



Key recommendations for stroke 2016

This concise guide contains 30 key recommendations identified by the Intercollegiate Stroke Working Party, which, if followed, will enhance the quality of stroke care. They have been extracted from the National Clinical Guideline for Stroke, 5th edition, which contains over 400 recommendations covering almost every aspect of stroke management. The reference number of each recommendation is provided so that they can be found in the main guideline www.strokeaudit.org/guideline. This concise guide should not be read in isolation, and members of the stroke multidisciplinary team should consider the guideline in full.

Overall structure of stroke services

6.1.1A Commissioning organisations should ensure that their commissioning portfolio includes the whole stroke pathway from prevention (including neurovascular services) through acute care, early rehabilitation, secondary prevention, early supported discharge, community rehabilitation, systematic follow-up, palliative care and long-term support.

Commissioning acute stroke services

6.2.1B Commissioners should commission acute stroke services in accordance with the recommendations in this guideline to provide:

- > urgent brain imaging for patients with suspected acute stroke;
- > treatment with alteplase for patients with acute ischaemic stroke;
- > an endovascular service for patients with acute ischaemic stroke;
- > a neuroscience service to admit, investigate and manage patients referred with subarachnoid haemorrhage, both surgically and with interventional radiology;
- > a neuroscience service delivering neurosurgical interventions for intracerebral haemorrhage, malignant cerebral oedema, and hydrocephalus;
- > direct admission of patients with acute stroke to a hyperacute stroke unit providing active management of physiological status and homeostasis within 4 hours of arrival at hospital;
- > an acute neurovascular service for the diagnosis and treatment of people with suspected TIA;

- > an acute vascular surgical service to investigate and manage patients with TIA and non-disabling stroke due to carotid artery stenosis.

Commissioning rehabilitation services

6.4.1A Commissioners should commission stroke rehabilitation services in accordance with the recommendations in this guideline to provide:

- > an inpatient stroke unit capable of providing stroke rehabilitation for all people with stroke admitted to hospital;
- > a specialist early supported discharge service to enable people with stroke to receive rehabilitation at home or in a care home;
- > specialist rehabilitation services capable of meeting the specific health, social and vocational needs of people with stroke of all ages;
- > services capable of delivering specialist rehabilitation in out-patient and community settings in liaison with in-patient services.

Overall organisation of acute stroke services

2.2.1A Community medical services and ambulance services (including call handlers and primary care reception staff) should be trained to recognise people with symptoms indicating an acute stroke as an emergency requiring transfer to a hyperacute stroke centre.

Specialist stroke services

2.3.1B People with suspected acute stroke (including when occurring in people already in hospital) should be admitted directly to a hyperacute

stroke unit and be assessed for emergency stroke treatments by a specialist physician without delay.

Resources

2.4.1A People with stroke should be treated on a specialist stroke unit throughout their hospital stay unless their stroke is not the predominant clinical problem.

2.4.1B A hyperacute and/or acute stroke service should provide specialist medical, nursing, and rehabilitation staffing levels matching the recommendations in Table 2.1.

2.4.1D A hyperacute stroke unit should have continuous access to a consultant with expertise in stroke medicine, with consultant review 7 days per week.

2.4.1K A facility that provides treatment for in-patients with stroke should include:

- > a geographically-defined unit;
- > a co-ordinated multi-disciplinary team that meets at least once a week for the exchange of information about in-patients with stroke;
- > information, advice and support for people with stroke and their family/carers;
- > management protocols for common problems, based upon the best available evidence;
- > close links and protocols for the transfer of care with other in-patient stroke services, early supported discharge teams and community services;
- > training for healthcare professionals in the specialty of stroke.

Transfers of care from hospital to home

2.7.1A Hospital in-patients with stroke who have mild to moderate disability should be offered early supported discharge, with treatment at home beginning within 24 hours of discharge.

2.7.1K People with stroke, including those living in care homes, should continue to have access to specialist services after leaving hospital, and should be provided with information about how to contact them.

Service governance and quality improvement

2.8.1B Services for people with stroke should take responsibility for all aspects of service quality by:

- > keeping a quality register of all people admitted to their organisation with a stroke;
- > regularly reviewing service provision against the evidence-based standards set out in relevant national clinical guidelines;
- > providing practical support and multi-disciplinary leadership to the process of clinical audit;
- > participating actively in regional and national quality improvement initiatives such as Clinical Networks.

2.8.1D The views of people with stroke and their family/carers should be actively sought when evaluating service quality and safety, and when planning service developments.

Rehabilitation approach - intensity of therapy

2.11.1A People with stroke should accumulate at least 45 minutes of each appropriate therapy every day, at a frequency that enables them to meet their rehabilitation goals, and for as long as they are willing and capable of participating and showing measurable benefit from treatment.

Psychological care - organisation and delivery

2.12.1A Services for people with stroke should have a comprehensive approach to delivering psychological care that includes specialist clinical neuropsychology/clinical psychology input within the multi-disciplinary team.

End-of-life (palliative) care

2.15.1A Services providing acute and long-term care for people with stroke should provide high-quality end-of-life care for those who need it.

People with stroke in care homes

2.17.1A People with stroke living in care homes should be offered assessment and treatment from community stroke rehabilitation services

to identify activities and adaptations that might improve quality of life.

Management of TIA - assessment and diagnosis

3.2.1A Patients with acute neurological symptoms that resolve completely within 24 hours (i.e. suspected TIA) should be given aspirin 300 mg immediately and assessed urgently within 24 hours by a specialist physician in a neurovascular clinic or an acute stroke unit.

Diagnosis of acute stroke

3.4.1B Patients with suspected acute stroke should receive brain imaging urgently and at most within 1 hour of arrival at hospital

Management of ischaemic stroke

3.5.1A Patients with acute ischaemic stroke, regardless of age or stroke severity, in whom treatment can be started within 3 hours of known onset should be considered for treatment with alteplase.

3.5.1G Patients with acute ischaemic stroke should be considered for combination intravenous thrombolysis and intra-arterial clot extraction (using stent retriever and/or aspiration techniques) if they have a proximal intracranial large vessel occlusion causing a disabling neurological deficit (National Institutes of Health Stroke Scale [NIHSS] score of 6 or more) and the procedure can begin (arterial puncture) within 5 hours of known onset.

Management of primary intracerebral haemorrhage

3.6.1D Patients with primary intracerebral haemorrhage who present within 6 hours of onset with a systolic blood pressure above 150mmHg should be treated urgently using a locally agreed protocol for blood pressure lowering to a systolic blood pressure of 140 mmHg for at least 7 days, unless:

- > the Glasgow Coma Scale score is 5 or less;
- > the haematoma is very large and death is expected;

- > a structural cause for the haematoma is identified;
- > immediate surgery to evacuate the haematoma is planned.

Acute stroke care

3.10.1E Patients with acute stroke should have their swallowing screened, using a validated screening tool, by a trained healthcare professional within four hours of arrival at hospital and before being given any oral food, fluid or medication.

Early mobilisation

3.12.1B Patients with difficulty moving early after stroke who are medically stable should be offered frequent, short daily mobilisations (sitting out of bed, standing or walking) by appropriately trained staff with access to appropriate equipment, typically beginning between 24 and 48 hours of stroke onset. Mobilisation within 24 hours of onset should only be for patients who require little or no assistance to mobilise.

Deep vein thrombosis and pulmonary embolism

3.13.1A Patients with immobility after acute stroke should be offered intermittent pneumatic compression within 3 days of admission to hospital for the prevention of deep vein thrombosis. Treatment should be continuous for 30 days or until the patient is mobile or discharged, whichever is sooner.

Activities of daily living - work and leisure

4.1.4.1B People who wish to return to work after stroke (paid or unpaid employment) should:

- > have their work requirements established with their employer (provided the person with stroke agrees);
- > be assessed cognitively, linguistically and practically to establish their potential for return;
- > be advised on the most suitable time and way to return to work, if return is feasible;
- > be referred through the job centre to a specialist in employment for people with disability if extra support or advice is needed;

> be referred to a specialist vocational rehabilitation team if the job centre specialist is unable to provide the necessary rehabilitation.

Aphasia

4.4.1.1A People with communication problems after stroke should be assessed by a speech and language therapist to diagnose the problem and to explain the nature and implications to the person, their family/carers and the multidisciplinary team. Reassessment in the first four months should only be undertaken if the results will affect decision-making or are required for mental capacity assessment.

Hydration and nutrition

4.7.1F Patients with stroke who are unable to maintain adequate nutrition and fluids orally should be:

- > referred to a dietitian for specialist nutritional assessment, advice and monitoring;
- > be considered for nasogastric tube feeding within 24 hours of admission;
- > assessed for a nasal bridle if the nasogastric tube needs frequent replacement, using locally agreed protocols;
- > assessed for gastrostomy if they are unable to tolerate a nasogastric tube with nasal bridle.

Blood pressure

5.4.1A People with stroke or TIA should have their blood pressure checked, and treatment should be initiated and/or increased as tolerated to consistently achieve a clinic systolic blood pressure below 130 mmHg, except for people with severe bilateral carotid artery stenosis, for whom a systolic blood pressure target of 140–150 mmHg is appropriate.

Life after stroke - further rehabilitation

5.9.1.1A People with stroke, including those living in a care home, should be offered a structured health and social care review at six months and 1 year after the stroke, and then annually. The review should consider whether further interventions are needed, and the person should be referred for further specialist assessment if:

- > new problems are present;
- > the person's physical or psychological condition, or social environment has changed.

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