



strokefoundation

Australian Stroke Coalition



---

# AUSTRALIAN STROKE-SPECIFIC EDUCATION FRAMEWORK

## TABLE OF CONTENTS

Forward .....	3
Introduction .....	4
Aims .....	4
Who should use the Stroke-Specific Education Framework? .....	5
Inter-professional education .....	5
Promotion of evidence-based practice .....	5
Stroke-Specific Education Framework: developing a stroke skilled workforce .....	7
Generic competencies .....	7
Stroke-specific competences .....	8
Work-based learning .....	8
Continuing professional development .....	8
How to use the Stroke-Specific Education Framework .....	9
Format of the Stroke-Specific Education Framework.....	10
Elements of care on the Stroke Pathway .....	12
1. Raising awareness of stroke as a medical emergency .....	13
2. Managing Primary & Secondary Risk .....	14
3. Information, advice and support to those affected by Stroke .....	15
4. TIA assessment and management at time of event and at follow-up .....	17
5. Urgent response: pre-hospital assessment and management.....	18
6. Assessment (stroke) .....	20
7. Early treatment (stroke).....	21
8. High-quality specialist rehabilitation .....	24
9. End-of-life care .....	26
10. Seamless transfer of care .....	28
11. Long-term care and support.....	29
12. Review .....	31
13. Participation in community life.....	32
14. Return to work.....	34
Glossary and acronyms .....	37

## Forward

The Australian Stroke Coalition (ASC) was established by the National Stroke Foundation (NSF) and Stroke Society of Australasia (SSA) on 11 July 2008. The ASC brings together representatives from groups and organisations working in the stroke field, such as clinical networks and professional associations/colleges. It works to tackle agreed priorities to improve stroke care, reduce duplication among groups and strengthen the voice for stroke care at a national and state level.

### ASC aims

- Provide a critical communication link between relevant organisations and their members regarding stroke care in Australia.
- Develop a set of priorities for stroke care based on gaps identified in the National Stroke Audit and other health data sources.
- Determine a coordinated strategy to improve identified priority areas.
- Link ongoing and new initiatives at a state and national level which improve stroke services and set priorities and tasks that can be adapted locally.

### Members of the coalition

[Stroke Society of Australasia](#), [National Stroke Foundation](#), [Stroke Services NSW](#), [QLD Stroke Clinical Network](#), [Victorian Stroke Clinical Network](#), SA stroke network, WA stroke network, Tasmania stroke network, Northern Territory, Australian Capital Territory, [Australian Physiotherapy Association](#), [Australasian College for Emergency Medicine](#), [Australian General Practice Network](#), [Dietitians Association of Australia](#), [Occupational Therapy Australia](#), [Royal College of Nursing Australia](#), [Royal Australasian College of Physicians](#), [Australasian Faculty of Rehabilitation Medicine](#), [Speech Pathology Australia](#), [The Council of Ambulance Authorities](#), Stroke Consumers.

## **Introduction**

The Australian Stroke Coalition (ASC) provides a critical communication link between relevant organisations and their members about stroke care in Australia. The Workforce, Training and Professional Development working group identified one of its goals to be: Within 5 years 75% of stroke clinicians will be participating in nationally recognised training that furthers their specialisation in stroke ensuring they are up to date with current evidence. Developing a national framework for education is an important step in addressing this goal.

### **Development of a stroke education framework**

The ASC has built on the extensive work done in the United Kingdom as part of the UK National Stroke Strategy (2007). In this strategy, 10 priority areas were identified for stroke, including workforce capacity. The UK strategy recognised that staff working in stroke had variable levels of knowledge and skills and that there was no nationally recognised stroke specific training framework.

A UK Forum for Stroke Training was established to provide nationally recognised, quality assured and transferable education and learning programs in stroke at pre-registration and postgraduate level. This forum established a steering group that coordinated the development of the UK Stroke-Specific Education Framework (UK SSEF).

The ASC approached the steering committee and kindly received permission to adapt the framework for the Australian health system.

### **Why we need a Stroke-Specific Education Framework in Australia**

Best practice stroke services require care from staff that have specialist knowledge, training and skills. Workforce issues such as staff shortages, temporary and rotating staff, and variability in staff skills and experience can all impact on the level of stroke services. Data from the National Stroke Audit (Acute Services and Rehabilitation Services) demonstrate that only 50–60% of staff have access to stroke-specific education programs. Australia currently has no national framework to overcome these issues.

The overall purpose of the Stroke-Specific Education Framework (SSEF) is to create recognised, quality assured and transferable recommendations for stroke training in Australia. It will also outline stroke-specific knowledge and skills that need to be added to the generic skills that health, social, voluntary and independent care staff already possess.

### ***Aims***

- To assist education providers to develop consistent stroke training, programs and curriculum for all stroke clinicians
- Encourage delivery of evidence-based stroke care as outlined in the national stroke guidelines by encouraging stroke specific education.

## ***Who should use the Stroke-Specific Education Framework?***

The SSEF will be useful for people or groups who provide stroke-specific training and those working in health, social, voluntary and educational services who are, or who are likely to be, in contact with people who have had a stroke or a transient ischaemic attack (TIA). These include:

- Clinical educators
- Health professionals
- Trainers
- Professional colleges
- Undergraduate and post graduate universities
- Other education providers (e.g. TAFE).
- Course designers
- Health, social, voluntary and independent sector organisations
- Independent providers of enhanced services
- Patient organisations and user groups and individuals.

## ***Inter-professional education***

Stroke care importantly involves an interdisciplinary team of professionals who work closely together. Education, therefore, should reflect this approach. The ASC developed the SSEF to promote strong inter-professional education and training, and we encourage those who use the framework to apply it in that context.

## ***Promotion of evidence-based practice***

Existing resources such as the National Clinical Guidelines for Stroke Management (2010) should be used in addition to the SSEF given the considerable overlap. The guidelines can be accessed from [www.strokefoundation.com.au/clinical-guidelines](http://www.strokefoundation.com.au/clinical-guidelines).

The SSEF should also link with more general knowledge and skills around the understanding, interpretation and application of what constitutes evidence. Part of this understanding is about research design, i.e. how much trust can be placed in the results of different studies. The following table describes different levels of evidence (Level I being the highest level) connected with different research questions.

**Table 1. Designations of levels of evidence according to type of research question (NHMRC 2008)**

<b>Level</b>	<b>Intervention</b>	<b>Diagnosis</b>	<b>Prognosis</b>	<b>Aetiology</b>	<b>Screening</b>
I	A systematic review of level II studies	A systematic review of level II studies	A systematic review of level II studies	A systematic review of level II studies	A systematic review of level II studies
II	A randomised controlled trial	A study of test accuracy with: an independent, blinded comparison with a valid reference standard, among consecutive patients with a defined clinical presentation	A prospective cohort study	A prospective cohort study	A randomised controlled trial

III-1	A pseudorandomised controlled trial (i.e. alternate allocation or some other method)	A study of test accuracy with: an independent, blinded comparison with a valid reference standard, among non-consecutive patients with a defined clinical presentation	All or none	All or none	A pseudorandomised controlled trial (i.e. alternate allocation or some other method)
III-2	A comparative study with concurrent controls: <ul style="list-style-type: none"> <li>• Non-randomised, experimental trial</li> <li>• Cohort study</li> <li>• Case-control study</li> <li>• Interrupted time series with a control group</li> </ul>	A comparison with reference standard that does not meet the criteria required for Level II and III-1 evidence	Analysis of prognostic factors amongst untreated control patients in a randomised controlled trial	A retrospective cohort study	A comparative study with concurrent controls: <ul style="list-style-type: none"> <li>• Non-randomised, experimental trial</li> <li>• Cohort study</li> <li>• Case-control study</li> </ul>
III-3	A comparative study without concurrent controls: <ul style="list-style-type: none"> <li>• Historical control study</li> <li>• Two or more single arm study</li> <li>• Interrupted time series without a parallel control group</li> </ul>	Diagnostic case-control study	A retrospective cohort study	A case-control study	A comparative study without concurrent controls: <ul style="list-style-type: none"> <li>• Historical control study</li> <li>• Two or more single arm study</li> </ul>
IV	Case series with either post-test or pre-test/post-test outcomes	Study of diagnostic yield (no reference standard)	Case series, or cohort study of patients at different stages of disease	A cross-sectional study	Case series

## Stroke-Specific Education Framework: developing a stroke skilled workforce

The SSEF is based around the Stroke Pathway and described in 14 elements of care. The SSEF plays just one part in the development of a stroke-skilled workforce. An individual can demonstrate that they have the appropriate knowledge, understanding, skills and abilities listed in the SSEF as a result of training. But to be truly considered as stroke skilled they need to be able to combine the theory learned in their training with clinical practice.

The combination of theory and practice should result in progressive learning as demonstrated by continuing professional development (CPD). Generic skills and competences such as clinical skills, ethics, communication and team-working are fundamental to stroke-specific skills and work-based learning.

Individuals should also be aware of current guidelines and recommendations, and keep up to date with advances in practice. The relationship between generic and stroke-specific competences, as well as work-based learning, are illustrated in the following diagram.



Acknowledgement: UK 2010

### **Generic competencies**

Generic competences relate to the behaviour and skills expected of someone working in health or social care (or the voluntary sector) who provides a service for others. They could include leadership, communication and advocacy, or the ability to train, research or manage. Generic competences may also involve the understanding and ability to undertake quality improvement activities. The generic skills required to work effectively, independently or as part of a team, are also important.

## ***Stroke-specific competences***

The SSEF is guided by the 14 elements of care in the Stroke Pathway. The SSEF specifies the stroke-specific knowledge and skills that an individual should have if they are working with those affected by stroke. To co-ordinate stroke services and support, organisations and staff should work in partnership and be risk aware.

## ***Work-based learning***

The SSEF defines the knowledge and skills that should be provided in training, and these need to be put into practice for workforce development to be effective. The degree of independence expected from individuals for a particular task (whether a physical task or a decision-making process) will vary according to the level of learning, professional group and local clinical environment.

In many learning situations the individual will:

- observe a task or learn about a task performed by someone else
- perform the task with help
- perform the task without supervision (including the management of complications and variations), or
- gain experience such that they are able to demonstrate and supervise another learner.

To reinforce their learning, individuals should reflect on how their practice relates to the knowledge they have recently acquired. Ideally, this involves discussion of work-based practice opportunities with a clinical supervisor and keeping a written record of these developmental experiences, which will vary according to the complexity of the task.

As part of the learning experience, individuals should be given time to consider how their practice relates to their factual knowledge. They should also be able to ask for the advice of a supervisor or mentor who is aware of the learning outcomes of the training. Training that includes this element of work-based consolidation of learning are much more likely to be compliant with the SSEF.

## ***Continuing professional development***

CPD is crucial for maintaining workforce skills and developing new knowledge and skills, and for service redesign and progression. Health, social, voluntary and independent care providers who use the SSEF to develop CPD programs should be aware of the current guidelines for stroke, as well as local pathways, services and support for stroke and TIA.



## How to use the Stroke-Specific Education Framework

Target group	How to use
Clinical educators, trainers	As part of orientation/induction processes for staff or students new to stroke. Using the SSEF when designing courses will offer quality assurance and increase training opportunities for education providers. If a course is planned, or has already been developed, that includes information about stroke and TIA. The SSEF will demonstrate the knowledge and skills that should be included in the curriculum. The course designer will be able to decide on the level of knowledge and understanding appropriate for their target audience.
Health professionals	<ul style="list-style-type: none"> <li>• To demonstrate that staff are provided with appropriate training. Elements of their service (e.g. the Stroke Unit) could then become quality assured. This is applicable to private and public service providers.</li> <li>• To determine the appropriateness of a training course to meet their needs.</li> <li>• To demonstrate that clinicians have the appropriate competences for their level or to meet qualifications in job advertisements – and if they further their level of knowledge and understanding they will be able to use the SSEF to develop their careers.</li> </ul>
Professional colleges	To promote quality training opportunities via specific clinical standards or to endorse training courses related to the SSEF.
Universities, TAFE, course designers	To design courses that offer quality assurance and increase training opportunities for education providers. If a course is planned, or has already been developed, that includes information about stroke and TIA then the SSEF will demonstrate the knowledge and skills that should be included in the curriculum. The course designer will be able to decide on the level of knowledge and understanding appropriate for their target audience.
Health, social, voluntary and independent sector organisations	To ensure that courses provided to voluntary and paid staff offer best training at an appropriate level for the service they are providing.
Independent providers of enhanced services	<ul style="list-style-type: none"> <li>• To ensure employees have the right training for the service they provide (quality marker).</li> <li>• To show administrators that contractors provided by third parties have appropriate training.</li> </ul>
Patient organisations and user groups and individuals	To outline standards that health professionals are expected to have and enable consumers to make informed decisions about services.

# Format of the Stroke-Specific Education Framework

The SSEF is presented in 14 elements of the Stroke Pathway. Each element has three sections:

- Process of care
- Knowledge and understanding, Skills and ability.

Often sections overlap given the similar services, knowledge and skills required during different phases of care.

## 1. Process of care

This is a list of the services and inputs that are relevant to the level of care for each element within the Stroke Pathway.

Services required along the Stroke Pathway include assessment, preliminary diagnosis/decision, investigation, final diagnosis/decision, treatment/management, referral to other agencies and services, and communication.

## 2. Knowledge and understanding

This is a list of the stroke-specific knowledge and understanding an individual should possess. The level of understanding or knowledge will be dependent on the group being targeted.

Within this section, the level of knowledge and understanding can be defined as:

**Basic** – the criteria demand only a very limited and generalised understanding that something exists but an individual would not need to know any details.

**Factual** – the criteria call for a knowledge that is detailed on a factual level, but does not involve any more than a superficial understanding of any principles or theories.

**Working** – the criteria call for the application of factual knowledge of widely understood technical principles and implications within the field of practice.

**In-depth** – the criteria demand a broad and detailed understanding of the theoretical underpinning of an area of practice, including conflicting theories and constructs.

**Critical** – the criteria call for the ability to evaluate and devise approaches to situations that depend on the critical application of theories and conceptual constructs within the area of practice.

It is the responsibility of the training provider to decide which level is appropriate for each participant. Participants should understand **why** they are doing **what** they are doing at each level.

### 3. Skills and ability

This section is about translating knowledge and understanding into practice, in particular with regard to the availability of the relevant services locally or outside the local area. The focus of the skills should be:

- **What** it is that needs to be done
- **When** it needs doing
- **Where** it is done
- **How** it should be done
- **Who** it is 'done' to.

'It' could be any investigation, intervention or referral.

Additional skills include communication and participation in research and audit.

Communication needs to be at a level, and using a method and format, appropriate for the individual and the situation. It is important for staff to participate in research and audit to improve patient care. This will help them develop additional skills and appreciate how patient care can be informed by research findings and audit studies (i.e. evidence based).

## **Elements of care on the Stroke Pathway**

1. Raising awareness of stroke as a medical emergency
2. Managing risk: primary and secondary prevention
3. Information, advice and support to those affected by stroke
4. TIA assessment and management at time of event and at follow-up
5. Urgent response: pre-hospital assessment and management
6. Assessment (stroke)
7. Early treatment (stroke)
8. High-quality specialist rehabilitation
9. End-of-life care
10. Seamless transfer of care
11. Long-term care and support
12. Review
13. Participation in community life
14. Return to work

## **1. Raising awareness of stroke as a medical emergency**

### **Process of care**

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment
- Preliminary diagnosis/decision
- Investigation
- Treatment/management
- Communication

### **Knowledge and understanding of ...**

- signs and symptoms of stroke
- features of less common (atypical) presentation of stroke
- stroke mimics and likely presentation
- stroke and TIA as medical emergencies
- emergency response, investigations, interventions and treatments for stroke and TIA
- timeframe for emergency investigations, interventions and treatments for stroke and TIA
- national programs for public awareness run by the National Stroke Foundation (NSF) and how to make local programs align with national resources for public advocacy (e.g. NSF and NGOs)

**In addition, take into account the knowledge and understanding relating to element 5. Urgent response.**

### **Skills and ability to ...**

- initiate emergency protocol
- communicate current event and need for emergency treatment
- know when to apply stroke recognition tests (FAST) and how to act on the results
- identify emergency interventions and treatments for stroke and TIA available locally and know how to refer patients efficiently
- to communicate with NSF about national public awareness campaigns

**In addition, take into account the skills and ability required under element 5. Urgent response.**

## 2. Managing Primary & Secondary Risk

### Process of care

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment of risk
- Preliminary diagnosis/decision
- Investigation
- Treatment/management
- Referral to other agencies and services
- Communication (see 3. Information, advice and support)

### Knowledge and understanding of ...

- assessment of CVD risk (via absolute risk approach where appropriate)
- risk factors for stroke and TIA stroke types and their aetiologies
- stroke types and their aetiology
- who provides interventions for primary and secondary prevention of stroke
- pharmacological and non-pharmacological interventions for primary and secondary prevention of stroke, and side effects of treatment
- methods of changing behaviour to modify/manage risk factors and assure ongoing adherence to therapy

**In addition, take into account the knowledge and understanding relating to 3. Information, advice and support, and 4. TIA assessment and management.**

### Skills and ability to ...

- take and interpret thorough history, taking third party information where possible, and assess mental capacity
- identify risk factors and apply vascular risk assessment tools (as outlined in current national clinical guidelines for prevention of CVD)
- determine, plan and initiate appropriate assessments/investigations and interventions/treatments; and provide information, relevant to individual needs (personalise information)
- elicit needs of those at risk of stroke and those already affected by stroke
- communicate: current event; risk of future vascular event; need for assessments/investigations, interventions/ treatments and their timeframes; rationale for treatment; and possible side effects of treatment; and to provide advice
- assess services (health, social, voluntary and independent) available locally for those affected by stroke: identify full range available; establish relevance; communicate and liaise with services; and signpost service
- assess motivation and take steps to augment management
- monitor progress and agree or change a maintenance or management plan
- assess and facilitate adherence to therapy

**In addition, take into account the skills and abilities required under 3. Information, advice and support.**

### **3. Information, advice and support to those affected by Stroke**

#### **Process of care**

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment: personal and family-led assessment
- Preliminary diagnosis/decision
- Investigation
- Treatment/management
  - Person and family-led management (medical and non-medical)
    - Identifying priorities
    - Understanding how to change behaviour
  - Secondary prevention including concordance (e.g. ensure that the stroke survivor takes medication, attends therapy sessions)
- Communication including advice on stroke and stroke recovery, lifestyle, work and driving advice
- Referral and re-referral (smooth and seamless pathway of care across and between) community/primary care and hospital/specialist care.
- Respite
- Equipment & adaptations
- Engagement & advocacy
- Monitoring, evaluation and feedback

#### **Knowledge and understanding of ...**

- stroke types and their aetiologies
- risk factors for further vascular events (e.g. type and aetiology of current event, lifestyle, socioeconomic, cultural, vascular, familial, genetic, concurrent medications, co morbidities)
- pharmacological and non-pharmacological interventions for primary and secondary prevention of stroke
- who provides interventions for primary and secondary prevention of stroke
- stroke recovery pathways and consumer expectations
- the services relevant for people following stroke and their carers
- assessment and management of problems: psychological and emotional, social and relationship, cognitive and communication, physical and functional,; sensory impairment and pain, and medical
- the impact of stroke on the stroke survivor, carer and family
- the implications of stroke for lifestyle, driving, work and family
- methods of changing behaviour
- how service planning and decision making processes work and how they can be influenced to be more consumer focused
- methods that can be used to involve stroke survivors and carers in service planning including feeding back how their contributions have influenced services
- methods to empower people with stroke; advocacy

**In addition, take into account the knowledge and understanding relating to 2. Managing risk and 8. Specialist rehabilitation.**

### **Skills and ability to ...**

- take and interpret thorough history, taking third-party information where possible, and assess mental capacity
- determine, plan and initiate appropriate assessments/investigations and interventions/treatments, and provide information relevant to individual needs (personalise information)
- elicit needs of those at risk of stroke and those affected by stroke
- communicate and discuss: current event; risk of future vascular event; need for assessments/investigations, interventions/treatments and their timeframes; rationale for treatment, and possible side effects of treatment; and to provide timely information, advice and support
- identify full range of services (health, social, community, voluntary and independent) available locally for those affected by stroke
- assess relevance and suitability of available services for those affected by stroke, communicate and liaise with services, share information, work across agencies, signpost services for those affected by stroke
- implement information sharing methods and reflect on effectiveness of information sharing
- assess motivation and take steps to augment management
- monitor progress and agree or change a maintenance or management plan in conjunction with those affected by stroke, identifying resources to facilitate participation and inclusion
- create an open and honest environment that is not intimidating and offers stroke survivors and their carers the opportunity to freely give their views
- interact with people who have one or more of the following problems: communication,; physical/functional, psychological, social or medical
- translate the views of those affected by stroke into service planning, development, delivery and monitoring
- identify local opportunities and appropriate formats for formal and informal feedback
- identify hard-to-reach groups and ensure that their views are included
- overcome the factors that prevent those affected by stroke from contributing to the consultation process
- handle complaints to the satisfaction of all parties

**In addition, take into account the skills and abilities required under 2. Managing risk and 8. Specialist rehabilitation.**



## **4. TIA assessment and management at time of event and at follow-up**

### **Process of care**

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment
- Preliminary and final diagnosis/decision
- Investigations including biochemistry and haematology, imaging, cardiovascular assessment
- Treatment/management
  - Initiate treatment
  - Secondary prevention – early and immediate
  - Vascular surgery
- Referral to other agencies and services
- Communication
  - Lifestyle, work and driving advice
  - TIAs with ongoing problems, TIA mimics and strokes
  - TIA/minor stroke advice

### **Knowledge and understanding of ...**

- anatomy and physiology of the central nervous system, cerebrovascular and cardiac systems
- risk factors for stroke and TIA (e.g. lifestyle, socioeconomic, cultural, vascular, familial, genetic, concurrent medications, comorbidities)
- the signs and symptoms of TIA
- how to distinguish between stroke and TIA
- the future risk of stroke and TIA (e.g. ABCD2 and other important risk considerations [AF, crescendo TIA, carotid disease])
- the features of typical and atypical presentation of TIA/stroke and mimics and how to act when they are identified
- the timeframe, interpretation and initiation of emergency and follow-on investigations, interventions and treatments for TIA (e.g. imaging, vascular, medical, cardiac, surgical)
- local protocols for imaging and reporting
- the implications of TIA for lifestyle, driving, work and family
- risk factors for further vascular events (e.g. type and aetiology of current event, lifestyle, socioeconomic, cultural, vascular, familial, genetic, concurrent medications, comorbidities)
- side effects of pharmacological and non-pharmacological interventions as well as the prevention and management of vascular events
- methods of changing behaviour
- concordance: how to assess, how it is affected by individual preference, how to manage treatment drop-outs
- why TIA/stroke review is important

**In addition, take into account the knowledge and understanding relating to 2. Managing risk.**

### **Skills and ability to ...**

- take and interpret thorough history, record third party information where possible, and assess mental capacity
- determine, plan and initiate appropriate assessments/investigations and interventions/treatments within the relevant timelines; and provide information, relevant to individual needs (personalise information)
- identify risk factors and apply vascular risk assessment tools for TIA (ABCD2) and screening tests for stroke (e.g. ROSIER)
- identify stroke, high risk TIA, lower risk TIA, atypical stroke and stroke mimics
- establish the cause of TIA
- identify local management and referral routes for TIA/stroke and mimics and refer for relevant immediate and ongoing risk factor management
- perform a physiological assessment and assess vital signs
- apply radiological knowledge for recognised investigations
- apply technical knowledge for recognised investigations and interventions
- apply surgical knowledge for recognised vascular interventions
- recognise and manage postoperative complications after stenting, endarterectomy, PFO and ASD closure
- recognise recurrent vascular events
- communicate and discuss: current event; risk of future vascular event and actions to be taken; need for assessments/investigations, interventions/treatments and their urgency/timeframes; rationale for treatment, and possible side effects of treatment; development of agreed management plan; and provide timely information, advice and support
- advise on lifestyle, driving, work and family
- assess and facilitate concordance including motivation and take steps to augment management
- monitor progress and agree or change a maintenance or management plan

**In addition, take into account the skills and abilities required under 6. Assessment (stroke), 7. Treatment (stroke), 8. Specialist rehabilitation, 10. Seamless transfer of care, 11. Long-term care and support, 12. Review and 13. Participation in community.**

## ***5. Urgent response: pre-hospital assessment and management***

### **Process of care**

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment
  - Recognise suspected stroke
- Preliminary diagnosis/decision
  - Make preliminary diagnosis
  - Clinical assessment
  - Confirm preliminary diagnosis
- Treatment/management
  - Initiate monitoring
  - Complications after stroke
  - Take to correct place
- Communication

### **Knowledge and understanding of ...**

- signs and symptoms of stroke
- common or locally used tools (eg. MASS, FAST)
- features of less common (atypical) presentation of stroke
- stroke mimics and likely presentation
- stroke and TIA as medical emergencies
- emergency response, investigations, interventions and treatments for stroke and TIA
- the timeframe for emergency investigations, interventions and treatments for stroke and TIA
- the anatomy and physiology of the central nervous system
- the physiological and neurological effects of stroke and their timeframe during and after a stroke
- monitoring and acting upon physiological and neurological changes during and after a stroke
- how stroke can affect communication and cognition
- complications after stroke (e.g. aspiration, airway obstruction, hypoxia, hypotension, hypertension, hyperglycaemia, bedsores), and preventing and managing them
- local or regional agreements to transfer people with suspected stroke directly to dedicated stroke unit hospital (and where such units exist)

**In addition, take into account the knowledge and understanding relating to 1. Raising awareness, 4. TIA assessment and management, and 6. Assessment (stroke).**

### **Skills and ability to ...**

- take and interpret thorough history, record third-party information where possible, and assess mental capacity
- communicate and discuss: current event; risk of future vascular event; need for assessments/investigations, interventions/treatments and their timeframes; rationale for treatment, and possible side effects of treatment; and provide timely information, advice and support
- identify suspected stroke, perform screening tests and act on results
- perform basic neurological and physiological assessment (vital signs)
- perform ABCDs (airways, breathing, circulation, disability), pulse oximetry and blood glucose assessment and to act on abnormal findings
- identify and use therapeutic methods of moving and handling the patient that are safe, depending on the individual or staff needs
- recognise stroke-related communication problems and to adapt methods of communication
- identify emergency investigations, interventions for stroke (e.g. stroke units, thrombolysis) and TIA patients available locally (stroke networks) and know where to take them
- identify and appropriately treat stroke mimics, e.g. hypoglycaemia, epileptic seizure
- adhere to regional agreements to preferentially transfer suspected persons with stroke to stroke unit hospital

## 6. Assessment (stroke)

### Process of care

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment
- Preliminary diagnosis/decision
  - Identification of suspected strokes
  - Make a clinical diagnosis
- Investigation
  - Biochemistry and haematology
  - Brain imaging
  - Cardiac assessment
- Treatment/management
  - Initiate treatment
  - Prevent and detect deteriorations
  - Access to rapid neurovascular/vascular surgery
  - Intensive care
  - Young/atypical stroke
  - Specialist assessment of stroke with unusual presentations and/or in young people
  - Highly specialised treatments
  - Access to telemedicine
- Communication

### Knowledge and understanding of ...

- the signs and symptoms of stroke
- the neurological and physiological effects of stroke and the timeframe of changes during and after a stroke
- how to monitor, and act upon, neurological and physiological changes during and after a stroke
- features of atypical presentation of stroke and stroke mimics
- stroke types and their aetiologies
- different modalities to facilitate diagnosis and treatment of stroke (e.g. telemedicine)
- emergency investigations (e.g. imaging of brain, heart and cerebral arteries, blood tests)
- interventions for acute stroke (e.g. thrombolysis, vascular surgery, stenting, hemicraniotomy, evacuation of haematoma) and the time frame within which they should be given
- the indications and contraindications for investigations, interventions and treatments for stroke
- any potential complications of investigations, interventions and treatments for stroke and how to prevent and manage them
- the availability of telemedicine
- need to communicate with person with stroke and family/carer regarding need for and results of investigations, and treatments

**In addition, take into account the knowledge and understanding relating to 4. TIA assessment and management, 5. Urgent response and 7. Early treatment (stroke).**

### **Skills and ability to ...**

- take and interpret thorough history, record third-party information where possible, and assess mental capacity
- determine, plan and initiate appropriate assessments/investigations and interventions/treatments
- perform neurological (e.g. NIHSS or Scandinavian Stroke Scale) and physiological assessment and assess vital signs
- perform a clinical assessment via telemedicine when appropriate
- interpret the results of investigations (e.g. imaging, vascular, blood tests) and the actions to be taken as a result
- diagnose stroke using clinical information and investigations: distinguish between a stroke and a TIA, identify atypical strokes and stroke mimics, and formulate and implement a management plan accordingly
- communicate and discuss: current event; risk of future vascular event; need for assessments/investigations, interventions/treatments and their time frames; rationale for treatment, and possible side effects of treatment; and provide timely information, advice and support
- identify the need for more specialist or differing treatments when necessary and be able to refer to those services
- monitor progress, identify complications or deteriorations, and deliver treatments for complications or deteriorations
- identify the level of urgency for any relevant medical, surgical and radiological investigations, interventions and treatments
- obtain and interpret the results of investigations and formulate an immediate and ongoing management plan; initiate treatments within the relevant time scales

**In addition, take into account the skills and abilities required under 4. TIA assessment and management, and 5. Urgent response.**

## **7. Early treatment (stroke)**

### **Process of care**

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- A comprehensive stroke care system (pre-hospital, acute team, stroke unit, imaging, neurosurgical and endovascular intervention)
- Assessment
- Final diagnosis/decision
- Investigation
- Treatment/management
  - Preventing complications
  - Provide rehabilitation with appropriate
    - frequency
    - intensity
    - duration
  - Discharge planning
  - Communicating effectively with stroke survivor/family/team

- Referral to other agencies and services
  - Stroke survivors with other specialist support and management needs
  - Home

**In addition, take into account the service required under 10. Seamless transfer of care.**

**Knowledge and understanding of ...**

- the components of a comprehensive system of care
- signs and symptoms of stroke
- neurological and physiological effects of stroke, monitoring, and the time frame of changes, during and after a stroke
- reperfusion therapies
- the need for early mobilisation and positioning
- assessing swallowing and managing of dysphagia
- alternative methods of feeding, hydration and drug administration for stroke survivors with dysphagia
- the interactions between enteral feeds, fluids and drug treatment
- the effects of stopping ongoing drug treatment because of swallowing problems
- symptoms and effects of malnourishment
- the importance and methods of oral care
- the importance of avoiding catheters, as well as managing retention and promoting continence
- assessing and managing problems: psychological and emotional, social and relationship, cognitive and communication, physical and functional, sensory impairment and pain, and medical □□
- cognitive effects of the stroke and its impact on the stroke survivor's ability to consent to treatment
- the impact of the stroke on family, friends and carers
- assessment and management options for neurological, physiological, functional and psychological problems after stroke
- complications after stroke and how to prevent and manage them
- when to refer for other specialist care (e.g. intensive care unit, hemicraniotomy, haematoma evacuation, interventional radiology, vascular surgery etc)
- any complications of investigations, interventions and treatments for stroke and how to prevent and manage them
- the roles, level and number of health and social service professionals who should contribute to the care and support of individuals with stroke and those affected by stroke
- how to manage strokes that occur as a complication of another primary pathology

**In addition, take into account the knowledge and understanding relating to 5. Urgent response, 6. Assessment (stroke) and 8. Specialist rehabilitation.**

### **Skills and ability to ...**

- identify the need and level of urgency for the relevant medical, surgical and radiological investigations, interventions and treatments; obtain and interpret the results of investigations: formulate an immediate and ongoing management plan; and initiate treatments within the relevant time scales
- take and interpret thorough history, record third-party information where possible, and assess mental capacity
- perform neurological (e.g. NIHSS, SSS) and physiological assessment and assess vital signs
- diagnose stroke using clinical information and investigations: distinguish between a stroke and a TIA, identify atypical strokes and stroke mimics, and to formulate and implement a management plan accordingly
- deploy acute reperfusion therapies where appropriate
- communicate and discuss: current event; risk of future vascular event; need for assessments/investigations, interventions/treatments and their time frames; rationale for treatment, and possible side effects of treatment; and provide timely information, advice and support
- identify the need for more specialist or differing treatments when necessary and be able to refer to those services
- monitor progress, identify neurological and non-neurological complications or deterioration and to deliver treatments
- identify and use therapeutic methods of moving and handling the stroke survivor that are safe, depending on the individual or staff needs
- assess and manage: oral problems including dysphagia and nutrition, cognition, psychological and emotional problems, continence, pressure areas, mobility problems etc. in collaboration with members of the multidisciplinary team
- deliver relevant methods of nutrition, hydration and medication in stroke survivors with dysphagia
- Assess and discuss realistic goals with those affected by stroke, plan discharge and link to follow-up services for stroke survivors and carers
- recognise impending death and initiate palliative care where necessary

**In addition, take into account the skills and abilities required under 4. TIA assessment and management, 8. Specialist rehabilitation, 9. End-of-life care, 10. Seamless transfer of care, 11. Long-term care and support, 12. Review and 13. Participation in community.**

## 8. High-quality specialist rehabilitation

### Process of care

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment
  - Effective MDT assessment
  - Goal setting
- Preliminary diagnosis/decision
  - Investigation
- Treatment/management
  - Person and family-centred management (medical and rehabilitation)
  - Initiating management
    - Medical check against original
    - Non-medical
  - Using a range of methods
  - Talking to people
  - Identifying priorities
  - Understanding how to change behaviour
  - Immediate access to stroke specialist rehabilitation
- Referral to other agencies and services
- Communication

### Knowledge and understanding of ...

- the impact of stroke on the individual, carer and family
- the implications of stroke for lifestyle, driving, work and family
- MDT assessment: the principles of stroke rehabilitation and rehabilitation referral, principle of goal setting and the use of assessments and measures, and therapy techniques and their application
- **sensorimotor impairments** after stroke (e.g. dysphagia, weakness, loss of sensation, visual field loss)
- **physical activity** problems after stroke (e.g. sitting, standing up, balance, walking, using upper limb, ADL)
- **communication** problems after stroke (e.g. aphasia, dysarthria, articulatory dyspraxia, cognitive communication deficits)
- **cognitive** problems after stroke (e.g. spatial awareness (neglect/inattention), memory, attention, praxis, executive function)
- **complications** of primary impairments (e.g. feeding and nutrition, shoulder pain, subluxation, spasticity, contracture, swelling, incontinence, fitness, falls, pressure care, fatigue, sleep apnoea)
- **medical** problems (e.g. medications, comorbidities, complications such as DVT, central post stroke pain, seizures, infections)
- **mood and behavioural** problems after stroke (e.g. depression, emotionalism, anxiety, self esteem, challenging behaviour)
- **social and relationship** problems after stroke (e.g. work, driving, transport, leisure, sexuality, support, respite, counselling, family meetings)
- the process of transfer to the community (e.g. discharge planning, long-term management, further rehabilitation, social function)



- the causes of, and how to assess, manage and treat, problems after stroke (at impairment, activity and participation level): emotional; social and relationship; cognitive; communication; physiological, physical and functional; neurological, sensory impairment and pain; and medical
- methods that will support stroke survivors with their recovery and help them to cope with problems after stroke
- risk factors for further vascular events (e.g. type and aetiology of current event, lifestyle, socioeconomic, cultural, vascular, familial, genetic, concurrent medications, co morbidities)
- pharmacological and non-pharmacological interventions for secondary prevention
- any support services, organisations and resources available (e.g. health, social, voluntary, independent sector; packages of care, finance, respite care, equipment, adaptations, rehabilitation, psychological, educational, employment, housing)
- methods to facilitate communication with those affected by stroke
- therapeutic moving and handling
- methods of changing behaviour
- assistive technology and other therapy interventions
- equipment and adaptations
- concordance: how to assess, how it is affected by individual preference, how to motivate, how to manage non-concordance

**In addition, take into account the knowledge and understanding relating to 2. Managing risk, 3. Information, advice and support, 4. TIA assessment and management, 7. Early treatment (stroke), 10. Seamless transfer of care and 11. Long-term care and support.**

#### **Skills and ability to ...**

- take and interpret thorough history, including information from carers, relatives and other agencies where possible, and assess mental capacity
- determine, plan and initiate appropriate assessments/investigations and interventions/treatments including goals and outcomes
- communicate and discuss: current event; risk of future vascular event; need for assessments/investigations, interventions/treatments and their timeframes; goals of treatment, rationale for treatment and outcomes expected; possible side effects of treatment; and provide timely information, advice and support
- identify rehabilitation and support services in hospital and after discharge: inform the stroke survivor about services and how to access them, check availability and agree referral
- identify need and when to refer for more specialist or differing treatments where necessary: also agree referral (e.g. assistive technology, major adaptations to the home, disability employment adviser)
- provide advice and support on driving and refer to specialist centres as required
- identify local services and resources (e.g. health, social, voluntary, independent sector; equipment and adaptations, rehabilitation, psychological, educational, employment, housing) to facilitate participation and inclusion: also identify waiting times and implications for those affected by stroke

- monitor progress and agree or change a maintenance or management plan
- identify resources to help with participation and inclusion
- assess motivation and take steps to augment management
- assess and help with concordance
- identify and use therapeutic methods of moving and handling the stroke survivor that are safe, depending on the individual, carer/family or staff needs, and that will help with the optimum return of functional abilities
- assist, encourage and facilitate post-stroke physical, social and cultural reintegration
- recognise the signs, symptoms and impact of problems after stroke (e.g. sensorimotor impairments, physical activity, communication, cognitive, complications, medical, mood and behaviour, social and relationship) and to help stroke survivors and their families to cope and manage, and encourage recovery
- use a range of communication resources and approaches to ensure that stroke survivors and their carers are fully involved in the decision-making process and their care
- provide a person-centred approach to care

**In addition, take into account the skills and abilities required under 11. Long-term care and support and 12. Review.**

## ***9. End-of-life care***

### **Process of care**

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment
- Preliminary diagnosis/decision
- Investigation
- Treatment/management
  - All care settings
  - Deliver, wherever possible, choice of where people choose to spend their final weeks
    - Home
    - Hospital
    - Institution
- Referral to other agencies and services
- Communication

### **Knowledge and understanding of ...**

- principles of palliative care
- end-of-life care strategies, advanced directives and palliative care tools in relation to stroke
- state and federal legislation relating to the mental capacity of stroke survivors
- guidelines and process for organ donation process and guidelines of organ donation
- advocates for stroke survivors when there is a legal duty to instruct on end-of-life issues
- the needs of those affected by stroke (i.e. stroke survivor, carer and family)
- the assessment and management of problems, how they can be controlled and the implications for prognosis: psychological and emotional; social and relationship; cognitive and communication; physiological, physical and functional; neurological, sensory impairment and pain; and medical
- pharmacological and non-pharmacological interventions for end-of-life care after stroke
- the side effects of pharmacological and non-pharmacological interventions for end-of-life care after stroke
- local palliative care services

### **Skills and ability to ...**

- determine, plan and initiate appropriate assessments/investigations and interventions/treatments
- apply palliative care principles
- take and interpret thorough history, including information from carers, relatives and other agencies where possible, and assess mental capacity
- communicate and discuss: current event, interventions/treatments and their time frames, rationale for treatment, possible side effects of treatment, and provide advice and prognosis
- assess capacity and 'best interests' according to the statutory principles
- provide sufficient information to enable informed choice and decision making by those affected by stroke
- identify need and when to refer for more specialist (e.g. palliative care team) or differing treatments where necessary
- recognise and manage symptoms taking account of individual needs
- use relevant tools or palliative care pathways
- identify local services and resources, including waiting times and implications for those affected by stroke
- use strategies to help with breaking bad news, managing emotions and obtaining information on advanced directives
- develop mechanisms to support the stroke or palliative care team and provide opportunities for debriefing sessions

## 10. Seamless transfer of care

### Process of care

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment
  - Preliminary diagnosis/decision
  - Investigation
- Treatment/management
  - Person and family-centred assessment and management plan
- Referral to other agencies and services (smooth and seamless of care across and between)
- Communication

### Knowledge and understanding of...

- the assessment and management of problems: sensorimotor impairments, physical activity, communication, cognitive, complications, medical, mood and behaviour, social and relationship; and how to involve users and carers
- the implications of stroke for lifestyle, driving, work and family
- methods to facilitate communication with those affected by stroke
- support services, organisations and resources available (e.g. health, social, voluntary, independent sector; packages of care, finance and personal budgets, self-management, respite care, equipment, adaptations, rehabilitation, psychological, educational, employment, housing, transport) including exit strategies
- the principles of good planning for transition between services or cessation of services and for transfer of care to the community, including the education of those affected by stroke
- all agencies that are potentially involved along the whole of the Stroke Pathway
- the principles of multi-agency working

**In addition, take into account the knowledge and understanding relating to 3. Information advice and support, and 8. Specialist rehabilitation.**

### Skills and ability to ...

- determine, plan and initiate appropriate assessments and treatments
- take and interpret thorough history, including information from carers, relatives and other agencies where possible, and assess mental capacity
- assess, discuss and review with those affected by stroke: goal-setting and outcomes
- monitor progress and agree or change a maintenance or management plan
- identify need and when to refer for more specialist or differing treatments when necessary
- identify local services and resources (e.g. health, social, voluntary, independent sector; equipment and adaptations, rehabilitation, psychological, educational, employment, housing) to facilitate participation and inclusion: check availability and waiting times; inform stroke survivor about services, identify how to access, or re-access, them and agree referral

- liaise with and work across agencies
- strong interprofessional practice skills to link all information, services and agencies
- reflect on processes and pathways of care including mechanisms for review and exit strategies
- reflect on methods and effectiveness of information sharing

**In addition, take into account the skills and abilities required under 3. Information, advice and support.**

## ***11. Long-term care and support***

### **Process of care**

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment
  - Person and family-centred assessment and management
- Preliminary diagnosis/decision
- Investigation
- Treatment/management
  - Secondary prevention
    - Health
    - Social care
    - Respite
    - Equipment
  - Adaptations
  - Secondary prevention
    - Lifestyle
    - Concordance (ensure that the stroke survivor takes medication)
- Referral and re-referral to other agencies and services
- Communication

### **Knowledge and understanding of ...**

- the assessment and management of problems: sensorimotor impairments, physical activity, communication, cognitive, complications, medical, mood and behaviour, social and relationship
- the needs of those affected by stroke, particularly those related to the problems listed above, and how these needs can be met
- the impact of stroke on the individual, carer and family
- the implications of stroke for lifestyle, driving, work and family
- risk factors for further vascular events (e.g. type and aetiology of current event, lifestyle, socioeconomic, cultural, vascular, familial, genetic, concurrent medications, comorbidities)
- pharmacological and non-pharmacological interventions for secondary prevention and to facilitate recovery after stroke and their side effects

- support services, organisations and resources available (e.g. health, social, voluntary, independent sector; packages of care, finance, respite care, equipment, adaptations, rehabilitation, psychological, educational, employment, housing)
- assistive technology and other therapy interventions
- methods to facilitate communication with those affected by stroke
- concordance: how to assess, how it is affected by individual preference, how to motivate, how to manage non-concordance
- the principles of chronic condition self management, self-efficacy, community integration, influence of environmental barriers and facilitators to integration

**In addition, take into account the knowledge and understanding relating to 2. Managing risk, 4. TIA assessment and management, and 8. Specialist rehabilitation.**

#### **Skills and ability to ...**

- take and interpret thorough history, including information from carers, relatives and other agencies where possible, and assess mental capacity
- communicate and discuss: current event; risk of future vascular event; need for assessments/investigations, interventions/treatments and their time frames; rationale for treatment; possible side effects of treatment; and provide timely information, advice and support
- monitor the individual's progress and agree on or change a maintenance or management plan
- assess, discuss and review with those affected by stroke: goal-setting and outcomes
- identify need and when to refer for more specialist or differing treatments when necessary
- identify relevant rehabilitation and social support services after discharge: inform the individual about services and how to access them and agree referral
- identify the individual's motivation and take steps to modify behaviour
- know of local services, their waiting times and implications for those affected by stroke and ensure that the individual is aware
- understand how those affected by stroke can be empowered (e.g. through self-management programs)
- assess and facilitate concordance

## 12. Review

### Process of care

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment
  - Specialist review
  - Information
  - Support
  - Rehabilitation
- Preliminary diagnosis/decision
- Investigation
- Treatment/Management
  - Within 3 months review (post-discharge) and
  - 6 month and
  - 12 month
  - ongoing annual review
- Communication

### Knowledge and understanding of ...

- the assessment and management of problems: sensorimotor impairments, physical activity, communication, cognitive, complications, medical, mood and behaviour, social and relationship
- the needs of those affected by stroke, particularly those related to the problems listed above, and how these needs can be met and how they may change over time
- support services, organisations and resources available (e.g. health, social, voluntary, independent sector; packages of care, finance, respite care, equipment, adaptations, rehabilitation, psychological, educational, employment, housing)
- the impact of stroke on the individual, carer and family and how needs may change over time
- the implications of stroke for lifestyle, driving, work and family
- risk factors for further vascular events (e.g. type and aetiology of current event, lifestyle, socioeconomic, cultural, vascular, familial, genetic, concurrent medications, comorbidities)
- pharmacological and non-pharmacological interventions for secondary prevention and how to help recovery after stroke
- side effects of risk factor interventions and treatments to help with recovery after stroke
- methods to help communication with those affected by stroke when conducting a review
- concordance: how to assess, how it is affected by individual preference, how to motivate, how to manage non-concordance
- the principles of chronic condition self management, self-efficacy, community integration, influence of environmental barriers and facilitators to integration

**In addition, take into account the knowledge and understanding relating to 2. Managing risk, 4. TIA assessment and management, and 8. Specialist rehabilitation.**

### **Skills and ability to ...**

- take and interpret thorough history, including information from carers, relatives and other agencies where possible, and assess mental capacity
- communicate and discuss: current event; risk of future vascular event; need for assessments/investigations, interventions/treatments and their time frames; rationale for treatment; possible side effects of treatment; and provide timely information, advice and support
- monitor the individual's progress and agree or change a maintenance or management plan
- assess, discuss and review with those affected by stroke: goal-setting and outcomes
- plan assessments and treatments, and provide information relevant to individual needs (personalise information)
- identify need and when to refer for more specialist or differing interventions/treatments when necessary
- review process in your area and act on the review
- assess and facilitate concordance

**In addition, take into account the skills and abilities required under 8. Specialist rehabilitation.**

## ***13. Participation in community life***

### **Process of care**

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment
  - Person and family-centred assessment and management
  - Specialist review
  - Information
  - Support
  - Rehabilitation
- Preliminary diagnosis/decision
- Investigation
- Treatment/management
  - Provision of
    - Equipment
    - Adaptations
- Communication



### **Knowledge and understanding of ...**

- the assessment and management of problems: sensorimotor impairments, physical activity, communication, cognitive, complications, medical, mood and behaviour, social and relationship
- the needs of those affected by stroke, particularly those related to the problems listed above, and how these needs can be met
- support services, organisations and resources available (e.g. health, social, voluntary, independent sector; packages of care, finance, respite care, equipment, adaptations, rehabilitation, psychological, educational, employment, housing)
- the impact of stroke on the individual, carer and family
- the implications of stroke for lifestyle, driving, work and family
- methods to help communication with those affected by stroke, including when conducting a review □□
- driving assessment facilities
- driving legislation by state
- driving assessments as outlined
- who you would refer to
- access to public transport
- the principles of chronic condition self management, self-efficacy, community integration, influence of environmental barriers and facilitators to integration

**In addition, take into account the knowledge and understanding relating to 8. Specialist rehabilitation.**

### **Skills and ability to ...**

- take and interpret thorough history, including information from carers, relatives and other agencies where possible, and assess mental capacity
- communicate and discuss: current event; risk of future vascular event; need for assessments/investigations, interventions/treatments and their timeframes; rationale for treatment; possible side effects of treatment; and provide timely information, advice and support
- assess, discuss and review with those affected by stroke: goal setting and outcomes
- monitor the individual's progress and agree on or change a maintenance or management plan
- plan assessments and treatments, and provide information relevant to individual needs (personalise information)
- identify need and when to refer for more specialist or differing treatments when necessary
- know of local services, their waiting times and implications for those affected by stroke and ensure that the individual is aware

## 14. Return to work

### Process of care

This is a list of the services and inputs that are relevant for this element within the Stroke Pathway.

- Assessment
  - Identify relevant individuals
  - Person centred
  - Specialist assessment
  - Information
  - Support
  - Rehabilitation
- Preliminary diagnosis/decision
  - Investigations
    - Visual
    - Cognitive
    - Physical
    - Sensory
- Treatment/management
  - Home
  - Hospital
  - Education institution
  - Workplace
  - Community
- Referral to other agencies
  - Access to stroke specialist vocational rehabilitation
  - Worksite/place assessment
  - Job analysis
  - Work hardening
  - Return to work planning
  - Goal setting for work return/retention
  - Risk assessment
  - Benefits advice
  - Work review
  - Provision of
    - Equipment
    - Adaptations
- Communication
  - Return to work education
  - Liaison with employers/educators and other agencies

### **Knowledge and understanding of ...**

- the effects of stroke (cognitive, physical, sensory, visual, emotional, confidence) and how it may affect a return to work and/or education
- assessing the effects of stroke (cognitive, physical, sensory, visual, emotional, confidence)
- employment law, OHS
- the roles of healthcare and other professionals in employment-related services (occupational health, occupational psychologist, disability employment adviser)
- the multi-disciplinary team's (including occupational therapist's) role in vocational rehabilitation
- Centrelink and commonwealth rehabilitation services: services and their effectiveness for stroke
- what is meant by 'reasonable adjustment' in the workplace, how to adapt or instigate adaptation to the work environment and the employer's responsibility
- available helpful technology for overcoming functional and activity limitations in the workplace
- ergonomic principles and how to overcome access issues
- return to work education
- health, work and well-being – the role of purposeful occupation and the detrimental effects of worklessness
- the benefits system in relation to work
- workplace assessment including risk, job analysis, work hardening, return to work planning and job retention
- models of vocational rehabilitation for stroke and vocational case management
- vocational rehabilitation guidelines and standards for people with stroke
- relevant services and requirements: state, federal and commonwealth

### **Skills and ability to ...**

- refer to a vocational rehabilitation service
- assess or refer for the assessment of visual, cognitive, functional and physical deficits following stroke
- identify local and national services for return to work, their availability and how they can be accessed
- know which professionals people should be referred to for employment-related services
- assess for, advise on and review the need for workplace adaptation
- assess for, advise on and review the need for assistive technology and environmental adaptations to overcome work-related activity limitations
- with a stroke survivor, advise, prepare and plan a return to work or education and how they can be supported on the return to work
- advise employers/educators about stroke and its effects and negotiate a return to work of the stroke survivor
- communicate stroke-related deficits to employers, colleagues, educators, family members and friends

- give benefits advice or refer
- carry out a workplace assessment and risk assessment, or refer
- carry out job analysis, or refer
- set goals for work return/retention
- case manage and refer to a case management service for a return to work after stroke
- help the stroke survivor to remain in work, review the stroke survivor at work/in education and advise on workplace accommodations

## Glossary and acronyms

**Haemorrhage** – a stroke caused by a bursting of blood vessels producing bleeding into the brain, which causes damage.

**Independent sector** – private organisations providing care and treatment.

**Ischaemic** – the most common form of stroke (85%), caused by a clot narrowing or blocking blood vessels so that blood flow is reduced to some areas of the brain, which leads to the death of brain cells due to lack of oxygen.

**Professional** – is used to reflect professionalism rather than to indicate certification or licensing. Therefore, the term professional relates to a person respecting others and considering confidentiality, dignity and culture.

**Transient Ischaemic Attack (TIA)** – sometimes also known as a minor stroke, in which symptoms of a stroke subside within 24 hours.

**Voluntary sector** – charities and the wider not-for-profit organisations.

**Workforce** – is any group of people who may provide service or input for stroke survivors, and so includes health, social services and voluntary organisations.

### Acronyms

**ABCD2** Age, Blood pressure, Clinical features, Duration, Diabetes; a risk stratification tool for TIA

**ADL** Activities of Daily Living

**ASD** Atrial Septal Defect

**FAST** Face, Arm, Speech, Time

**FES** Functional Electrical Stimulation

**IMCA** Independent Mental Capacity Advocate

**MDT** Multidisciplinary Team

**NIHSS** National Institutes of Health Stroke Scale

**PFO** Patent Foramen Ovale

**PPI** Patient and Public Involvement

**QOF** Quality and Outcomes Framework

**SSS** Scandinavian Stroke Scale