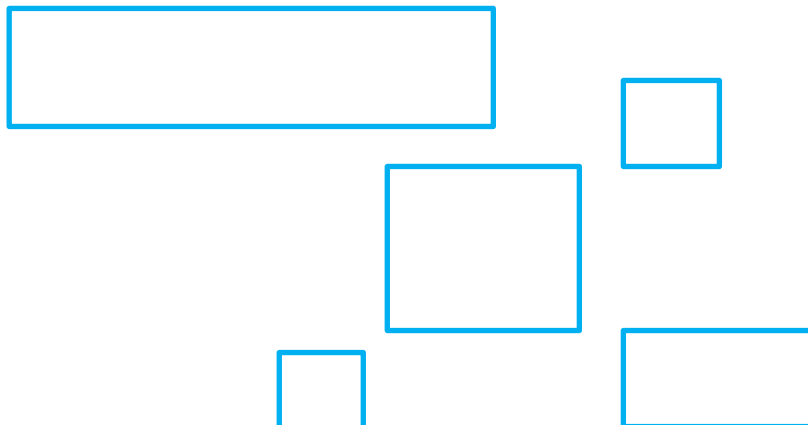


Stroke acute commissioning and tariff guidance



Contents

1. Introduction	5
1.1 Who is this document for?	5
2. Pathway of care	6
2.1 Hyper-acute stroke units.....	6
2.2 Stroke units.....	6
2.3 Transient Ischaemic Attacks	7
2.4 Performance standards	7
2.5 Aligning demand to HASU capacity.....	7
2.6 Pan-London stroke protocols.....	8
3. Commissioning HASU, stroke unit and TIA services	9
3.1 Tariff.....	9
3.2 Contracting rules – HASU and stroke unit.....	10
3.2.1 General contracting rules for stroke units.....	11
3.2.2 General contracting rules for HASUs	12
3.3 London Stroke Look Up Table.....	13
3.4 Consideration of patient choice	14
4. TIA services	15
4.1 TIA service standards	15
5. Data collection.....	16
Appendix 1: Designated stroke services in London.....	17
1.1 Hyper-acute stroke units (HASUs).....	17
1.2 Stroke units.....	17
1.3 TIA services	18
Appendix 2: Stroke unit catchments and London sector boundaries.....	19
Appendix 3: Performance standards for HASU.....	20
Appendix 4: Performance standards for SU	23
Appendix 5: Performance standards for TIA.....	28
Appendix 6: Pan London stroke protocols	29
6.1 Protocol for transfer from HASU to SU	29
6.2 Protocols for SU to community transfers	30
6.3 Protocol for transfer of mimics when diagnosis is not stroke.....	30
6.4 Protocol for managing acute strokes occurring in in-patients.....	31

6.5 Protocol for managing acute stroke patients presenting at a non-HASU A&E/Urgent Care Centre (UCC)	32
6.6 Protocol for TIA referral pathways	33
6.7 Protocol for 24/7 neuroradiology access.....	33
6.8 Protocol for vascular surgery	33
6.9 Protocol for neurosurgery referrals	34

Executive summary

This document provides guidance on the commissioning and tariff arrangements associated with the acute stroke system in London. It outlines:

- the expected best practice pathway of care for stroke patients
- guidance on the London tariff and how to apply the charges
- contracting guidance for activity in hyper-acute stroke units (HASUs), stroke units (SUs), and transient ischaemic attack (TIA) services
- information on current data collection

What providers and commissioners of acute stroke services need to do:

Providers

1. Understand and implement the financial and contractual arrangements.
2. Ensure information exists to support both standards monitoring and contract monitoring.

Commissioners

1. Understand and implement the financial and contractual arrangements.
2. Ensure robust processes are in place to assess acute stroke services.
3. Ensure processes exist to support contract monitoring.

1. Introduction

Stroke care in London was centralised into eight hyper-acute stroke units and 24 acute stroke units in 2010. The reconfiguration resulted in a significant decline in risk-adjusted mortality, with approximately 168 lives saved at 90 days after admission, and a 7% reduction in length of stay in the first 21 months.¹

The guidelines outlined in this document have been developed to ensure the continuation of improvement in quality of care and benefit for patients. The Stroke Strategic Clinical Leadership Group advocate this can only be achieved by maintaining the existing configuration of units, the infrastructure of the units, and the quality standards outlined in this document.

1.1 Who is this document for?

This document is intended for use by Clinical Commissioning Groups (CCGs), Commissioning Support Units (CSUs), and providers of acute stroke services. It describes the arrangements required of any CCG commissioning services from a London provider, including those CCGs outside London.

The commissioning and tariff guidance was originally developed in 2009 from discussions with a commissioning and finance panel and a commissioning and finance working group (see Healthcare for London: Stroke acute commissioning and tariff guidance, 2009).

¹ Morris, S.; Hunter, R.; Ramsay, A.; Boaden, R.; Mc Kevitt, C.; Perry, C.; Pursani, N.; Rudd, A.; Schwamm, L.; Turner, S.; Tyrrell, P.; Wolfe, C. and Fulop, N. (2014) *Impact of centralising acute stroke services in English metropolitan areas on mortality and length of hospital stay: difference-in –difference analysis*. BMJ 2014;349:g4757

2. Pathway of care

The London stroke pathway expects that all patients with suspected stroke (including those who present at a non-HASU Accident and Emergency department within 48 hours of stroke onset and in-hospital strokes) will be managed through admission to a hyper-acute stroke unit with ongoing care as appropriate in a local stroke unit. The only exception to this will be in cases where other conditions take precedence over stroke (see appendix six). A list of designated hyper-acute stroke units and stroke units in London can be found in appendix 1.

2.1 Hyper-acute stroke units

Hyper-acute stroke units (HASUs) are 24 hour centres providing high quality expertise in diagnosing, treating, and managing stroke patients. Patients with a suspected stroke are taken by the London Ambulance Service to the HASU that involves the shortest journey time (no more than 30 minutes away). On arrival a patient is assessed by a specialist, has access to a brain (CT) scan and receives clot-busting drugs (thrombolysis) if appropriate, all within 30 minutes. Patients are then admitted to a HASU bed where they receive hyper-acute care for up to the first 72 hours following admission.

Following a patient's hyper-acute stabilisation they are either:

- transferred to a stroke unit that is local to their home if they require further inpatient rehabilitation
- discharged home with stroke specific Early Supported Discharge (ESD) if they require intensive rehabilitation
- discharged home with follow up by a community team with neurorehabilitation skills if they require less intensive rehabilitation
- discharged home with no rehabilitation follow up

2.2 Stroke units

Stroke units (SUs) provide multi-therapy rehabilitation and ongoing medical supervision. The length of stay will vary and will last until the patient is well enough to be discharged from an acute inpatient setting. The stroke unit a patient should be taken to is determined by the London Stroke Look Up Table (see appendix 2), which assigns all London postcodes to a stroke unit. The intention of the London Stroke Look Up Table is to ensure patients are transferred to a stroke unit close to their home. This may be the stroke unit in the same hospital as the HASU. Following their stay in the stroke unit patients will be discharged home

with access to appropriate community services (as described for HASU) or discharged to a specialist inpatient facility.

2.3 Transient Ischaemic Attacks

Transient Ischaemic Attacks (TIA) are a medical emergency. More than 1 in 12 people who experience a TIA will have a stroke within a week. TIA services are therefore crucial in the prevention of more debilitating and long lasting stroke symptoms. High risk patients should have access to specialist assessment and treatment within 24 hours of first presentation to a healthcare professional. Low risk patients should be seen within seven days. A list of designated TIA services can be found in appendix 1.

2.4 Performance standards

Four sets of standards are used to determine the quality of service provision in HASUs and SUs. These are described in detail in appendices 3 and 4. The broad composition of the performance standards is described below.

Standard	Domain
A	Staffing, Infrastructure, Process
B, C, D	Further quality standards

2.5 Aligning demand to HASU capacity

The London Ambulance Service will transport all FAST ² positive patients to the nearest appropriate HASU. The appropriate HASU for a particular postcode may change depending on traffic conditions. Pan-London stroke protocols (see appendix 6) have been agreed and state that a HASU may not close to patients with expected acute stroke. London Ambulance Service staff are aware of those areas where patients would not necessarily go to their nearest HASU due to capacity issues. If, however, one or more HASUs are consistently

² FAST is the face, arms, speech test which is currently used by the London Ambulance Service to identify possible stroke patients.

more or less full than others, then a system similar to the emergency bed service would be used to help with load-balancing HASU capacity.

Patients with a suspected stroke may self-present at an A&E of a hospital that does not have a HASU. These patients should be transferred to the local HASU unless they are medically too unstable for transfer or stroke is not the primary diagnosis. The pan-London protocols cover the appropriate transfer of these patients (see appendix 6).

2.6 Pan-London stroke protocols

The protocols can be found in appendix 6 and cover the following operational areas:

- transfer from HASU to stroke unit
- stroke unit to community transfers
- transfer of mimics when diagnosis is not stroke
- managing strokes occurring in inpatients (including pre-operative stroke)
- managing possible stroke patients presenting at a non-stroke unit A&E/urgent care centre
- TIA referral pathways
- neuroradiology access 24 hours a day, seven days a week
- neurosurgery referrals
- vascular surgery

3. Commissioning HASU, stroke unit and TIA services

3.1 Tariff

A London stroke tariff has been set to ensure that each care setting receives fair remuneration. The tariff for the HASU stay operates on a bed days basis while the tariff for the stroke unit stay operates on a spell basis.

Technical information

Tariff	AA22Z (includes AA22A and AA22B)	AA23Z (includes AA23A and AA23B)
	Non-transient stroke or Cerebrovascular Accident, nervous system infections or encephalopathy	Haemorrhagic Cerebrovascular disorders
<u>HASU component</u>		
Day 1	£633	£633
Day 2 to 5	£380	£380
Post day 5	This should be priced at the standard excess bed day rate advised in the most recent payment by results (PbR) tariff workbook.	This should be priced at the standard excess bed day rate advised in the most recent PbR tariff workbook.
<u>SU component</u> (if patient from a HASU or presents at SU 72 hours after symptom onset)		
Price per spell	£5,850	£5,908
Price per < 2 day stay	£548	£587
Excess bed day cost	This should be priced at the standard excess bed day rate advised in the most recent PbR tariff workbook.	This should be priced at the standard excess bed day rate advised in the most recent PbR tariff workbook.

Note:

1) HRG AA22Z (which includes AA22A and AA22B) includes '....nervous system infections or Encephalopathy'. For the above tariffs to be used, one of the following ICD10 codes must also be present: I61, I63, I64. ICD code 162 is excluded.

2) The HASU tariffs include the patient transfer service uplift

Practical information

For units to continue to receive the tariffs described above they should demonstrate that they are meeting the standards outlined in appendices 3 and 4. An annual review can be used to determine compliance with the standards. Standards are rated using a traffic light system:

Green – Met standard.

Amber – Below standard but within tolerance. Recovery planning required.

Red – Below standard. Critical recovery planning required.

The reviews are likely to result in one of 3 possible outcomes:

1. Fully compliant – majority of standards are rated green with a maximum of 20% rated as amber.
2. Partially compliant - any standards rated red and up to 30% of standards rated amber. Failure to meet staffing levels should automatically be rated red. The CCG will need to negotiate a recovery plan with a specified timeframe for completion.
3. Not compliant – more than 40% of standards not fully met (rated as either red or amber). The CCG will need to negotiate a recovery plan with a specified timeframe for completion. May incur financial sanctions, which should be decided by the CCG.

3.2 Contracting rules – HASU and stroke unit

The importance of incentivising the appropriate system behaviours was taken into consideration when developing the tariff and contracting rules. The following table shows the risks that were identified and the mitigations that have been put in place.

Risk	Mitigation
HASU keeping patients for too long	<ul style="list-style-type: none"> The standard excess bed day rate applies to stays longer than five days. This does not incentivise stays. There are London wide protocols which set out expected practice.
Stroke units not accepting patients appropriately	<ul style="list-style-type: none"> To conform to designation rules, stroke units must accept patients who live in that stroke unit's defined catchment (stroke unit contracting rule three below). This is also part of the A2 standard.

	<ul style="list-style-type: none"> • There are London-wide protocols which set out expected practice. • Allowance for HASU trusts to access tariff penalty rate to cover the cost of delayed transfers (HASU contracting rule four, below). • The HASU has access to the estimated additional patient transport service funds, which will be put into the tariff (HASU contracting rule 11).
Ensure patients are in the correct setting as quickly as possible	<ul style="list-style-type: none"> • A1 and A2 standards • HASU contracting rule one

3.2.1 General contracting rules for stroke units

1. The London stroke unit tariff is only eligible for patients:

- In a unit that is formally designated as a stroke unit.
- Who have come from a HASU. Possible exceptions include in-hospital strokes where stroke is not the predominant medical issue, patients who present at a non-HASU Accident and Emergency department more than 48 hours after onset of symptoms, or patients who present at a non-HASU Accident and Emergency department within 48 hours of stroke but are not accepted by HASU. These should be infrequent occurrences.
- Who have had at least part of their stay in a stroke unit bed.
- Who are ultimately coded as a stroke (AA22A³, AA22B, AA23A, AA23B).

The London stroke tariff is used in place of, rather than in addition to, the National stroke best practice tariff. Providers charging for the London stroke tariff cannot claim the national tariff as well.

2. The London stroke unit tariff will cover patients transferred from a HASU to a stroke unit, where further stroke unit treatment is required.

3. A table has been produced that assigns all London postcodes to the 24 stroke units. Stroke units are expected to accept all patients referred from a HASU unit according to this table. (Details of the catchment areas used in the stroke unit look up table can be found in appendix 2).

³ HRG AA22Z (which includes AA22A and AA22B) is broader than the HRG v3.5 codes it replaced and includes '...Nervous system infections or Encephalopathy'. To make it more specific to stroke, one of the following ICD10 codes must also be present: I61, I63, I64

4. This activity will be charged in spells based on HRG4.
5. A less than two day tariff applies for short stays in stroke units.
6. The trim-points will be unchanged and stays that are over the trim-points will be priced at the standard excess bed day rate advised in the most recent PbR tariff workbook.
7. There is no price difference between elective and emergency activity.
8. The tariff calculated excludes market forces factor. This is applied at the local rate.
9. Outpatient attendances (i.e. following admission and discharge) are charged as per current arrangements.
10. Any intensive care / critical care unit costs to be charged as per current arrangements (critical care / intensive care unit stay is not included in the London stroke tariff).
11. Any established arrangements that a stroke unit may have with CCGs to undertake non-acute rehabilitation and be paid for separately are not affected.

3.2.2 General contracting rules for HASUs

1. The London HASU tariff is only eligible for patients:
 - a. in a formally designated HASU bed
 - b. who start their HASU stay within four hours of being brought to the HASU hospital
 - c. who are ultimately coded as a stroke (AA22A, AA22B, AA23A, AA23B)
2. HASUs are expected to take all patients with suspected stroke and may not close to any suspected stroke that is within 48 hours of symptom onset.
3. The price is calculated on a bed day basis. There is a different price for day one compared with day two to four, which have the same price, and post day four, which will be priced at the standard excess day bed rate. The same charges will apply to all types of stroke.
4. FAST positive patients who turn out not to have strokes (mimics) will not be paid at the London HASU tariff. An uplift on the stroke tariff has been included to allow for a proportion

of mimics (one-third of the estimated 15% mimic rate) needing the full work-up (based on day one HASU prices). Rather than charge this as an uplift, this has been incorporated into the stroke spell price.

5. Stroke units must accept a patient from a HASU for which they are the defined stroke unit as per the London Stroke Look Up Table. HASUs have the authority to repatriate patients to the relevant stroke unit and are expected to follow the agreed protocol when doing so. If a patient transfer is delayed in excess of 24 hours after the agreed transfer time by a stroke unit, a HASU can:

- a. keep the patient in the HASU
- b. transfer the patient to the stroke unit in the same trust as the HASU
- c. seek an alternative stroke unit for the patient's post hyper-acute stay

6. HASUs are expected to repatriate patients to the relevant stroke unit (as per the London Stroke Look Up Table) unless there are delays, as noted in rule four.

7. Thrombolysis will be charged additionally at drug cost only rates.

8. The cost of diagnostics has been built into the bed day price.

9. Unlike the national tariff, there is no price difference between elective and emergency activity.

10. The tariff calculated excludes market forces factor. This is applied at the local rate.

11. Any intensive care / critical care unit costs to be charged as per current arrangements (critical care / intensive care unit stay is not included in the London stroke tariff).

12. The additional patient transport service costs of moving patients to stroke units have been estimated and this amount has been built into the London HASU tariff.

3.3 London Stroke Look Up Table

The London Stroke Look Up Table maps London postcodes to the appropriate stroke unit. The contracting rules state that SUs will be obliged to take patients in their catchment and HASUs must repatriate patients to the correct stroke unit as determined by the London Stroke Look Up Table.

The catchments are illustrated on the map at appendix 2.

The London Stroke Look Up Table is hosted by the Royal College of Physicians.

3.4 Consideration of patient choice

Following the hyper-acute phase, patients will be transferred from a HASU to a stroke unit closer to their home, if the stroke unit linked to the HASU is not their local unit.

The legal definition of patient choice does not apply to the acute part of the new stroke pathway as it is not an elective event. Patients may, however, express a preference for which stroke unit they would like to be transferred to, for example one close to relatives rather than their own home, and this will be considered. If a patient expresses a preference for a stroke unit whose catchment they do not normally fall into, the preferred stroke unit will decide whether to accept the patient.

4. TIA services

All stroke units should provide a TIA service for both high and low risk patients. This should allow patients to access specialist assessment and treatment within specified time frames.

The following contracting rules have been developed:

Inpatient

1. The existing PbR (emergency) tariff and rules apply to HASU or stroke unit admissions that are subsequently coded as TIA (AA29Z – which includes AA29A and AA29B).
2. For patients transferred to a stroke unit, who are ultimately coded as TIA, the tariff applicable to the stroke unit is the full PbR tariff less the PbR short stay adjustment (i.e. 65%).

Outpatient

1. Adopt a package price of £548 for attendance at an ambulatory TIA service. This price covers first attendance and diagnostics (Doppler, CT, Echo and ECG), with follow-ups to be charged additionally.
2. Package price only applies on first attendance at a TIA service.

4.1 TIA service standards

There are three TIA service standards which are included in the annual review (see section 5). These are not measured by the Stroke Sentinel National Audit Programme (SSNAP) so compliance needs to be demonstrated through local audit.

5. Data collection

All stroke providers should be contributing to the Stroke Sentinel National Audit Programme (SSNAP). The majority of the standards in appendices 3, 4 and 5 can be evidenced from SSNAP. The exceptions are noted in the standards documents and the expected sources of evidence are specified.

Appendix 1: Designated stroke services in London

1.1 Hyper-acute stroke units (HASUs)

The following eight HASUs were designated:

- ☐ Charing Cross Hospital, Hammersmith
- ☐ King's College Hospital, Denmark Hill
- ☐ Northwick Park Hospital, Harrow
- ☐ Queen's Hospital, Romford
- ☐ St George's Hospital, Tooting
- ☐ The Princess Royal University Hospital (PRUH), Orpington
- ☐ The Royal London Hospital, Whitechapel
- ☐ University College Hospital, London

1.2 Stroke units

Twenty-four stroke units were designated:

- ☐ Barnet Hospital, Barnet
- ☐ Charing Cross Hospital, Hammersmith
- ☐ Chelsea and Westminster Hospital, Fulham
- ☐ Homerton University Hospital, Hackney
- ☐ King's College Hospital, Denmark Hill
- ☐ Kingston Hospital, Kingston upon Thames
- ☐ Mayday University Hospital, Croydon
- ☐ Newham General Hospital, Newham
- ☐ National Hospital for Neurology & Neurosurgery (part of UCH), Bloomsbury
- ☐ North Middlesex Hospital, Edmonton
- ☐ Northwick Park Hospital, Harrow
- ☐ Queen's Hospital, Romford
- ☐ St George's Hospital, Tooting
- ☐ St Helier Hospital, Carshalton
- ☐ St Mary's Hospital, Paddington
- ☐ St Thomas' Hospital, Waterloo
- ☐ The Hillingdon Hospital, Uxbridge
- ☐ The Princess Royal University Hospital, Orpington
- ☐ The Royal Free Hospital, Hampstead

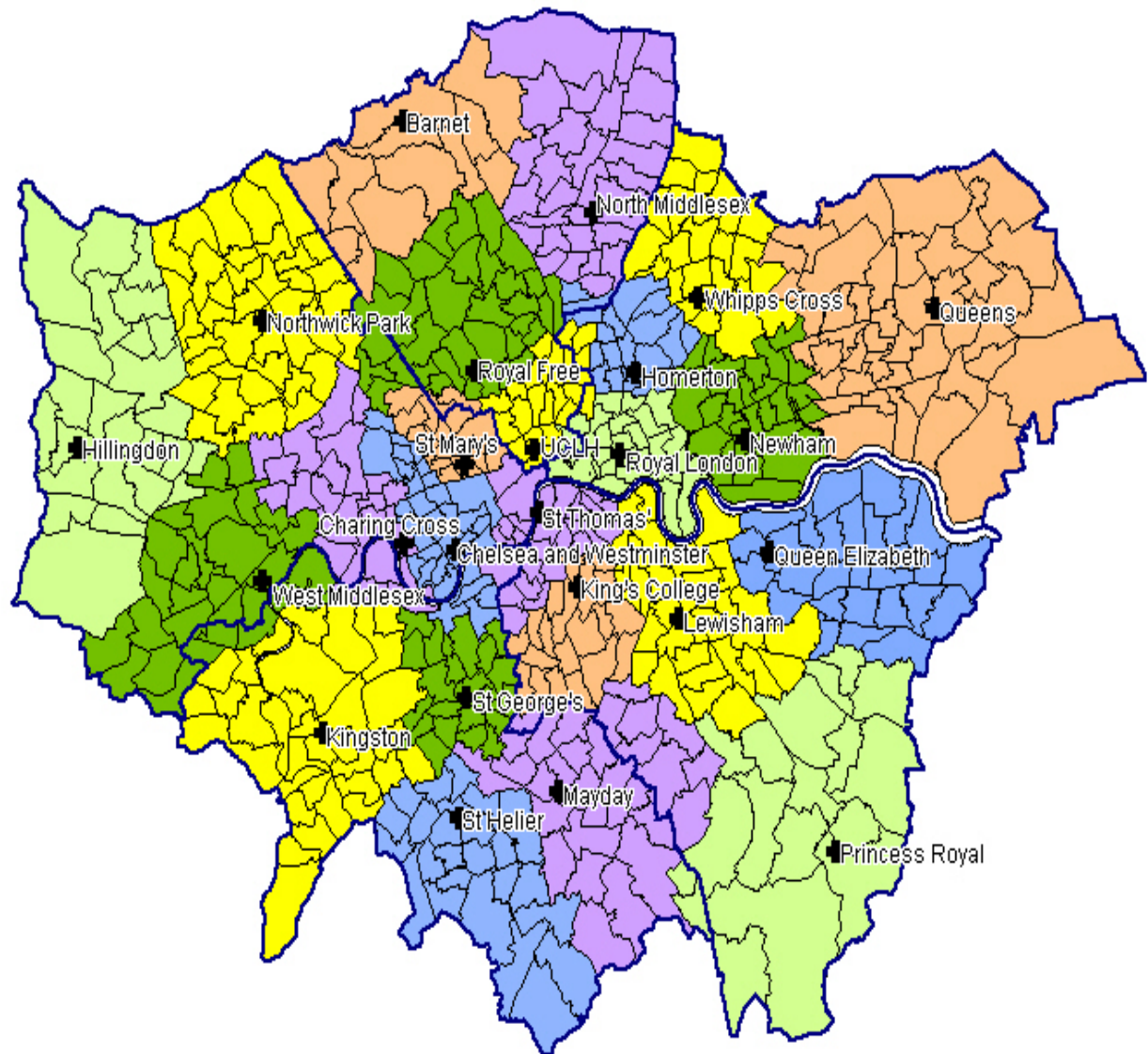
- ☐ The Royal London Hospital, Whitechapel
- ☐ University Hospital Lewisham, Lewisham (covers Lewisham, Greenwich and Bexley –
Now also includes the SU bed base that was previously located at Queen Elizabeth Hospital,
Woolwich)
- ☐ West Middlesex Hospital, Isleworth
- ☐ Whipps Cross University Hospital, Leytonstone

1.3 TIA services

Twenty-four TIA services were designated:

- ☐ Barnet Hospital, Barnet
- ☐ Chelsea and Westminster Hospital, Fulham
- ☐ Charing Cross Hospital, Hammersmith
- ☐ Homerton University Hospital, Hackney
- ☐ King's College Hospital, Denmark Hill
- ☐ Kingston Hospital, Kingston upon Thames
- ☐ Mayday University Hospital, Croydon
- ☐ University College Hospital, Euston
- ☐ Newham General Hospital, Newham
- ☐ North Middlesex Hospital, Edmonton
- ☐ Northwick Park Hospital, Harrow
- ☐ Queen Elizabeth Hospital, Woolwich
- ☐ Queen's Hospital, Romford
- ☐ St George's Hospital, Tooting
- ☐ St Helier Hospital, Carshalton
- ☐ St Mary's Hospital, Paddington
- ☐ St Thomas' Hospital, Waterloo
- ☐ The Hillingdon Hospital, Uxbridge
- ☐ The Princess Royal University Hospital, Orpington
- ☐ The Royal Free Hospital, Hampstead
- ☐ The Royal London Hospital, Whitechapel
- ☐ University Hospital Lewisham, Lewisham
- ☐ West Middlesex Hospital, Isleworth
- ☐ Whipps Cross University Hospital, Leytonstone.

Appendix 2: Stroke unit catchments and London sector boundaries



Appendix 3: Performance standards for HASU

HASU Criteria	A1 STANDARDS	Measurement	RAG rating	Additional notes
STAFF				
16	Provision of 0.73 WTE Physiotherapist/5 beds	Calculation provided by Trust. Should include appropriate evidence (eg budget statements, staff lists, staff roster) to demonstrate that staff genuinely work on the SU. Unqualified staff can be included as part of the therapy staffing provision. However, the expected ratio of qualified to unqualified staff is 2:1.		Staff rotas
17	Provision of 0.68 WTE Occupational Therapist/5 beds			Staff rotas
18	Provision of 0.68 WTE SALT/10 beds			Staff rotas
24	Provision of 24/7 nursing workforce to provide: 2.9 WTE nurses / bed 80:20 trained to untrained skill mix	Calculation provided by Trust. Should include appropriate evidence (eg budget statements, staff lists, staff roster) to demonstrate that staff genuinely work on the SU.		Staff rotas
INFRASTRUCTURE (exception reported only)				
2	A radiology service responsible for provision of the following (24/7): <ul style="list-style-type: none"> CT scanning for suspected stroke patients CT reporting by radiology or stroke consultant A contingency plan to ensure continuity of provision of CT scans 	Provide evidence that these services exist		Discussion
4	24/7 availability of appropriately trained staff in eligibility assessment and administering thrombolysis treatment	Provide evidence, eg staff rotas		Rota
9	24/7 availability of appropriately trained staff in assessment of suspected stroke patients who are ineligible for thrombolysis treatment	Provide evidence, eg staff rotas		Rota
20	Arrangements for timely repatriation to appropriate local or co-located SU	Review the arrangements		The HASU will need to record the Trust responsible for the delay and the number of days delayed.

22	Consultant led HASU team	Provide management structure and name of lead consultant	Rota
23	Provision of 24/7 consultant cover provided by at least 6 BASP thrombolysis trained consultants on a rota able to make thrombolysis and hyper acute treatment decisions	Provide evidence, eg job plans	Rota
28	Evidence of management plan for access to neurosurgery, interventional neuroradiology and vascular surgery for appropriate patients	Review the arrangements	Discussion

HASU Criteria	A2 STANDARDS	Measurement	RAG rating	Additional notes
7	90 % of patients eligible for thrombolysis according to RCP SSNAP minimum threshold criteria to receive the intervention	Green 90%, <75%=Red		SSNAP Item reference H16.55
8	100% of appropriate patients scanned within 12 hrs of clock start	Green 100%, <90%=Red		SSNAP Item reference H6.12
10	95 % of all appropriate stroke patients to be admitted to stroke unit as first ward of admission	Green 95%, <75%=Red		SSNAP Item reference H7.11
11	95 % of applicable patients to receive swallow screening within 4 hours of clock start	Green 95%; <85%=Red		SSNAP Item reference H14.20
13	95 % of applicable patients to receive physiotherapist assessment within 72 hrs of clock start	Green 95%, <85%=Red		SSNAP Item reference H11.24

HASU Criteria	B STANDARDS	Measurement	RAG rating	Additional notes
6	90% of stroke patients eligible for thrombolysis to receive thrombolysis treatment within 45 minutes of entry to A&E (door to needle time)	Green 90%, <80%=Red		SSNAP Can be calculated from time of clock start and time of thrombolysis
12a	95% of appropriate stroke patients to receive nutritional screening by discharge	Green 95%, <80%=Red		SSNAP Item reference K3.3
12b	80% of patients identified as high risk of malnutrition to be seen by dietician	Green 80%, <65%=Red		SSNAP Item reference K3.9
15	100% of stroke patients assessed by stroke specialist consultant physician within 24 hours of clock start	Green 100%, <85% =Red		SSNAP Item reference H9.3

HASU Criteria	C & D STANDARDS	Measurement	RAG rating	Additional notes
6	50% of stroke patients eligible for thrombolysis to receive thrombolysis treatment within 30 minutes of entry to A&E (door to needle time)	Green 50%, <30%=Red		SSNAP Can be calculated from time of clock start and time of thrombolysis
31	Patient and carer involvement in development of stroke services	Provide evidence that this is happening, eg focus groups, patient satisfaction surveys, discovery interviews		Discussion
33	Evidence of timely implementation of service delivery improvements e.g. new guidance, compliance improvements	Provide evidence that this is happening		Discussion
35	Demonstration of participation in stroke related research, as a key part of HASU services	Provide evidence that this is happening eg, lists of trials / research projects		Discussion
25	Recruitment plan for vacant positions and success in filling vacant positions	Evidence of a recruitment strategy. Discuss vacancy rate		Discussion and rotas
26	Plan for rotation of posts across the professional groups along the patient pathway	Provide evidence that this is happening. This should cover junior doctors, therapists and nurses		Discussion and rotas

Appendix 4: Performance standards for SU

Criteria	A1 Standards	Measurement	RAG rating	Data source
	STAFF			
11	Provision of 0.84 WTE physiotherapist/5 beds	Calculation provided by Trust. Should include appropriate evidence (eg budget statements, staff lists, staff roster) to demonstrate that staff genuinely work on the SU. Unqualified staff can be included as part of the therapy staffing provision. However, the expected ratio of qualified to unqualified staff is 2:1.		Staff rotas
12	Provision of 0.81 WTE OT/5 beds			Staff rotas
13	Provision of 0.81 SALT/10 beds			Staff rotas
23	Provision of 24/7 nursing workforce to provide: 1.35 WTE nurses/bed, 65:35 trained to untrained skill mix	Calculation provided by Trust. Should include appropriate evidence (eg budget statements, staff lists, staff roster) to demonstrate that staff genuinely work on the SU.		Staff rotas
	INFRASTRUCTURE			
8	Evidence of a protocol to initiate suitable secondary prevention measures in all appropriate patients			Discussion & written protocol
9	A radiology service responsible for provision of the following: CT scanning and reporting, MRI scanning, ultrasonic angiography			Discussion
16	Availability of rehab facilities ie access to physio gym, OT kitchen, SALT equipment			Discussion & walk round

18	Demonstration of agreed referral pathways from SU to community rehab providers			Discussion and documented pathway
21	Sharing of information between SU and GP and rehab provider (if applicable)			Discussion & presentation of template letters
22	Consultant led SU team; minimum of 5 consultant or equivalent ward rounds per week; dedicated junior medical team trained in stroke management			Discussion

Criteria	A2 Standards	Measurement	RAG rating	Additional evidence/Comments
1	Timely admission of patients from HASU: 90% of patients repatriated within 24 hours	Timely is defined as within 24 hrs of confirmation that a patient has a discharge date and time, patient should be admitted to an SU (within 24 hrs of confirmed discharge date and time) Data collected by the HASU should include: a) Delaying SU b) Time from referral sent to actual transfer Green ≥90%, below 65% Red		Local audits
2	If applicable at least 90% of patients' stay at this team is spent on a stroke unit at this team	Green 90%, <75% Red		SSNAP Item reference K32.11

4	<p>i) SSNAP scoring summary for PT – team centred key indicators</p> <p>ii) If applicable PT assessment by discharge from in-patient care</p> <p>iii) If applicable, patients receiving the equivalent of at least 45 minutes, 5 days a week (at this team) of PT</p>	<p>Green= score of C or above in SSNAP scoring summary – team centred key indicators</p> <p>Red= score of E in SSNAP scoring summary – team centred key indicators</p>		<p>SSNAP</p> <p>ii) Item reference K16.6</p> <p>iii) Item reference K35.18</p>
5	<p>i) SSNAP scoring summary for OT – team centred key indicators</p> <p>ii) If applicable OT assessment by discharge from in-patient care</p> <p>iii) If applicable, patients receiving the equivalent of at least 45 minutes, 5 days a week (at this team) of OT</p>	<p>Green= score of C or above in key indicators</p> <p>Red= score of E or below in key indicators</p>		<p>SSNAP</p> <p>ii) Item reference K15.6</p> <p>iii) Item reference K34.18</p>
	<p>i) SSNAP scoring summary for SALT – team centred key indicators</p> <p>ii) If applicable SALT assessment by discharge from in-patient care</p> <p>iii) If applicable, patients receiving the equivalent of at least 45 minutes, 5 days a week (at this team) of SALT</p>	<p>Green= score of C or above in key indicators</p> <p>Red= score of E or below in key indicators</p>		<p>SSNAP</p> <p>ii) Item reference K17.6</p> <p>iii) Item reference K36.18</p>
6a	100% of appropriate stroke patients to have received nutritional screening by discharge from in-patient care	Green 100%, <75% Red		<p>SSNAP</p> <p>Item reference K3.3</p>
6b	80% of patients identified as high risk of malnutrition to be seen by dietician	Green 80%, <65%=Red		<p>SSNAP</p> <p>Item reference K3.9</p>

10	90% of all patients to have their mood screened by time of discharge from inpatient care	Green 90%, <75% Red		SSNAP Item reference K12.3
35	Provision of, and attendance at, MDT stroke training programmes	Provide evidence that they are taking place and numbers of attendees, eg agendas, feedback sheets from MDT, training attendance records etc.		Trust to provide written evidence

Criteria	B Standards	Measurement	RAG rating	Additional Comments
15	Availability of supporting services e.g. orthotics, podiatry, orthoptics, dietetics	Demonstrate that these exist e.g. evidence of referral pathway and paperwork and patient notes		Discussion and written evidence
19	Arrangements for discharge of patient from SU with appropriate support	Evidence of protocol and provision of discharge plan for 100% of patients JCP: Green 85%, <75%=Red		Discussion and written evidence
20	Plan for management of average length of stay (LOS)	Evidence of active monitoring of LOS, investigation into long LOS, active reduction of LOS plans, evidence that discharge plans are created early on in a patients stay		Discussion
24	Recruitment plan for vacant positions and success in filling vacant positions	Evidence of stroke recruitment strategy and vacancy rates		Discussion and evidence from rotas of numbers of staff in post
27	Provision of a named contact on discharge for each patient	Provide evidence that this is happening		Discussion and written evidence

30	Demonstration of a stroke management group to oversee service delivery and improvement	Provide evidence that this is happening – agenda/minutes, reasonable frequency		Discussion and written evidence
34	Provision of structured training plan for new and rotational staff to ensure a competent understanding of the stroke pathway and compliance to standards	Provide evidence of a stroke specific induction program		Discussion and written evidence

Criteria	C and D Standards	Measurement	RAG rating	Additional notes
28	Process for obtaining and incorporating patient feedback into SU service development	Provide evidence that this is happening, e.g. focus groups, patient satisfaction surveys, interviews		Discussion and written evidence
29	Patient and carer involvement in development of stroke services	Provide evidence that this is happening, e.g. stroke forum regularly attended by clinical management		Discussion and written evidence
31	Evidence of timely implementation of service delivery improvements e.g. new guidance, performance standard compliance improvements	Provide evidence that this is happening		Discussion and written evidence
33	Demonstration of participation in stroke related research, as a key part of SU services	Provide evidence that this is happening, e.g. lists of trials / research projects		Discussion and written evidence

Appendix 5: Performance standards for TIA

Criteria	Standards	Measurement	RAG rating	Additional notes
5	90% of high risk TIA patients to receive a specialist assessment and treatment within 24 hours of first presentation to a healthcare professional	TIA pathway to cover both high and low risk treatment arms Evidence of compliance against performance standard e.g. local audit		Local audit
7	90% of low risk TIA patients to receive a specialist assessment and treatment within 7 days of first presentation to a healthcare professional	Green > 90%, red < 60%		Local audit
11	90% of appropriate TIA patients with symptomatic carotid stenosis to undergo CEA within 14 days of first presentation to a healthcare professional	Evidence of compliance with agreed network pathway e.g. local audit		Vascular database

Appendix 6: Pan London stroke protocols

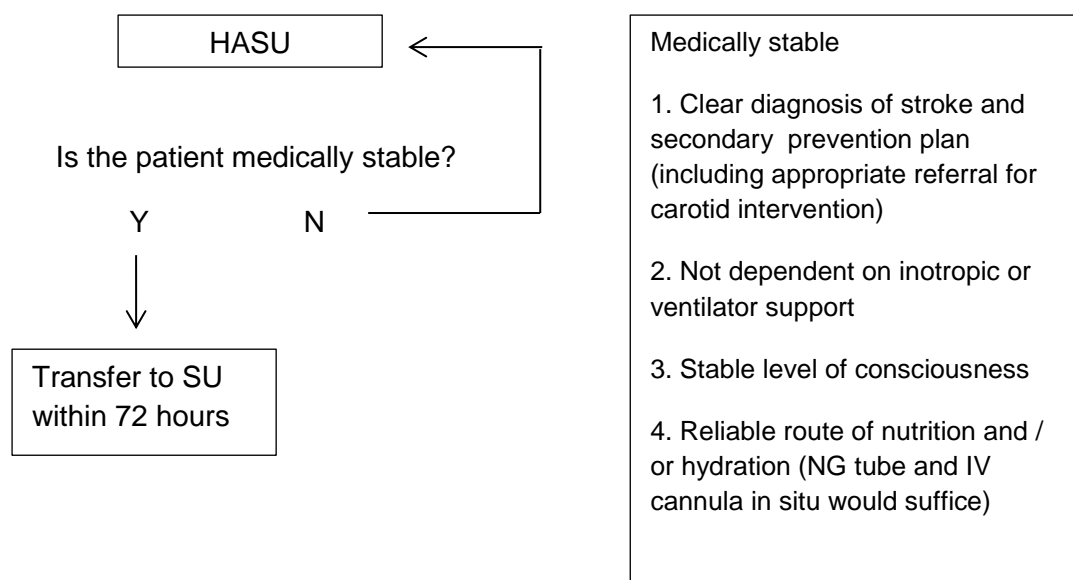
6.1 Protocol for transfer from HASU to SU

All medically fit patients should be repatriated to a stroke unit (SU) within 72 hours or earlier, as appropriate. The agreed criteria which define “medically unstable” are stated below. The London Stroke Look Up Table provides information on the appropriate SU.

All HASUs should have an electronic directory of contact details for the lead person from each HASU. This should be the first point of contact for intra- and inter-network transfer.

There should be clinician-to-clinician communication to agree the transfer. An electronic discharge summary should be sent and access to scans provided.

Guidelines for protocol for HASU to SU transfer



6.2 Protocols for SU to community transfers

Local arrangements must be in place.

Length of stay within the stroke unit will vary depending on patient need. Patients will be transferred, as appropriate, to:

- early supported discharge team
- bed-based post-acute rehabilitation
- non bed-based community stroke rehabilitation
- home if the patient is at pre-stroke level of function or can be managed by family/ social services care workers

All networks will have a portfolio of such services, although the configuration will be locally determined.

For a small proportion of patients requiring institutionalised care home placement, other post-acute care transfer arrangements may be available.

6.3 Protocol for transfer of mimics when diagnosis is not stroke

This is for patients who are FAST positive and meet the threshold for HASU admission but turn out not be acute strokes (predicted 23% of cases).

Stroke mimics should be repatriated to the most appropriate setting within 24 hours of a non-stroke diagnosis being made. This could be to the medical assessment unit (MAU) in the HASU centre, MAU in the patient's local hospital or to an SU (if appropriate).

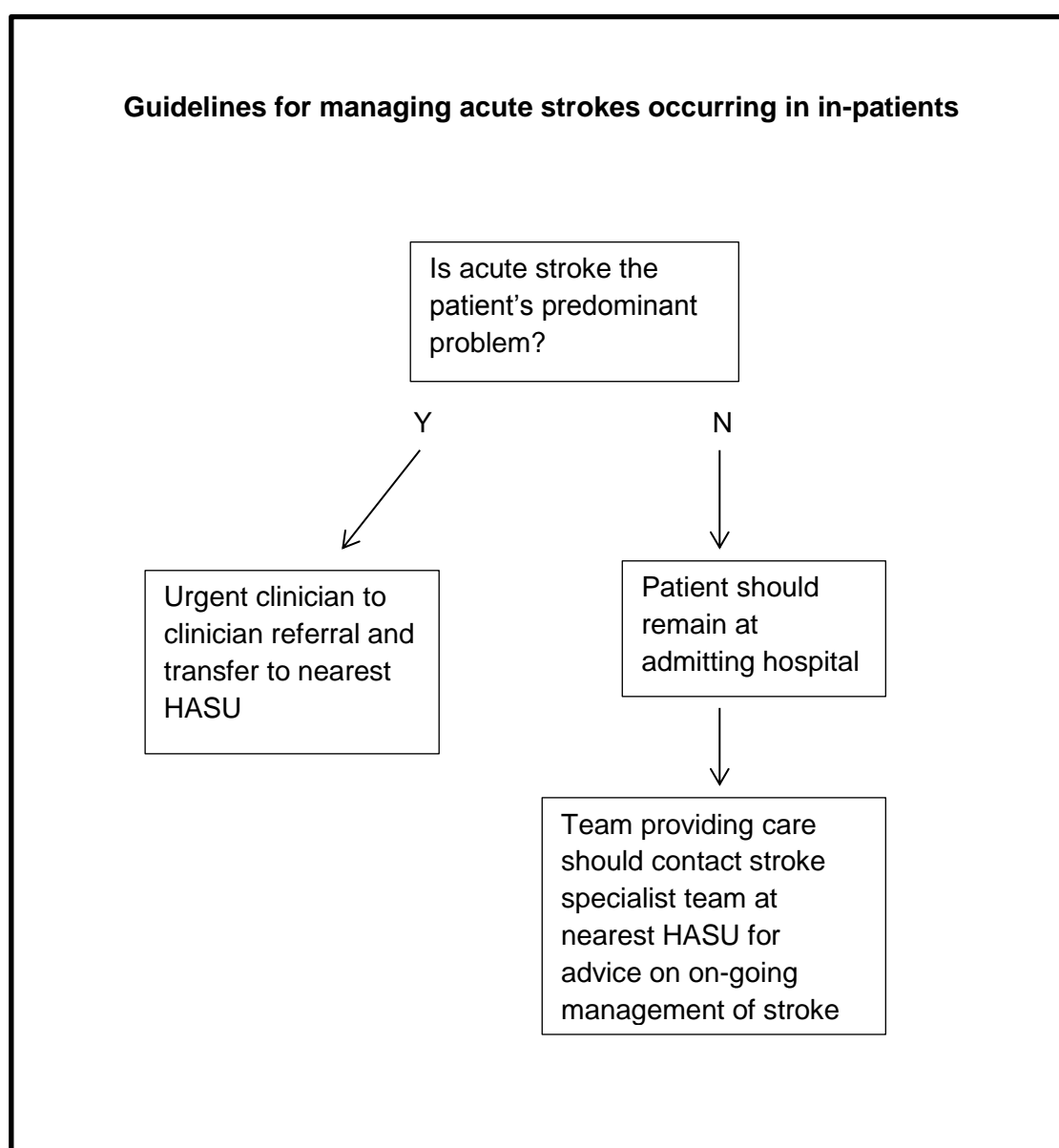
If non-stroke patients are fit for discharge, the HASU should endeavour to do so wherever possible.

Such arrangements may also be applicable to patients who have been admitted to a HASU with transient ischaemic attack (TIA) but cannot be easily discharged due to other medical or social care issues.

6.4 Protocol for managing acute strokes occurring in in-patients

All acute strokes occurring in inpatients should be managed via one of two possible pathways dependent on the predominant medical needs of the patient:

- 1) if stroke is the predominant problem the patient should be transferred to the nearest HASU
- 2) if the patient has other more dominant medical or surgical problems they should remain at the admitting hospital and the team providing their care should seek advice from clinicians at the local HASU.



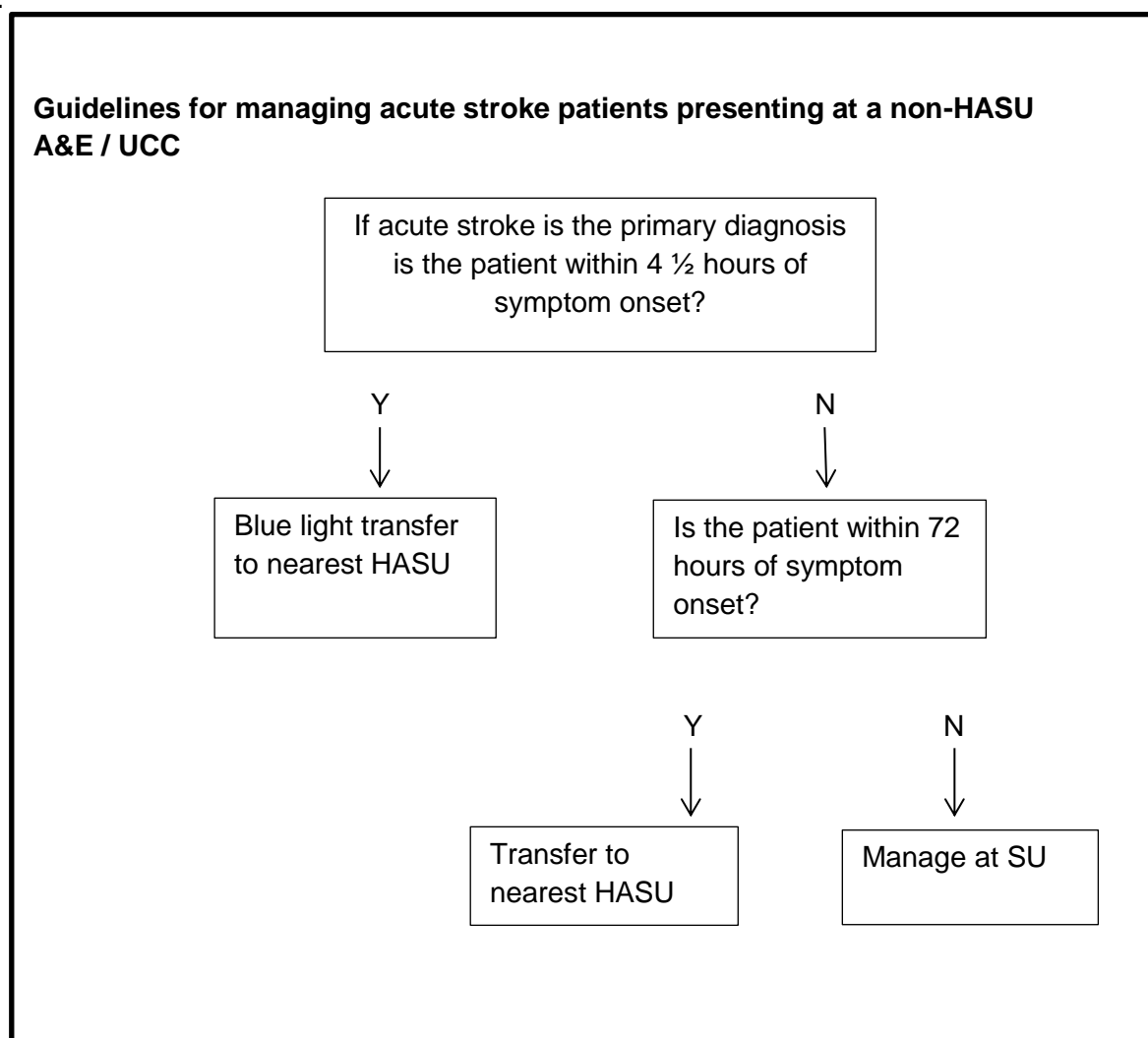
6.5 Protocol for managing acute stroke patients presenting at a non-HASU A&E/Urgent Care Centre (UCC)

The underlying principle is that **all** patients with an acute stroke must be admitted to a HASU.

Patients with a suspected stroke should be reviewed by A&E / UCC staff for a diagnosis. If the primary diagnosis is acute stroke, the options are as follows:

- 1) The patient should be blue lighted to the nearest HASU if they are within the time window for thrombolysis (within 4 ½ hours of symptom onset).
- 2) The patient should be transferred to the nearest HASU if they are outside of the thrombolysis time window but are within 72 hours of symptom onset.

The patient should be sent with the information / assessment findings from the A&E / UCCs (brain scans, etc. to be completed at the HASU).



6.6 Protocol for TIA referral pathways

Local arrangements should be in place.

There is currently insufficient evidence to recommend admitting high risk patients to HASU or SU.

6.7 Protocol for 24/7 neuroradiology access

Local arrangements should be in place but inter-network solutions should be considered where neuroradiology resource is limited.

6.8 Protocol for vascular surgery

Carotid endarterectomies should take place as soon as possible (no more than two weeks wait). There should be local arrangements to decide where patients have this procedure, including transfer arrangements.

6.9 Protocol for neurosurgery referrals

Subarachnoid haemorrhage is outside the scope of this protocol.

Local arrangements should be in place on a network level.

If HASUs do not have a co-located neurosciences centre, these HASUs should either refer directly to an external neurosciences centre or to the nearest HASU with a co-located neurosciences centre.

Guidelines for protocol for neurosurgery referrals

Patient in HASU requires neurosurgery referral:

