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STROKE-SPECIFIC Education Framework

Introduction

High-quality care and services for people with stroke need to be delivered by staff with appropriate knowledge and skills. Currently there is no co-ordinated strategic approach to workforce development through education and training.

A new strategy and education framework

At the UK Stroke Forum in 2007, it was agreed that a new UK-wide Forum for Stroke Training should be created to support the development of high quality stroke services and provide information on how stroke care should be delivered and by whom. It would consist of a Steering Group supported by four Task Groups. A Stroke-Specific Education Framework (SSEF) would be developed, which would be a fundamental first step in establishing transferable education and learning programmes in stroke.

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Why we need a Stroke-Specific Education Framework

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

Stroke care can be divided into 16 elements of care that span the whole Stroke Pathway.

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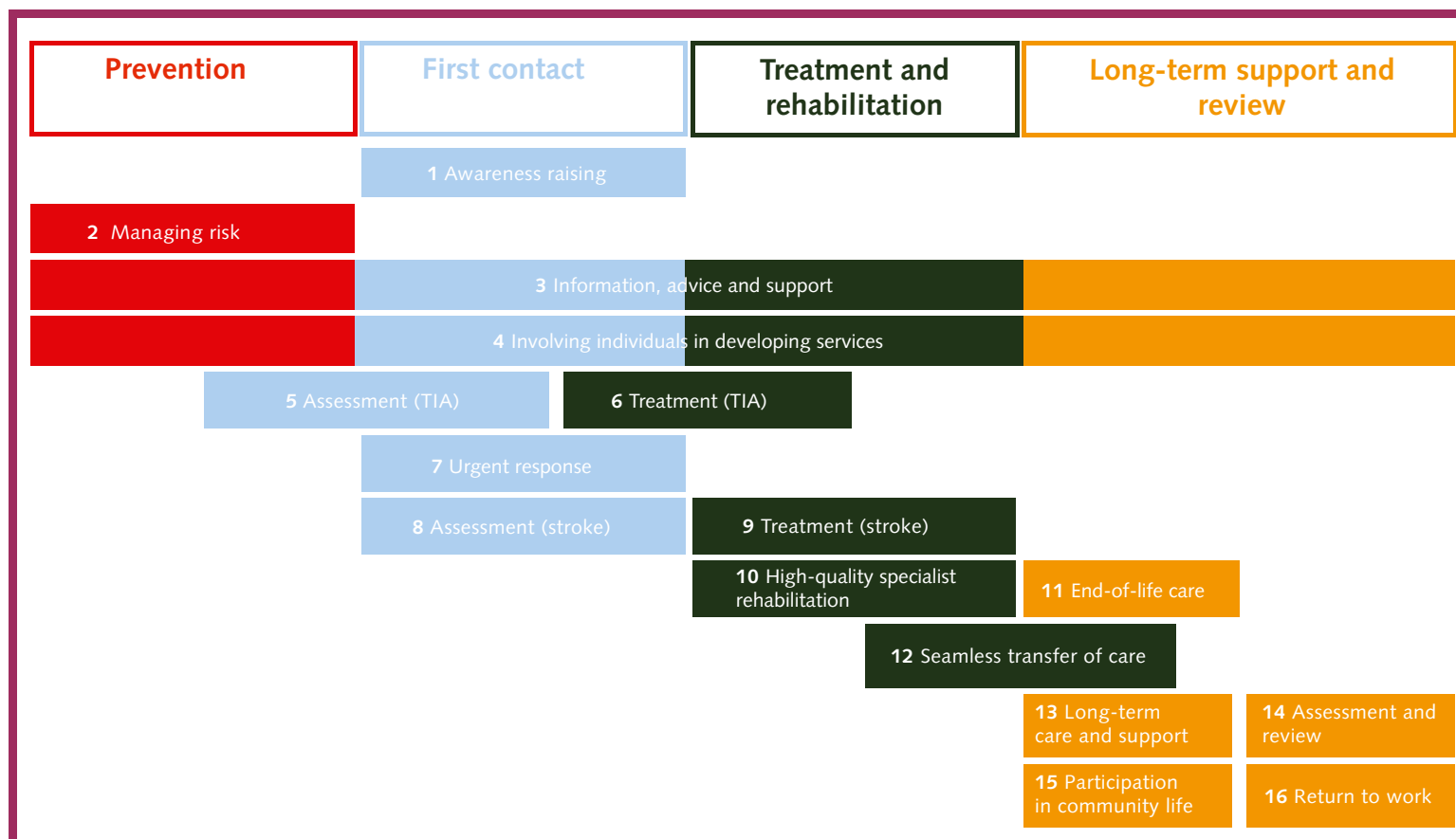
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The Stroke Pathway



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Task Groups and elements of care

There were four Task Groups in the UK Forum for Stroke Training, with an overarching Steering Group. The Task Groups, as well as the Steering Group, had:

- explicit representation from relevant professional bodies (stroke-specific and stroke-relevant); health and social care; and voluntary organisations;
- involvement of people who have had a stroke; and
- representatives from England, Wales, Scotland and Northern Ireland.

Each Task Group developed key aspects of the Stroke-Specific Education Framework (SSEF) around specific elements of care. The elements of care they were responsible for were:

- Awareness and Information (1–4);
- Time is Brain (5–9);
- Life After Stroke (10–16); and
- Implementation (consideration of the future development and embedding of the SSEF in the workforce, including endorsement).

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Implementation Task Group

This Task Group guided the process of Stakeholder Engagement, targeting individuals and organisations likely to use the SSEF. The Implementation Task Group made recommendations about how to:

- avoid duplication by linking the SSEF to existing resources (e.g. National Library for Stroke, UK Stroke Forum), or forthcoming bodies;
- link the SSEF to other frameworks (e.g. for long-term conditions);
- ensure that the SSEF remains up to date, useful, used and continually supported;
- establish a process to update the SSEF in line with changes in treatment and new research evidence;
- include the whole of the Stroke Pathway within the scope of the SSEF; and
- ensure that feedback and audit are in place to evaluate whether the SSEF is making a difference in service quality.

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Who should use the Stroke-Specific Education Framework?

The Stroke-Specific Education Framework (SSEF) will offer UK-recognised, quality-assured, transferable learning programmes in stroke at all levels.

It is 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).

- > [Stroke-specific and stroke-relevant professional bodies](#)
- > [Course designers](#)
- > [Commissioners of services for those affected by stroke](#)
- > [Health, social, voluntary and independent sector organisations](#)
- > [People who are likely to be looking for a suitable course or training in stroke](#)
- > [Independent providers of enhanced services](#)

The SSEF has been designed for people to have easy access to information around each of the elements of care in the stroke pathway. As such, it is envisaged that whoever uses the SSEF will dip into the sections relevant to them. The SSEF has not been designed to be read like a book from cover to cover.

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Groups who may find this Stroke-Specific Education Framework a useful resource

Stroke-specific and stroke-relevant professional bodies

Professional bodies related to the NHS promote recognised training and qualifications and ensure quality. They can endorse training courses that provide knowledge and skills in keeping with the SSEF.

Course designers

Using the SSEF when designing courses will not only offer quality assurance and accreditation, but also 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 type of 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 that is appropriate for their students and target audience.

Commissioners of services for those affected by stroke

In meeting quality standards in NHS contracts, commissioners, e.g. local authorities, primary care trusts (PCTs), third sector organisations and practice-based commissioners, should recognise the need for improving skills in the stroke workforce. Using the SSEF, they can ensure that service providers have staff with appropriate training. A consequence of this is that elements of their service (e.g. the Stroke Unit) could also become quality assured. This could be applied to both private and public providers of services.

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Health, social, voluntary and independent sector organisations

Establishing the SSEF means that both voluntary and paid staff can be given the best training at an appropriate level for the service they are providing. Having proven competences could ensure that their remuneration is commensurate with their knowledge and skill level. For employers, when developing job plans and recruiting, it will be possible to stipulate the qualifications required, based on the SSEF.

People who are likely to be looking for a suitable course or training in stroke

To develop skills for working in stroke it is critical that courses provide appropriate training. The SSEF can be used to determine if the content of a course is comprehensive and meets an individual's training needs. Such courses will be consistent, transferable and recognised across organisations. As such, the SSEF can be used by anyone who works on the Stroke Pathway at any level. Individuals will be able to demonstrate that they 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. Within the SSEF, the knowledge and understanding required at different levels can vary from basic to critical, which means it can be used by both specialists or generalists and support individuals who want to take on advanced roles.

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Independent providers of enhanced services

The SSEF can be used to ensure that employees have the right training for the service they provide. Moreover, it can be used to show commissioners that employees provided by third parties have appropriate training.

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2. Department of Health (2004) *The NHS Knowledge and Skills Framework (NHS KSF) and the Development Review Process*

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Glossary

Concordance – The agreement between a patient and a healthcare professional about the frequency, amount and duration of treatment (e.g. medication, therapy).

Commissioners – primary care trust/health boards that have the responsibility for contracting the right services for their community and providing links with GPs and social services.

Early – the first 72 hours after stroke onset.

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.

Mental capacity – The ability to make a decision for one's self in relation to the matter at hand.

* **Mental Capacity Act** – 'An Act to make new provision relating to persons who lack capacity'.

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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.

Third sector – a collective term of neither public nor private organisations i.e. organisations that are non-governmental, are value-driven and which principally reinvest surpluses in the organisation or the community. This includes all organisations that would define themselves as voluntary and community organisations, charities, social enterprises, mutuals or co-operatives.

Those affected by stroke – can mean the patient, carer, relatives, friends or society.

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

UK Forum for Stroke Training – a UK-wide organisation that supports the National Stroke Strategy and provides information on how stroke care should be delivered and by whom.

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

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

*Where there is reference to the Mental Capacity Act, in Scotland, the *Adults with Incapacity Act* would apply.

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Abbreviations

ABCD2 Age, Blood pressure, Clinical features, Duration, Diabetes

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

NSS National Stroke Strategy

PALS Patient Advice and Liaison Services

PFO Patent Foramen Ovale

PPI Patient and Public Involvement

QOF Quality and Outcomes Framework

SNSS Scandinavian Neurological Stroke Scale

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UK Forum for Stroke Training members

The UK Forum for Stroke Training had members who represented their respective groups, as well as patients and carers. A list of the individuals who contributed to the development of the SSEF can be found in section Project team and contributors.

Allied Health Professions Federation	Stroke – Monitoring Study (SITS-MOST)
Ambulance Service	Scottish Stroke Network
British Association of Stroke Physicians (BASP)	Skills for Health/Skills for Care (SFH/SFC)
British Society of Neuroradiologists (BSNR)/ Royal College of Radiologists (RCR)	Social Services
Chest, Heart and Stroke Scotland	Society and College of Radiographers
Department of Health	Society for Vascular Technology (SVT)
Education for Health	Strategic Health Authorities (SHAs)/Deaneries
National Institute for Health and Clinical Excellence (NICE)	Stroke Association
National Library for Health	Stroke Research Network (SRN)
National Stroke Nursing Forum	Stroke Strategy Implementation Project, Northern Ireland
NHS Direct	RDInfo
NHS Stroke Improvement Programme	Royal College A&E Consultants
Primary Care Neurology Society	Royal College of General Practitioners (RCGP)
Psychologists Researching in Stroke/British Psychological Society (PSYRIS/BPS)	Royal College of Nursing (RCN)
Public Health	Royal College of Speech and Language Therapists (RCSLT)
Safe Implementation of Thrombolysis in	Royal Pharmaceutical Society (RPS)
	Workforce Review Team

The Stroke-Specific Education Framework

At the Stroke Forum in 2007, it was recognised that no framework exists to guide training for people involved in stroke care and services. Establishing the UK Forum for Stroke Training and a Stroke-Specific Education Framework (SSEF) will go a long way towards improving stroke services nationwide.

It is not the Forum's intention to dictate to colleagues involved in stroke care and services how staff should be trained and it understands that there are many locally provided training programmes that are valuable. However, if we as a group of practitioners wish to demonstrate the quality of service that we provide, our training must be consistent and measurable.

We can do this through the SSEF.

We can also offer all our colleagues involved in stroke care acknowledgement for the work they do and meaningful career progression.

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Developing a stroke-skilled workforce

The Stroke-Specific Education Framework (SSEF) is based around the Stroke Pathway and relates to the 16 elements of care. The SSEF plays just one part in the development of a stroke-skilled workforce. Through academic study, an individual can demonstrate that they have the requisite knowledge, understanding, skills and abilities listed in the SSEF. In the workplace, to be truly considered as stroke-skilled, they need to be able to combine the theory they have learnt with their clinical practice.

This marriage of theory and practice should provide progressive learning as evidenced by Continuing Professional Development (CPD). Fundamental to stroke-specific skills and work-based learning are more generic skills and competences; for example, clinical skills, ethics, communication and team-working.

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, can be seen in the following diagram.

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Developing a stroke-skilled workforce

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Developing a stroke-skilled workforce

Generic competences

Generic competences are not stroke-specific but are expected of someone working in health or social care (or the voluntary sector) who provides a service for others. These competences relate to behaviour and skills that are not necessarily formally taught. Generic skills that an individual may have could include leadership, communication and advocacy, or the ability to train, research or manage. We should also be aware of the generic skills required for working effectively independently – or as part of a team.

Stroke-specific competences

The SSEF is guided by the 16 elements of care in the Stroke Pathway and 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.

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Work-based learning

The SSEF will define the knowledge and skills that should be offered to individuals through training, but these need to be translated into practice if workforce development is 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 themselves under supervision;

- 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, all individuals should be allowed to take time to reflect and consider how their practice relates to their factual knowledge and be able to ask for the advice of a supervisor who is aware of

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the learning outcomes of the related training. Training opportunities that include this element of work-based consolidation of learning are much more likely to be viewed as compliant with the SSEF.

Continuing Professional Development

CPD is crucial for maintaining workforce skills and developing new knowledge and new evidence, and for service redesign and progression. Health, social, voluntary and independent care providers who use the SSEF should be aware of current guidelines for stroke – as well as local pathways, services, and support for stroke and Transient Ischaemic Attack (TIA). Professionals should also maintain and update their knowledge of guidelines and be aware of new developments within the local pathway.

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How to use the Stroke-Specific Education Framework

The Stroke-Specific Education Framework (SSEF) is presented in 16 elements of the Stroke Pathway, each with three sections.

Within each element, the three separate sections relate to:

- the [essential requirements](#);
- [knowledge and understanding of](#); and
- [skills and ability to](#).

Within each element of care there are often examples given for potential inputs or problems. Wherever examples are given, the reader must realise that ipso facto, the examples do not purport to be an exhaustive list.

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Essential requirements (first section)

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

Requirements along the Stroke Pathway include: Assessment; Preliminary diagnosis/decision; Investigation; Final diagnosis/decision; Treatment/Management; Referral to other agencies and services; and Communication.

Knowledge and understanding of (second section)

This is a list of the stroke-specific knowledge and understanding that someone working in stroke should possess. The level of understanding or knowledge will be dependent on the group that is being targeted. Within the SSEF, in the column headed 'Knowledge and understanding of', the level required could be prefixed by one of the following (definitions from Skills for Health):

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

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- **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 will be the remit of the people who provide the course to decide on which level is appropriate for each individual trainee, but at each level the trainee should understand **why** they are doing **what** they are doing.

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Skills and ability to (third section)

This section is about translating knowledge and understanding into practice, in particular with regard to the availability of the relevant services that are available locally or that can be accessed outside the local area. The following list summarises the focus of the skills, where “it” could be any investigation, intervention or referral:

- **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.

Additional skills include communication and participation in research and audit.

It is important that staff participate in research and audit. This will help them develop additional skills and give them an appreciation of how patient care can be informed by the findings from research and audit studies (i.e. evidence-based).

The stroke population has very specific and severe communication difficulties. Whenever communication is mentioned within this framework it needs to be at a level and using a method and format appropriate for the individual and the situation. Pre-existing communication difficulties should also be taken into consideration when communicating with stroke patients. Any information provided must be in a format that is relevant and accessible for the person and their family. Considerations include: cultural, language, educational levels, aphasia-friendly, pre-existing deficits. Written information must also be made available.

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6. [Treatment \(TIA\): assessment and management at follow-up](#)
7. [Urgent response: pre-hospital assessment and management](#)
8. [Assessment \(stroke\): emergency assessment and management](#)
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10. [High-quality specialist rehabilitation](#)
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1 Awareness raising: stroke as a medical emergency

Requirements

Knowledge

Skills

Essential requirements

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

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

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1 Awareness raising: stroke as a medical emergency

Requirements

Knowledge

Skills

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
- anatomy and physiology of the central nervous system
- timeframe of physiological and neurological changes during a stroke
- advocates for stroke patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations

In addition, take into account the knowledge and understanding relating to [7. Urgent response](#).

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1 Awareness raising: stroke as a medical emergency

Requirements

Knowledge

Skills

Skills and ability to...

- initiate emergency protocol (Stroke Improvement Programme)
- communicate current event and need for emergency treatment
- know when to apply screening tests for stroke (FAST) and how to act on the results
- know when to apply vascular risk assessment tools for TIA (ABCD2) 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
- take and interpret thorough history, taking third party information where possible, and assess mental capacity
- identify and appropriately treat stroke mimics, e.g. hypoglycaemia, epileptic seizure

In addition, take into account the skills and ability required under [7. Urgent response](#).

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2 Managing risk: primary and secondary prevention

Requirements

Knowledge

Skills

Essential requirements

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

- Assessment
- Preliminary diagnosis/decision
- Investigation
- Treatment/management
- Referral to other agencies and services

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2 Managing risk: primary and secondary prevention

Requirements

Knowledge

Skills

Knowledge and understanding of...

- risk factors for stroke and TIA (e.g. lifestyle, socioeconomic, cultural, vascular, familial, genetic, concurrent medications, comorbidities)
- stroke types and their aetiologies
- risk of stroke depending on type and aetiology
- advocates for stroke patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- 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

In addition, take into account the knowledge and understanding relating to [3. Information](#) and [5. Assessment \(TIA\)](#).

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Project team and contributors

2 Managing risk: primary and secondary prevention

Requirements

Knowledge

Skills

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; provide information, relevant to individual needs and aspirations (personalise information)
- elicit needs and aspirations of those at risk of stroke and those affected by stroke
- identify risk factors and apply vascular risk assessment tools
- 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
- 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; signpost service
- assess motivation and take steps to augment management
- monitor progress and agree or change a maintenance or management plan
- assess and facilitate concordance

In addition, take into account the skills and abilities required under [3. Information](#) and [4. User involvement](#).

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Project team and
contributors

3 Information, advice and support to those affected by stroke

Requirements

Knowledge

Skills

Essential requirements

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

- Assessment
 - Person and family-led assessment
 - Information
- Treatment/management
 - Person and family-led management (medical and non-medical)
 - Identifying priorities
 - Understanding how to change behaviour
 - Secondary prevention
 - Health
 - Lifestyle
 - Concordance (e.g. ensure that the patient takes medication, attends therapy sessions)
 - Social care
 - Respite
 - Equipment
 - Adaptations

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Project team and contributors

3 Information, advice and support to those affected by stroke

Requirements

Knowledge

Skills

- Communication
 - With patient/family/team
 - Advice on stroke, lifestyle, work and driving advice
- Referral and re-referral
 - Other agencies and services (smooth and seamless pathway of care across and between)

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Project team and contributors

3 Information, advice and support to those affected by stroke

Requirements

Knowledge

Skills

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, comorbidities)
- pharmacological and non-pharmacological interventions for primary and secondary prevention of stroke, and side effects of treatment
- advocates for stroke patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- who provides interventions for primary and secondary prevention of stroke
- full range of services (health, social, community, voluntary and independent) available locally for those affected by stroke
- how to assess and overcome barriers to problems: psychological and emotional; social and relationship; cognitive and communication; physical and functional; visual and sensory impairments and pain; medical
- the impact of stroke on the individual, carer and family
- the implications of stroke for lifestyle, driving, work and family
- methods of changing behaviour

In addition, take into account the knowledge and understanding relating to [2. Managing risk](#) and [10. Specialist rehabilitation](#)

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Project team and contributors

3 Information, advice and support to those affected by stroke

Requirements

Knowledge

Skills

Skills and ability to...

- take and interpret thorough history, taking third party information where possible, and assess mental capacity
- elicit needs and aspirations of 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 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

In addition, take into account the skills and abilities required under [2. Managing risk](#) and [10. Specialist rehabilitation](#).

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Project team and contributors

4 User involvement in care and service planning

Requirements

Knowledge

Skills

Essential requirements

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

- Engagement
- Accessibility
- Advocacy
- Monitoring
 - Consultation
 - Evaluation
 - Feedback

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Project team and contributors

4 User involvement in care and service planning

Requirements

Knowledge

Skills

Knowledge and understanding of...

- the services relevant for stroke patients and carers
- how to assess and overcome barriers to problems: psychological and emotional; social and relationship; cognitive and communication; physical and functional; visual and sensory impairments and pain; medical
- methods to empower patients; patient advocacy
- methods that can be used to involve stroke patients and carers in service planning
- methods that can be used to capture stroke patient and carer views
- methods for using views to influence services
- factors that influence people's ability to be involved in care and service planning
- methods of feeding back to stroke patients and carers how their contributions have influenced services
- how service planning and decision making processes work and how they can be influenced

In addition, take into account the knowledge and understanding relating to [10. Specialist rehabilitation](#).

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Project team and
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4 User involvement in care and service planning

Requirements

Knowledge

Skills

Skills and ability to...

- assess services (health, social, voluntary and independent) available locally for those affected by stroke: identify the full range available; establish relevance; communicate and liaise with services; signpost service
- create an open and honest environment that is not intimidating and offers stroke patients 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; medical
- translate the views of those affected by stroke into service planning, development, delivery and monitoring
- identify hard-to-reach groups and ensure that their views are included
- overcome the factors that prevent those affected by stroke from being involved in care and service planning
- identify local opportunities and appropriate formats for formal and informal feedback (e.g. PALS, PPI)
- handle complaints to the satisfaction of all parties

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Project team and contributors

5 Assessment (TIA): assessment and management at time of event

Requirements

Knowledge

Skills

Essential requirements

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

- Assessment
- Preliminary diagnosis/decision
 - Identification of suspected stroke
 - Make a clinical diagnosis
- Investigation
 - Biochemistry and haematology
 - Imaging
 - Cardiovascular assessment
- Treatment/management
 - Initiate treatment
 - Secondary prevention
 - Vascular surgery
- Referral to other agencies and services
- Communication
 - Lifestyle, work and driving advice

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Project team and contributors

5 Assessment (TIA): assessment and management at time of event

Requirements

Knowledge

Skills

Knowledge and understanding of...

- anatomy and physiology of the central nervous system
- 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 risk scoring methods)
- the features of atypical presentation of TIA/stroke and mimics and how to act when they are identified
- investigations, interventions and treatments for TIA (e.g. imaging, vascular, medical, cardiac, surgical)
- implications of the Mental Capacity Act and how it applies to TIA
- advocates for stroke and TIA patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- the timeframe for emergency and follow-on investigations, interventions and treatments for TIA
- how to initiate emergency and ongoing treatment for TIA and vascular prevention
- the indications, contraindications and limitations for imaging, investigations and interventions
- local protocols for imaging and reporting
- any complications of surgical procedures (e.g. stenting, carotid endarterectomy, closure of atrial septal defect (ASD) and patent foramen ovale (PFO))
- the results of investigations
- the implications of TIA for lifestyle, driving, work and family

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Project team and contributors

5 Assessment (TIA): assessment and management at time of event

Requirements

Knowledge

Skills

Knowledge and understanding of... (continued)

- management options for TIA/stroke and mimics, and other conditions

In addition, take into account the knowledge and understanding relating to [2. Managing risk](#).

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Project team and contributors

5 Assessment (TIA): assessment and management at time of event

Requirements

Knowledge

Skills

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; provide information, relevant to individual needs and aspirations (personalise information)
- identify risk factors and apply vascular risk assessment tools for TIA (ABCD2) and screening tests for stroke (FAST)
- identify stroke, high risk TIA, lower risk TIA, atypical stroke and stroke mimics
- establish the cause of TIA
- recognise patients who have had a stroke rather than a TIA and to refer on for appropriate investigation and management
- 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 emergency interventions and treatments for TIA available locally and know how to refer patients efficiently
- identify the service(s) to which the individual should be referred and to liaise effectively with those services
- perform a physiological assessment and assess vital signs
- decide on a relevant investigation and its level of urgency
- apply radiological knowledge for recognised investigations
- apply technical knowledge for recognised investigations and interventions
- apply surgical knowledge for recognised vascular interventions

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Project team and contributors

5 Assessment (TIA): assessment and management at time of event

Requirements

Knowledge

Skills

Skills and ability to... (continued)

- recognise and manage postoperative complications after stenting, endarterectomy, PFO and ASD closure
- obtain and interpret the results of investigations: this includes formulating an immediate and ongoing management plan, and initiating treatments within the relevant timelines
- confirm and communicate diagnosis, lifestyle advice and methods of secondary prevention to patients and carers
- communicate and discuss with the patient, carer, and health and social care professionals a diagnosis, results of investigations and subsequent needs and aspirations and a management plan, as well as the actions to be taken if a further vascular event occurs
- advise on lifestyle, driving, work and family
- identify local management and referral routes for TIA/stroke and mimics, and other conditions

In addition, take into account the skills and abilities required under [8. Assessment \(stroke\)](#); [9. Treatment \(stroke\)](#); [10. Specialist rehabilitation](#); [12. Seamless transfer of care](#); [13. Long-term care](#); [14. Review and 15. Participation in community](#).

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Project team and contributors

6 Treatment (TIA): assessment and management at follow-up

Requirements

Knowledge

Skills

Essential requirements

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

- Assessment
- Final diagnosis/decision
- Further investigation
- Treatment/management
 - Follow-up at one month
 - Secondary prevention: ongoing/regular review
- Referral to other agencies and services
 - TIAs with ongoing problems, TIA mimics and strokes
- Communication
 - TIA/minor stroke advice
 - Lifestyle and driving advice

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Project team and contributors

6 Treatment (TIA): assessment and management at follow-up

Requirements

Knowledge

Skills

Knowledge and understanding of...

- the signs and symptoms of TIA
- atypical presentation of TIA and TIA mimics and how to act when they are identified
- how to distinguish between stroke and TIA
- 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, and the level of urgency for risk factor management
- side effects of pharmacological and non-pharmacological interventions as well as the prevention and management of vascular events
- late complications of surgical procedures (e.g. stenting, carotid endarterectomy, closure of ASD and PFO) and the implications of the procedures on lifestyle
- implications of TIA for lifestyle, driving, work and family
- potential interventions for immediate and ongoing risk factor management
- methods of changing behaviour
- how QOF and community targets for risk factor management affect prevention strategies
- concordance: how to assess; how it is affected by individual preference; how to motivate; how to manage non-concordance
- likely persistent deficits or other ongoing problems
- why TIA/stroke review is important

In addition, take into account the knowledge and understanding relating to [10. Specialist rehabilitation](#).

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Project team and contributors

6 Treatment (TIA): assessment and management at follow-up

Requirements

Knowledge

Skills

Skills and ability to...

- recognise recurrent vascular events
- perform a holistic overview, including assessment of pharmacological and non-pharmacological interventions
- perform and interpret blood pressure measurement and ECG
- assess and facilitate concordance
- assess motivation and take steps to augment management
- monitor progress and agree or change a maintenance or management plan
- use results of history and investigations to confirm a diagnosis and make an individual management plan for the patient, taking into account personal preferences
- identify interventions and treatments for stroke and TIA available locally and know how to refer patients efficiently
- communicate and discuss with the patient, carer, and health and social care professional a diagnosis, results of investigations and subsequent needs and aspirations and a management plan, as well as the actions to be taken if a further vascular event occurs
- identify who provides interventions for immediate and ongoing risk factor management locally and refer
- identify where QOF and community targets for risk factor management may affect prevention strategies and take steps to overcome this
- recognise individuals with persistent deficits or other ongoing problems and arrange rehabilitation, support and management
- encourage people to come for review

In addition, take into account the skills and abilities required under [13. Long-term care](#) and [14. Review](#).

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Project team and contributors

7 Urgent response: pre-hospital assessment and management

Requirements

Knowledge

Skills

Essential requirements

This is a list of the service 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
 - Prevent complications
 - Take to correct place
- Communication

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Project team and contributors

7 Urgent response: pre-hospital assessment and management

Requirements

Knowledge

Skills

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
- the timeframe for emergency investigations, interventions and treatments for stroke and TIA
- 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
- implications of the Mental Capacity Act and how it applies to stroke and TIA
- advocates for stroke and TIA patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- complications after stroke (e.g. aspiration, airway obstruction, hypoxia, hypotension, hypertension, hyperglycaemia, bedsores), and preventing and managing them

In addition, take into account the knowledge and understanding relating to [1. Awareness raising](#); [5. Assessment \(TIA\)](#) and [8. Assessment \(stroke\)](#).

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Project team and contributors

7 Urgent response: pre-hospital assessment and management

Requirements

Knowledge

Skills

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 (e.g. FAST) 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 methods of moving and handling the patient that are safe, depending on the individual patient or staff needs
- recognise stroke-related communication problems and to adapt methods of communication
- identify emergency investigations, interventions for stroke and TIA patients available locally (Stroke Networks) and know where to take them
- identify and appropriately treat stroke mimics, e.g. hypoglycaemia, epileptic seizure

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Project team and contributors

8 Assessment (stroke): emergency assessment and management

Requirements

Knowledge

Skills

Essential requirements

This is a list of the service 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
 - Cardiovascular 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
- Communication

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Project team and
contributors

8 Assessment (stroke): emergency assessment and management

Requirements

Knowledge

Skills

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
- implications of the Mental Capacity Act and how it applies to stroke and TIA
- advocates for stroke patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- 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) and interventions for stroke (e.g. intravenous and intra-arterial thrombolysis, vascular surgery, stenting, hemicraniotomy, evacuation of haematoma) and the timeframe within which they should be given
- the indications and contraindications for investigations, interventions and treatments for stroke
- any complications of investigations, interventions and treatments for stroke and how to prevent and manage them

In addition, take into account the knowledge and understanding relating to [5. Assessment \(TIA\)](#); [6. Treatment](#); [7. Urgent response](#) and [9. Treatment \(stroke\)](#).

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Project team and contributors

8 Assessment (stroke): emergency assessment and management

Requirements

Knowledge

Skills

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; provide information, relevant to individual needs and aspirations (personalise information)
- perform neurological and physiological assessment and assess vital signs
- perform a standardised neurological assessment using a recognised stroke scale (e.g. NIHSS, SNSS)
- 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; 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 timeframes; 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 timescales

In addition, take into account the skills and abilities required under [5. Assessment \(TIA\)](#); [6. Treatment \(TIA\)](#) and [7. Urgent response](#).

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Project team and contributors

9 Treatment (stroke): early assessment and management

Requirements

Knowledge

Skills

Essential requirements

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

- Assessment
- Final diagnosis/decision
- Investigation
- Treatment/management
 - Preventing complications
 - Provide rehabilitation with appropriate
 - frequency
 - intensity
 - duration
 - Discharge planning
 - Communicating effectively with patient/family/team
- Referral to other agencies and services
 - Individuals with other specialist support and management needs

In addition, take into account the service required under [12. Seamless transfer of care](#).

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Project team and
contributors

9 Treatment (stroke): early assessment and management

Requirements

Knowledge

Skills

Knowledge and understanding of...

- signs and symptoms of stroke
- neurological and physiological effects of stroke, monitoring, and the timeframe of changes, during and after a stroke
- the need for early mobilisation and positioning
- assessing swallowing and managing of dysphagia
- alternative methods of feeding, hydration and drug administration for patients 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 hygiene
- 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; medical
- cognitive effects of the stroke and their impact on the patient's ability to consent to treatment
- advocates for stroke patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- the impact of the stroke on family, friends and carers
- assessment and management options for neurological, physiological, functional and psychological problems after stroke

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Project team and contributors

9 Treatment (stroke): early assessment and management

Requirements

Knowledge

Skills

Knowledge and understanding of... (continued)

- 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)
- 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 [7. Urgent response](#); [8. Assessment \(stroke\)](#) and [10. Specialist rehabilitation](#)

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Project team and contributors

9 Treatment (stroke): early assessment and management

Requirements

Knowledge

Skills

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; provide information, relevant to individual needs and aspirations (personalise information)
- perform neurological and physiological assessment and assess vital signs
- perform a standardised neurological assessment using a recognised stroke scale (e.g. NIHSS, SNSS)
- 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; initiate treatments within the relevant timescales
- diagnose stroke using clinical information and investigations: distinguish between a stroke and a TIA; identify atypical strokes and stroke mimics; 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 timeframes; 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
- obtain and interpret the results of investigations and formulate a management plan accordingly

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9 Treatment (stroke): early assessment and management

Requirements

Knowledge

Skills

Skills and ability to... (continued)

- identify and use therapeutic methods of moving and handling the patient that are safe, depending on the individual patient or staff needs and aspirations
- assess and manage: oral problems including dysphagia, nutrition and hydration; 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 patients with dysphagia
- assess and discuss realistic goals with those affected by stroke, plan discharge and link to follow-up services for patients and carers
- recognise impending death and initiate palliative care where necessary

In addition, take into account the skills and abilities required under [5. Assessment \(TIA\)](#); [6. Treatment \(TIA\)](#); [10. Specialist rehabilitation](#); [11. End-of-life care](#); [12. Seamless transfer of care](#); [13. Long-term care](#); [14. Review](#) and [15. Participation in community](#).

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Project team and contributors

10 High-quality specialist rehabilitation

Requirements

Knowledge

Skills

Essential requirements

This is a list of the service 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-led management (medical and rehabilitation)
 - Initiating treatment
 - Medical
 - Non-medical
 - Utilising a range of methods
 - Talking with people
 - Identifying priorities
 - Understanding how to change behaviour
 - Immediate access to stroke specialist rehabilitation
- Referral to other agencies and services
- Communication

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Project team and contributors

10 High-quality specialist rehabilitation

Requirements

Knowledge

Skills

Knowledge and understanding of...

- the impact of stroke on the individual, carer and family
- advocates for stroke patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- the implications of stroke for lifestyle, driving, work, family and acceptance in the community
- MDT assessment: the principles of stroke rehabilitation and rehabilitation referral; therapy techniques and their application
- a range of neurological treatment approaches and their applications
- **psychological and emotional** problems after stroke (e.g. depression, emotionalism, anxiety, self esteem, confidence, well-being, challenging behaviour)
- **social and relationship** problems after stroke (e.g. sex, lifestyle, work, housing, driving, transport, leisure, financial/income, work/employment, children, family, support network, carers, respite, pets)
- **cognitive and communication** problems after stroke (e.g. spatial awareness (neglect/inattention); visual field deficits; hemianopia; memory; attention; praxis; executive function; aphasia, dysarthria, articulatory dyspraxia)
- **physiological, physical and functional** problems after stroke (e.g. rest and sleep; respiratory, mobility; balance; senses; incontinence; bladder and bowel management; swallowing; feeding, nutrition and hydration; skin integrity; sexual; motor control; ADL)
- **neurological, visual and sensory impairments and pain** problems (e.g. shoulder pain, central post-stroke pain, spasticity, seizures)
- **medical** problems (e.g. medication, comorbidities, complications)

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10 High-quality specialist rehabilitation

Requirements

Knowledge

Skills

Knowledge and understanding of... (continued)

- 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: psychological and emotional; social and relationship; cognitive and communication; physiological, physical and functional; neurological, visual and sensory impairments and pain; medical
- the impact of problems after stroke on day-to-day and outdoor functioning: psychological and emotional; social and relationship; cognitive and communication; physiological, physical and functional; neurological, visual and sensory impairments and pain; medical
- methods that will support those affected by stroke with their recovery and help them to cope with problems after stroke: psychological and emotional; social and relationship; cognitive and communication; physiological, physical and functional; neurological, visual and sensory impairments and pain; medical
- 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 that will also help recovery after stroke, and their side effects
- any 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)
- methods to facilitate communication with those affected by stroke
- therapeutic moving and handling

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Project team and contributors

10 High-quality specialist rehabilitation

Requirements

Knowledge

Skills

Knowledge and understanding of... (continued)

- methods of changing behaviour
- the use of assessments and measures
- the principles of goal setting
- assistive technology and other therapy interventions (e.g. functional electrical stimulation, orthotics)
- 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](#); [4. User involvement](#); [5. Assessment \(TIA\)](#); [6. Treatment \(TIA\)](#); [9. Treatment \(stroke\)](#); [12. Seamless transfer of care](#) and [13. Long-term care](#).

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Project team and
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10 High-quality specialist rehabilitation

Requirements

Knowledge

Skills

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 timely and appropriate assessments/investigations and interventions/treatments; provide information, relevant to individual needs and aspirations (personalise information)
- provide a range of neurological intervention processes and to be able to clinically reason the selection and administration of an approach
- 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
- assess, discuss and review with those affected by stroke, including client-centred goal-setting and outcomes
- identify rehabilitation and support services in hospital and after discharge: inform the individual 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, transport) to overcome barriers, 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

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10 High-quality specialist rehabilitation

Requirements

Knowledge

Skills

Skills and ability to... (continued)

- assess motivation and take steps to augment management
- assess and help with concordance
- identify and use therapeutic methods of moving and handling the patient that are safe, depending on the individual patient or staff needs and aspirations, 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 **psychological and emotional** problems after stroke (e.g. depression, emotionalism, anxiety, self esteem, confidence, well-being, challenging behaviour) and to help patients and their families to cope and manage; build self-esteem and confidence, encourage recovery and maximise potential
- recognise the signs, symptoms and impact of **social and relationship** problems after stroke (e.g. lifestyle, work, housing, driving, transport, leisure, financial/income, work/employment, children, family, support network, carers, relating, respite, pets) and to help patients and their families to cope and manage; encourage recovery and maximise potential
- recognise the signs, symptoms and impact of **cognitive and communication** problems after stroke (e.g. spatial awareness (neglect/inattention); hemianopia; visual field deficits; memory; attention; praxis; executive function; aphasia, dysarthria, articulatory dyspraxia) and to help patients and their families to cope and manage; encourage recovery and maximise potential

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Project team and contributors

10 High-quality specialist rehabilitation

Requirements

Knowledge

Skills

Skills and ability to... (continued)

- recognise the signs, symptoms and impact of **physiological, physical and functional** problems after stroke (e.g. rest and sleep; respiratory, mobility; balance; senses; incontinence: bladder and bowel management; swallowing; feeding, nutrition and hydration; skin integrity; sexual; motor control; ADL) and to help patients and their families to cope and manage; encourage recovery and maximise potential
- recognise the signs, symptoms and impact of **neurological, visual and sensory impairments and pain** problems (e.g. shoulder pain; central post-stroke pain; spasticity, seizures) and to help patients and their families to cope and manage; encourage recovery and maximise potential
- recognise the signs, symptoms and impact of **medical** problems (e.g. medication, comorbidities, complications) and to help patients and their families to cope and manage; encourage recovery and maximise potential
- use a range of communication resources and approaches to ensure that patients and their carers are fully involved in the decision-making process and their care
- provide a client-centred approach to care and manage any challenging behaviour

In addition, take into account the skills and abilities required under [13. Long-term care](#) and [14. Review](#).

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Project team and contributors

11 End-of-life care

Requirements

Knowledge

Skills

Essential requirements

This is a list of the service 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, preferred place of care
 - Home
 - Hospital
 - Institution
- Referral to other agencies and services
- Communication

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Project team and contributors

11 End-of-life care

Requirements

Knowledge

Skills

Knowledge and understanding of...

- end-of-life care strategies, advanced directives, and palliative care tools in relation to stroke
- the implications of the Mental Capacity Act for stroke patients
- advocates for stroke patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- the range of support groups and services for those affected by stroke with palliative care needs
- the needs and aspirations of those affected by stroke (i.e. patient, 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, visual and sensory impairments and pain; 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

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Project team and contributors

11 End-of-life care

Requirements

Knowledge

Skills

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; provide information, relevant to individual needs and aspirations (personalise information)
- communicate and discuss: current event; interventions/treatments and their timeframes; 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 or differing treatments where necessary: agree referral
- recognise and manage symptoms taking account of individual needs and aspirations
- use palliative care, or other relevant tools and 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 palliative care team and provide opportunities for debriefing sessions

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Project team and contributors

12 Seamless transfer of care

Requirements

Knowledge

Skills

Essential requirements

This is a list of the service 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 pathway of care across and between)
- Communication

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Project team and contributors

12 Seamless transfer of care

Requirements

Knowledge

Skills

Knowledge and understanding of...

- the assessment and management of problems: psychological and emotional; social and relationship; cognitive and communication; physiological, physical and functional; neurological, visual and sensory impairments and pain; medical; and how to involve users and carers
- advocates for stroke patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- 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](#); [4. User involvement](#) and [10. Specialist rehabilitation](#).

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Project team and contributors

12 Seamless transfer of care

Requirements

Knowledge

Skills

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 and treatments; provide information, relevant to individual needs and aspirations (personalise information)
- assess, discuss and review with those affected by stroke: goal-setting, outcomes and exit strategies
- monitor progress and agree or change a maintenance or management plan
- identify need and when to refer for more specialist or differing treatments where necessary
- identify local services and resources (e.g. health, social, voluntary, independent sector; equipment and adaptations, rehabilitation, psychological, educational, employment, housing, transport) to facilitate participation and inclusion: check availability and waiting times; inform individual about services, identify how to access, or re-access, them and agree referral
- liaise with and work across agencies
- identify and utilise resources available locally and nationally to support those affected by stroke
- 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 & abilities required under [3. Information](#).

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contributors

13 Long-term care and support

Requirements

Knowledge

Skills

Essential requirements

This is a list of the service 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 (e.g. ensure that the patient takes medication, attends therapy sessions)
- Referral and re-referral to other agencies and services
- Communication

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Project team and contributors

13 Long-term care and support

Requirements

Knowledge

Skills

Knowledge and understanding of...

- the assessment and management of problems: psychological and emotional; social and relationship; cognitive and communication; physiological, physical and functional; neurological, visual and sensory impairments and pain; medical
- advocates for stroke patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- the needs and aspirations of those affected by stroke, particularly those related to the problems listed above, and how these needs and aspirations 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 and personal budgets, self-management, respite care, equipment, adaptations, rehabilitation, psychological, educational, employment, housing, transport)
- assistive technology and other therapy interventions (e.g. functional electrical stimulation, orthotics)
- 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

In addition, take into account the knowledge and understanding relating to [2. Managing risk](#); [5. Assessment \(TIA\)](#); [6. Treatment \(TIA\)](#) and [10. Specialist rehabilitation](#).

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Project team and contributors

13 Long-term care and support

Requirements

Knowledge

Skills

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
- 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
- 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 programmes)
- assess and facilitate concordance

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Project team and contributors

Requirements

Knowledge

Skills

Essential requirements

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

- Assessment
 - Person who has had the stroke review
 - Specialist review
 - Information
 - Support
 - Rehabilitation
- Preliminary diagnosis/decision
- Investigation
- Treatment/management
 - 6 week review (post-discharge) and
 - 6 month and
 - Annual
- Communication

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Requirements

Knowledge

Skills

Knowledge and understanding of...

- the assessment and management of problems: psychological and emotional; social and relationship; cognitive and communication; physiological, physical and functional; neurological, visual and sensory impairments and pain; medical
- advocates for stroke patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- the needs and aspirations of those affected by stroke, particularly those related to the problems listed above, and how these needs and aspirations can be met
- 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)
- 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 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

In addition, take into account the knowledge and understanding relating to [2. Managing risk](#); [5. Assessment \(TIA\)](#); [6. Treatment \(TIA\)](#) and [10. Specialist rehabilitation](#).

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Requirements

Knowledge

Skills

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
- 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; provide information, relevant to individual needs and aspirations (personalise information)
- identify need and when to refer for more specialist or differing interventions/treatments where 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 [10. Specialist rehabilitation](#).

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15 Participation in community life

Requirements

Knowledge

Skills

Essential requirements

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

- Assessment
 - Person and family-led assessment and management
 - Specialist review
 - Information
 - Support
 - Rehabilitation
- Preliminary diagnosis/decision
- Investigation
- Treatment/Management
 - Provision of
 - equipment
 - adaptations
- Communication

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15 Participation in community life

Requirements

Knowledge

Skills

Knowledge and understanding of...

- the assessment and management of problems: psychological and emotional; social and relationship; cognitive and communication; physiological, physical and functional; neurological, visual and sensory impairments and pain; medical
- advocates for stroke patients when there is a legal duty to instruct an IMCA, taking account of religious and cultural aspirations
- the needs and aspirations of those affected by stroke, particularly those related to the problems listed above, and how these needs and aspirations can be met
- 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)
- the impact of stroke on the individual, carer and family
- the implications of stroke for lifestyle; driving; work, including voluntary and family
- methods to help communication with those affected by stroke, including when conducting a review

In addition, take into account the knowledge and understanding relating to [10. Specialist rehabilitation](#).

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15 Participation in community life

Requirements

Knowledge

Skills

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 or change a maintenance or management plan
- plan assessments and treatments; provide information, relevant to individual needs and aspirations (personalise information)
- identify need and when to refer for more specialist or differing treatments where necessary
- know of local services, their waiting times and implications for those affected by stroke and ensure that the individual is aware
- use individual commissioning

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16 Return to work

Requirements

Knowledge

Skills

Essential requirements

This is a list of the service 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

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16 Return to work

Requirements

Knowledge

Skills

Service required (continued)

- 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

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16 Return to work

Requirements

Knowledge

Skills

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, the Disability Discrimination Act, health and safety at work
- the roles of healthcare and other professionals in employment-related services (occupational health, occupational psychologist, disability employment adviser)
- the occupational therapist's role in vocational rehabilitation
- Jobcentre Plus, its services and its 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 (British Society of Rehabilitation Medicine; Vocational Rehabilitation Association; UK Rehabilitation Council)

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16 Return to work

Requirements

Knowledge

Skills

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 pathway
- 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
- implement guidelines in practice
- help the stroke survivor to remain in work, review the stroke survivor at work/in education and advise on workplace accommodations

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