NHS Services, Seven Days a Week

The 4 Priority Clinical Standards applied to Stroke Services – Updated December 2018

No.	Standard	Stroke Standard
2	**Time to first consultant review**	

	Standard:
	
	All emergency admissions must be seen and have a thorough clinical assessment by a suitable consultant as soon as possible but at the latest within 14 hours from the time of arrival at hospital.
	
	Confirmed acute stroke patients with a low risk of mortality (<10% in the first 72 hours) can be reviewed by a consultant within 14 hours of admission using either tele-medicine (via a video link) or by telephone. This should be followed by a face to face consultant review within 24 hours of admission.
	
	Each acute trust which admits acute stroke patients should confirm that this guidance is in operation through the creation of a local written protocol agreed by the trust Medical Director
	
	Supporting information:
	
	• All patients to have a National Early Warning Score (NEWS) established at the time of admission.
	• Consultant involvement for patients considered 'high risk' (defined as where the risk of mortality is greater than 10%, or where a patient is unstable and not responding to treatment as expected) should be within one hour.
	• Standards are not sequential; clinical assessment may require the results of diagnostic investigation.
	• A 'suitable' consultant is one who is familiar with the type of emergency presentations in the relevant specialty and is able to initiate a diagnostic and treatment plan.
	• The standard applies to emergency admissions via any route,
		Stroke Standard:
		
		All patients with suspected acute stroke should be admitted directly to a Hyper Acute Stroke Unit and be assessed by a suitable stroke-skilled specialist within 1 hour and a stroke skilled consultant ASAP but within 14 hours upon **arrival** at hospital – this is including weekends; *confirmed acute stroke patients with a low risk of mortality (<10% in the first 72 hours) can be reviewed by a consultant within 14 hours of admission using either tele-medicine (via a video link) or by telephone. This should be followed by a face to face consultant review within 24 hours of admission.*
		
		Stroke skilled consultant is defined as a stroke consultant or a consultant that meets BASP criteria. Only this can be accepted as first consultant review.
		
		Supporting Information:
		
		• Current in-patient stroke mortality in the UK is 15% (aggregated data for all stroke types and severity). 72-hour mortality for patients with haemorrhage OR who are anything other than 'Alert' in the UK is 13.5% (SSNAP data). This group represents 24% of all acute strokes.
		• Time to senior review in the UK is:
		  ○ 44.3% within 12 hours
		  ○ 31.4% between 12 and 24 hours
		  ○ 16.7% between 24 and 72 hours
		• Median time to consultant review is currently 12h 57min

No.	Standard	Stroke Standard
	not just the Emergency Department. Assessment using video-linked telemedicine is an acceptable alternative to face to face assessment. However in order for this to be a satisfactory consultation there needs to be appropriately trained nursing or medical staff able to perform clinical examination and access to remove assessment of radiology and other relevant investigations	• A 'suitable' consultant in stroke is defined by the stroke specialist standards (appendix a, page 8). Consultant level staff from nursing or therapy provided they have the appropriate skills can replace medical consultant. • All patients need to be seen whether they are potentially suitable for thrombolysis • All patients need to be seen whether they are potentially suitable for thrombectomy when NIHSS is equal to or greater than 8.

No.	Standard	Stroke Standard
5	**Diagnostics**	
	Standard: Hospital inpatients must have scheduled seven-day access to diagnostic services such as x-ray, ultrasound, computerised tomography (CT), CT-Angiogram, magnetic resonance imaging (MRI), echocardiography, endoscopy, bronchoscopy and pathology. Consultant-directed diagnostic tests and completed reporting will be available seven days a week: • Within 1 hour for critical patients • Within 12 hours for urgent patients • Within 24 hours for non-urgent patients. **Supporting information:** • It is expected that all hospitals have access to radiology, haematology, biochemistry, microbiology and histopathology. • Critical patients are considered those for whom the test will alter their management at the time; urgent patients are considered those for whom the test will alter their management but not necessarily that day. • Standards are not sequential; if critical diagnostics are required they may precede the thorough clinical assessment by a suitable consultant in standard 2. • Investigation of diagnostic results should be seen and acted on promptly by the MDT, led by a competent decision maker. • Where a service is not available on-site (e.g. interventional radiology/endoscopy or MRI), clear patient pathways must be in place between providers.	**Stroke Standard:** Under this standard, the great majority of patients with stroke within 6-8 hours of onset will be classified as 'critical', in that the exclusion of haemorrhage by plain CT will directly affect treatment decisions at the time. Plain CT should therefore be available within 1 hour for patients with stroke during the overnight and weekend periods. The 5th edition of the National Clinical Guidelines for stroke state that all stroke patients should have brain imaging within 1 hour of admission, regardless of the time of onset of the stroke or the time of presentation to the hospital Clear patient pathways will be required for transfer between providers of patients eligible for endovascular treatment of acute large artery occlusion, including access to appropriate diagnostics (CT angiography as a minimum) at the referring and receiving centres: In the view of thrombectomy, CT-Angiogram Arch to Circle is not an integral part of imaging requirements across the West Midlands 24/7 but we must now support all HASU trusts to have access 24/7 to CT-Angiogram once thrombectomy pathways go live; CT Angiogram (arch to circle) is used for selecting patients for thrombectomy. **Supporting Information** • Currently 44.1% of acute stroke admissions receive brain imaging within 1 hour of hospital arrival, and 88.2% within 12 hours. • Appropriately trained stroke consultants are suitable people to interpret CT and MRI brain imaging but there needs to be access to neuroradiology expertise for exceptional cases

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	• 7-day consultant presence in the radiology department is envisaged. • Non-ionizing procedures may be undertaken by independent practitioners and not under consultant direction.	• Access to carotid imaging needs to be available within 24 hours of presentation with minor stroke or TIA. This can either be ultrasound or CT angiography
6	**Intervention / key services**	
	Standard: Hospital inpatients must have timely 24 hour access, seven days a week, to consultant-directed interventions that meet the relevant specialty guidelines, either on-site or through formally agreed networked arrangements with clear protocols, such as: • Critical care • Interventional radiology • Interventional endoscopy • Emergency general surgery. **Supporting information:** • Standards are not sequential; if an intervention is required it may precede the thorough clinical assessment by a suitable consultant in standard 2. • Other interventions may also be required. For example, this may include: • Renal replacement therapy • Urgent radiotherapy • Thrombolysis (for acute ischaemic stroke) • PCI • Cardiac pacing.	**Stroke Standard:** Patients presenting with acute ischaemic stroke will require access to intravenous thrombolysis, t and neurosurgical interventions 24 hours a day, seven days a week. These may be available through formally agreed network arrangements with clear protocols. Delivery of thrombectomy services for stroke is at an early stage and is not proposed to be included in the U&E care standards at this stage.

No.	Standard	Stroke Standard
8	**On-going review**	
	Standard: All patients on the AMU, SAU, ICU and other high dependency areas must be seen and reviewed by a consultant twice daily, including all acutely ill patients directly transferred, or others who deteriorate. To maximise continuity of care consultants should be working multiple day blocks. Once transferred from the acute area of the hospital to a general ward patients should be reviewed during a consultant-delivered ward round at least once every 24 hours, seven days a week, unless it has been determined that this would not affect the patient's care pathway. **Supporting information:** • Patients, and where appropriate carers and families, must be made aware of reviews. Where a review results in a change to the patient's management plan, they should be made aware of the outcome and provided with relevant verbal, and where appropriate written, information. • Inpatient specialist referral should be made on the same day as the decision to refer and patients should be seen by the specialist within 24 hours or one hour for high risk patients (defined as where the risk of mortality is greater than 10%, or where a patient is unstable and not responding to treatment as expected). • Consultants 'multiple day blocks' should be between two and four continuous days. • Ward rounds are defined as a face-to-face review of all patients and include members of the nursing team to ensure proactive management and transfer of information.	**Stroke Standard:** Under this definition, patients with acute stroke on a Hyper-acute Stroke Unit will require twice daily consultant review (beds identified for the care of stroke within 72 hours of admission). Patients on an Acute Stroke Unit will require daily consultant review (post-72 hours patients) up to the point where the patient is medically stable and fit to be transferred to a rehabilitation unit or discharged home A consultant can be either a stroke consultant or a medical consultant with appropriate training and skills to manage the neurological and medical complications associated with acute stroke Nursing or therapy consultants or senior trust grade medical staff with appropriate training and competency can substitute for the stroke consultant. Consultation can be performed by video-linked telemedicine under some circumstances All patients need to be seen whether they received thrombolysis or not

No.	Standard	Stroke Standard
	• Once admitted to hospital, patients should not be transferred between wards unless their clinical needs demand it. • The number of handovers between teams should be kept to a minimum to maximise patient continuity of care. • Where patients are required to transfer between wards or teams, this is prioritised by staff and supported by an electronic record of the patient's clinical and care needs. • Inpatients not in high dependency areas must still have daily review by a competent decision-maker. This can be delegated by consultants on a named patient basis. The responsible consultant should be made aware of any decision and available for support if required.	

Appendix

A: BASP Stroke Specialist Standards

BRITISH ASSOCIATION OF STROKE PHYSICIANS

ADVANCING STROKE MEDICINE

REGISTERED CHARITY NO. 1134589

Definitions of a Stroke Specialist Physician

A **Stroke Specialist** is a physician with specialist skills in stroke. A stroke specialist has expertise in all 3 principal areas of stroke management (Prevention, Acute Stroke, Stroke Rehabilitation). To be regarded as a specialist the practitioner will meet all 6 of the following criteria:

1. Completion of specialist training (new specialists) or recognized expertise (existing specialists);
2. Ongoing active involvement in stroke management (at least 5 PA of which at least 3 are direct clinical care);
3. Annual attendance of at least one stroke specific training event or conference;
4. Evidence of adequate continued professional development in the field of Stroke Medicine (a yearly minimum of 25 hours);
5. Participation in at least one national stroke-related audit per annum;
6. Basic research skills (GCP training, participation in or facilitation of stroke research).

A **Stroke Sub-specialist** is a physician with specialist skills in one of the 3 principal areas of stroke management (e.g. Stroke Prevention/TIA Specialist, Acute Stroke Specialist, Stroke Rehabilitation Specialist). To be regarded as a sub-specialist the practitioner will meet 5 of the following 6 criteria:

1. Completion of specialist/ sub-specialist training (new specialists) or recognized expertise (existing specialists/ sub-specialists);
2. Ongoing active involvement in stroke management (at least 3 PA of which at least 2 are direct clinical care);
3. Annual attendance of at least one stroke specific training event or conference;

4. Evidence of adequate continued professional development in the field of Stroke Medicine (a yearly minimum of 15 h for a sub-specialist);
5. Contribution to at least one national stroke-related audit per annum;
6. Basic research skills (GCP training, participation in or facilitation of stroke research).

A **Physician with Stroke Skills** has stroke specific skills in addition to their main area of expertise. To be regarded as a physician with specialist stroke skills the practitioner will meet 4 of the following 5 criteria:

1. Evidence of specific training or expertise in at least one of the 3 principal areas of stroke medicine (Prevention, Acute stroke, Stroke Rehabilitation) relevant to their role in the stroke service;
2. Active involvement in the management of stroke patients on a regular basis;
3. Work within the infrastructure of a stroke team with agreed treatment pathways and guidelines, regular audit and peer support;
4. Knowledge of guidelines and pathways relevant to their practise of stroke medicine;
5. Attendance of at least one stroke specific training event per annum.

Each Stroke Service should have at least one Stroke Specialist. All other consultants providing day to day care to stroke patients should be Stroke Specialists or Stroke Sub-specialists. Physicians with Stroke Skills could be involved in the delivery of thrombolysis, assessment of TIAs, and /or in weekend ward rounds on the stroke unit under the guidance of a stroke specialist/sub-specialist.

BASP Clinical Standards Committee

August 2011