in stroke care.
- Areas that need improving by clearly identifying gaps between expected and actual performance.
- Changes in performance over time through tracking and monitoring performance.

The Tool incorporates the seven Acute Stroke Clinical Standard Quality Statements, the twelve WA Health Stroke KPIs as well as two additional quality statements addressing Rehabilitation and Palliative Care as identified in the NSF Clinical Guidelines recommendations.

---

[6] WA Health Stroke Education Framework: A state-wide approach for stroke services training and development. TRACS WA June 2015.

Using the Stroke Quality Tool

The Tool relies on health sites to self-assess against the Acute Stroke Clinical Care Standard, WA Health Stroke KPIs and NSF Clinical Guideline recommendations. Self-assessment enables a health site to:

- Review the extent to which they meet the standard by considering the purpose of the quality statements and associated elements.
- Review the extent to which they meet the WA Health Stroke KPIs.
- Record evidence.
- Acknowledge and share areas where best practice is evident.
- Identify areas for improvement and actions to implement improvement.
- Plan for future improvement activities.

The tool is a fluid document that is designed to be referred to and updated on a continuous basis.

What is evidence?

Evidence is any document or information that demonstrates the way in which a service provider meets the requirements of a standard, a KPI or clinical recommendations.

Identifying, gathering and organizing evidence should be an ongoing activity as part of the self-assessment cycle. Evidence should be up to date and easily accessible for review.

Aiming for Excellence: A guide for Subacute Care

This Stroke Quality Improvement Tool can be used in conjunction with *Aiming for Excellence: A guide for Subacute Care*,[7] (the guide) developed by TRACS WA to support subacute services to achieve our vision that:

All West Australians requiring subacute care receive coordinated, best practice care from skilled, engaged and committed clinicians.
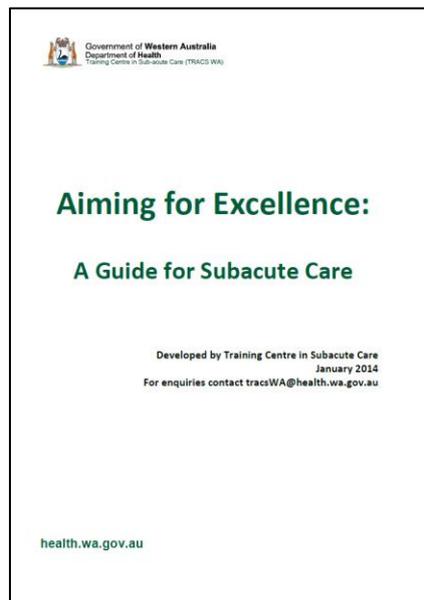
The guide assists health sites complete the quality tool by:

- Outlining a step by step process to review team progress.
- Providing supporting resources designed to collect, synthesize, collate and document evidence to demonstrate performance relevant to stroke care.
- Providing resources designed to plan and implement quality improvement strategies.

---

[7] Training Centre in Subacute Care. Aiming for Excellence: A guide for Subacute Care. WA Department of Health 2014

How to complete the Tool

Completing the Tool is designed to be a simple task that supports your clinical activity. Review instructions below prior to completing the rest of the document. It is organised by listing the Acute Stroke Clinical Care Standard against the WA Health KPIs.

Stroke Clinical Care Quality Statement 1 – Early assessment

A person with a suspected Stroke is immediately assessed at first contact using a validated stroke screening tool such as F.A.S.T. (Face Arm, Speech and Time) test.

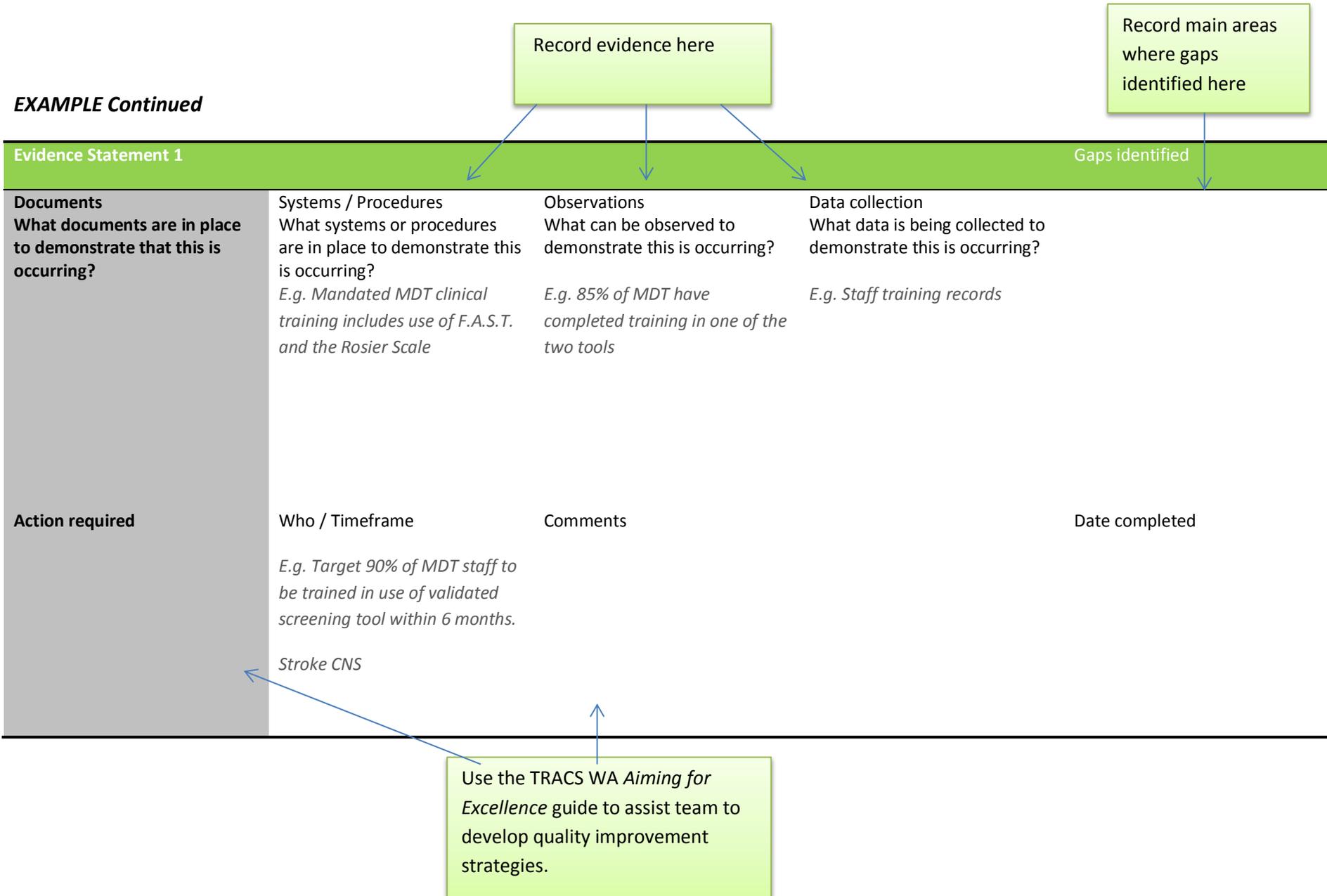**WA Health Stroke KPI**

1- Receiving Stroke Unit Care	12 - Annual Education

EXAMPLE

Purpose	Elements	

To reduce the time to treatment for people with suspected stroke	☐ Clinicians have been trained on validated stroke screening tools such as:
	    o F.A.S.T.
	    o ROSIER scale
	☐ Clinicians have access to validated screening tools
	☐ Clinicians are aware of and are using clinical stroke pathways
	☐ Clinicians have access to and can operate Telehealth services
	☐ Stroke patient transfer procedures are clearly outlined and understood by all staff
	☐ Stroke patient notes are clearly documented and accessible to all staff
	☐ Environment is conducive to early response
	☐ Health Service supports and promotes stroke awareness education
	
	☐ Activities support NSQHS Standards and Equip content
		Work through elements to assess if your health site is demonstrating these elements.

EXAMPLE Continued

Evidence Statement 1				Gaps identified
Documents **What documents are in place to demonstrate that this is occurring?**	Systems / Procedures What systems or procedures are in place to demonstrate this is occurring? *E.g. Mandated MDT clinical training includes use of F.A.S.T. and the Rosier Scale*	Observations What can be observed to demonstrate this is occurring? *E.g. 85% of MDT have completed training in one of the two tools*	Data collection What data is being collected to demonstrate this is occurring? *E.g. Staff training records*	
Action required	Who / Timeframe *E.g. Target 90% of MDT staff to be trained in use of validated screening tool within 6 months.* *Stroke CNS*	Comments		Date completed

Use the TRACS WA *Aiming for Excellence* guide to assist team to develop quality improvement strategies.

Suggestions for getting started:

- Identify a team of people who are committed to quality improvement in stroke care.
- Familiarise yourself with these resources:
    - Clinical Guidelines for Stroke Management (2010)
    - Acute Stroke Clinical Care Standard
    - WA Health Stroke Key Performance Indicators
    - GEKO (Governance Evidence Knowledge Outcomes)
- Refer to the *TRACS WA Aiming for Excellence Guide* to consider a suitable process to design, plan and implement quality improvement strategies in your workplace.
- Familiarise yourself with the Quality Tool.
- Review the overall standards and elements and determine the area /s that your team will focus on for quality improvement.
- Make quality improvement an agenda item for MDT meetings or other forums.
- Continually review progress against standards.

Quality Recording

Stroke Clinical Care Quality Statement 1 – Early assessment

A person with a suspected stroke is immediately assessed at first contact using a validated stroke screening tool such as F.A.S.T. (Face Arm, Speech and Time) test.

WA Health Stroke KPI

1- Receiving Stroke Unit Care   12 - Annual Education

Purpose	Elements
To reduce the time to treatment for people with suspected stroke.	☐ Clinicians have access to and have been trained on validated stroke screening tools such as: o F.A.S.T., ROSIER scale, NIHSS ☐ ☐ Clinicians are aware of and using clinical stroke pathways where dedicated stroke unit care not available ☐ Clinicians have access to and can operate Telehealth services ☐ Stroke patient transfer procedures are clearly outlined and understood by all staff ☐ Stroke patient notes are clearly documented and accessible to all staff ☐ Environment is conducive to early response ☐ Health Service supports and promotes stroke awareness education ☐ Activities support NSQHS Standards and Equip content

Evidence Statement 1				Gaps identified
Documents **What documents are in place to demonstrate that this is occurring?**	Systems / Procedures What systems or procedures are in place to demonstrate this is occurring?	Observations What can be observed to demonstrate this is occurring?	Data collection What data is being collected to demonstrate this is occurring?	
Action required	Who / Timeframe	Comments		Date completed

Clinical Care Quality Statement 2 – Time critical therapy

A person with isachaemic stroke for whom reperfusion treatment is clinically appropriate, and after brain imaging excludes haemorrhage, is offered reperfusion treatment in accordance with the settings and timeframes recommended in the *Clinical guidelines for stroke management*.

WA Health Stroke KPI

2 – Receive intravenous thrombolysis if isachaemic stroke	3 – Brain imaging
5 – Aspirin within 48 hours of stroke onset if ischaemic stroke	

Purpose	Elements
To ensure patients, for whom reperfusion treatment is indicated, have the opportunity to be considered for this choice of treatment within acceptable timeframe.	☐ Urgent imaging is arranged for patients suspected of a stroke ☐ Systems are in place for urgent imaging to occur ☐ Expert clinical input is available 24 hours ☐ Clinicians trained to deliver and monitor treatments appropriately ☐ Medication safety policies and procedures are in place and adhered to ☐ Clinicians to include patient and carer in decision making and explain risks and benefits ☐ Clinicians are aware of and using clinical stroke pathways ☐ Clinicians have access and can operate Telehealth services ☐ Activities support NSQHS Standards and Equip content

Evidence Statement 2				Gaps identified
Documents **What documents are in place to demonstrate that this is occurring?**	Systems / Procedures What systems or procedures are in place to demonstrate this is occurring?	Observations What can be observed to demonstrate this is occurring?	Data collection What data is being collected to demonstrate this is occurring?	
Action required	Who / Timeframe	Comments		Date completed

Acute Stroke Clinical Care Standard Quality Statement 3 – Stroke unit care

A patient with stroke is offered treatment in a stroke unit as defined in the *Acute stroke services framework*. (NSF)

WA Health Stroke KPI
1 - Care in an organised acute stroke unit

2 – Receive intravenous thrombolysis if isachaemic stroke	3 – Brain imaging
4 – FESS Management	6 – Early Rehabilitation
12 – Annual education	

Purpose	Elements
To ensure patients with stroke receive multidisciplinary stroke care in a stroke unit. *Differences in regional and rural health services to be considered along with the preferences of the patient.*	☐ Urgent imaging is arranged for patients suspected of a stroke ☐ Systems are in place for urgent imaging to occur ☐ Expert clinical input is available 24 hours ☐ Systems, infrastructure and resources are in place for organised stroke unit care ☐ Stroke patient is treated by a team of health professionals that specialise in stroke care ☐ Stroke unit care is delivered by an interprofessional team that includes doctors, nurses, a physiotherapist, a speech pathologist, an occupational therapist, a dietician, a social worker and a pharmacist. ☐ Co-located beds within a geographically defined unit ☐ Clinicians meet a least once per week to discuss patient care ☐ Clinicians trained to deliver and monitor treatments appropriately ☐ Medication safety policies and procedures are in place and adhered to

	☐ Clinicians to include patient and carer in decision making and explain risks and benefits
	☐ Clinicians are aware of, and are using clinical stroke pathways
	☐ Clinicians have access and can operate Telehealth services
	☐ Clinicians update skills and knowledge and document evidence
	☐ Activities support NSQHS Standards and Equip content

Evidence Statement 3				Gaps identified
Documents **What documents are in place to demonstrate that this is occurring?**	Systems / Procedures What systems or procedures are in place to demonstrate this is occurring?	Observations What can be observed to demonstrate this is occurring?	Data collection What data is being collected to demonstrate this is occurring?	
Action required	Who / Timeframe	Comments		Date completed

Acute Stroke Clinical Care Standard Quality Statement 4 – Early rehabilitation

A patient's needs and rehabilitation needs and goals are assessed by staff trained in rehabilitation within 24-48 hours pf admission to the stroke unit. Rehabilitation is started as soon as possible depending on the patient's clinical condition and their preferences.

WA Health Stroke KPI

6 – Early Rehabilitation   9 – Patient assessed for Rehabilitation

Purpose	Elements
To assess patients with stroke for rehabilitation while the patients are in hospital.	☐ Assess rehabilitation needs and goals within 24-48 hours of admission to hospital ☐ Validated tools are available and used by trained staff ☐ Interdisciplinary practice is evident through team meetings and other forms of communication ☐ Clinicians trained to deliver rehabilitation assessment and interventions ☐ Processes and procedures are in place so rehabilitation can commence as soon as possible in the hospital ☐ Communication pathways in place with other rehabilitation providers for ongoing care ☐ Clinicians are aware of, and using clinical stroke pathways ☐ Clinicians have access and can operate Telehealth services ☐ Activities support NSQHS Standards and Equip content

Evidence statement 4				Gaps identified
Documents **What documents are in place to demonstrate that this is occurring?**	Systems / Procedures What systems or procedures are in place to demonstrate this is occurring?	Observations What can be observed to demonstrate this is occurring?	Data collection What data is being collected to demonstrate this is occurring?	
Action required	Who / Timeframe	Comments		Date completed

Acute Stroke Clinical Care Standard Quality Statement 5 – Minimizing risk of another stroke

A patient with stroke, while in hospital, starts treatment and education to reduce their risk of another stroke

WA Health Stroke KPI

6– Early Rehabilitation	7 – Minimise risk of another stroke
8 – Transition from hospital	9 – Assessed for rehabilitation
10 – Carer training and support	

Purpose	Elements
To ensure a patient with stroke, while in hospital, starts treatment and education to reduce their risk of another stroke.	☐ Patients and carers are educated about stroke and risk of another stroke as soon as practicable after admission ☐ Patients are provided with written information regarding risk of stroke ☐ Access to interpreters and information in languages other than English is provided ☐ Medication is explained to patient and provided in a written format ☐ Stroke information is widely available to patients and carers ☐ Information is easily accessible ☐ Team engages with local community groups to provide preventative education around stroke ☐ Activities support NSQHS Standards and Equip content

Evidence Statement 5				Gaps identified
Documents **What documents are in place to demonstrate that this is occurring?**	Systems / Procedures What systems or procedures are in place to demonstrate this is occurring?	Observations What can be observed to demonstrate this is occurring?	Data collection What data is being collected to demonstrate this is occurring?	
Action required	Who / Timeframe	Comments		Date completed

Acute Stroke Clinical Care Standard Quality Statement 6 – Carer training and support

A patient with stroke, while in hospital, starts treatment and education to reduce their risk of another stroke

WA Health Stroke KPI

7 - Minimise risk of another stroke	8 – Transition from hospital care

10 – Carer training and support

Purpose	Elements
To provide carers with the skills and knowledge on how to support and care for a patient with stroke.	☐ Carers are provided with practical education and training to support their management of care including appropriate written guidance and information ☐ Carers are given information about supports in the community prior to patient leaving hospital ☐ Access to interpreters and information in languages other than English is provided ☐ Medication is explained to carer and provided in a written format ☐ Stroke information is available to carers ☐ Stroke clinicians are available to answer questions and assist carer to understand their caring role ☐ Activities support NSQHS Standards and Equip content

Evidence Statement 6				Gaps identified
Documents **What documents are in place to demonstrate that this is occurring?**	Systems / Procedures What systems or procedures are in place to demonstrate this is occurring?	Observations What can be observed to demonstrate this is occurring?	Data collection What data is being collected to demonstrate this is occurring?	
Action required	Who / Timeframe	Comments		Date completed

Acute Stroke Clinical Care Standard Quality Statement 7 – Transition from hospital care

Before a patient with stroke leaves the hospital they are involved in the development of an individualised care plan that describes the ongoing care that the patient will require after they leave hospital. The plan includes rehabilitation goals, lifestyle modifications and medications needed to manage risk factors, any prescribed equipment they need, follow-up appointments and contact details for ongoing support services available in the community. This plan is provided to the patient before they leave hospital, and to their GP

WA Health Stroke KPI

8 - Transition from hospital care   9 – Assessed for rehabilitation

Purpose	Elements
To ensure patients with stroke have an individualised care plan before they leave hospital. This is separate to a clinical discharge summary.	☐ Patients are provided with individualised care plans ☐ Patients and carers have a meeting with multidisciplinary team to explain plan ☐ Patients and carers are provided with contact details of appropriate clinicians to ask questions ☐ GP is provided with plan within 48 hours of discharge from hospital ☐ Access to interpreters is provided ☐ Patients are provided with contact details of appropriate external agencies ☐ Activities support NSQHS Standards and Equip content

Evidence Statement 7				Gaps identified
Documents **What documents are in place to demonstrate that this is occurring?**	Systems / Procedures What systems or procedures are in place to demonstrate this is occurring?	Observations What can be observed to demonstrate this is occurring?	Data collection What data is being collected to demonstrate this is occurring?	
Action required	Who / Timeframe	Comments		Date completed

WA Stroke Foundation Clinical Guidelines Recommendation – Rehabilitation

Rehabilitation is an holistic process that should begin the first day after stroke with the aim of maximizing the participation of the person with stroke in the community. To achieve this tailored interventions that focus on impairment, activity and participation levels (based on WHO International Classification of Functioning Model) should be considered.

WA Health Stroke KPI

6 – Early rehabilitation   9 – Assessed for rehabilitation

Purpose	Elements
To ensure patients with stroke are provided with appropriate rehabilitation activities to maximise their integration and participation in the community.	☐ Assess rehabilitation needs and goals within 24-48 hours of admission to hospital ☐ Validated tools are available and used by trained staff ☐ Patients and carers work with clinicians to develop goal oriented strategies ☐ Patients provided with as many relevant, structured activities as possible within first six months of stroke. ☐ Patients and carers are trained by staff in how to continue rehabilitation activities in the community ☐ Written information and information about community rehabilitation interventions is provided to patients and carers ☐ Review is scheduled with patient. ☐ Activities support NSQHS Standards and Equip content

Evidence Statement - Rehabilitation				Gaps identified
Documents **What documents are in place to demonstrate that this is occurring?**	Systems / Procedures What systems or procedures are in place to demonstrate this is occurring?	Observations What can be observed to demonstrate this is occurring?	Data collection What data is being collected to demonstrate this is occurring?	
Action required	Who / Timeframe	Comments		Date completed

WA Stroke Foundation Clinical Guidelines Recommendation – Palliative

People with Stroke who are dying should receive care consistent with the principles and philosophies outlined in the Standards for Providing Quality Palliative Care for all Australians. [8]

WA Health Stroke KPI

1 – Receiving stroke unit care	10 – Carer training and support

12 – Annual education

Purpose	Elements
To ensure patients with stroke and their families are provided with appropriate palliative care and support.	☐ Accurate assessment of prognosis or imminent death is provided by qualified health professional ☐ Patients and their families have access to specialist palliative care services ☐ Palliative care is consistent with principles and philosophies of quality palliative care ☐ Staff have access to Standards for Providing Quality Palliative Care for all Australians ☐ Staff have access to the WA Health End of Life Framework 2016 ☐ Staff that support palliative patients have received professional development in communication skills ☐ Activities support NSQHS Standards and Equip content

---

[8] Palliative Care Australia. Standards for Providing Quality Palliative Care for All Australians. (2005)

Evidence Statement - Rehabilitation				Gaps identified
Documents **What documents are in place to demonstrate that this is occurring?**	Systems / Procedures What systems or procedures are in place to demonstrate this is occurring?	Observations What can be observed to demonstrate this is occurring?	Data collection What data is being collected to demonstrate this is occurring?	
Action required	Who / Timeframe	Comments		Date completed