Kent Cardiovascular Network

SURREY HEART & STROKE NETWORK

Sussex Stroke Network

NHS South East Coast Integrated Stroke Care Pathway Service Specification

Executive Summary

The NHS South East Coast Integrated Stroke Care Pathway Service Specification is a patient pathway for Stroke care that seeks to underpin an effective whole system approach for primary care prevention, rapid assessment, brain imaging, treatment and seamless transfer to local stroke services, rehabilitation and longer term ongoing support.

Primarily this is a document for commissioners and those involved in designing patient pathways to develop services locally that meet the necessary national standards of stroke care from the onset of symptoms to the eventual discharge of patients into further long term care and support as necessary.

This document will also allow providers to benchmark their current services against the agreed criteria, improve and develop their services in line with the national standards. The Service Specification will enable providers to work together as an inter-disciplinary stroke network across South East Coast in order to fully integrate stroke care and provide seamless transition of care between providers.

The Specification aims to ensure equality of care and access to services to patients regardless of their geographical location.

Input from Think Tanks such as the King's Fund and the Nuffield Trust has contributed significantly to the listening exercise and continues to fuel the national debate around the development of service integration and the importance of collaboration between different providers and different agencies.

This aspiration service specification has the full support and endorsement from David Hargroves, South East Coast Clinical Lead for Stroke.

Contents:

Service	**NHS South East Coast Joint Integrated stroke Care Pathway Service Specification**
Commissioner Lead	
Provider Lead	
Period	**2012-2013**
Review Date	**March 2013**

1. Purpose

1.1 Aims

This Service Specification sets out the criteria that different parts of an integrated Stroke Care pathway need to meet to deliver high quality care to patients. These are the expected standards that commissioners should adopt when commissioning stroke care services.

This Service Specification has been developed by members of the South East Coast and Stroke Networks in consultation with stakeholders, including clinical staff working in stroke and other related services and commissioners. The document aims to build on clinical best practice and to provide clarity on whole system requirements for stroke services without prescribing the service model to be adopted locally.

1.2 Evidence Base

This specification is based on extensive research evidence, including systematic reviews, to support the effective management of patients with acute stroke with respect to reducing mortality and morbidity. This evidence base includes:

- National Clinical Guideline for Stroke, Royal College of Physicians (2008)
- Stroke Service Standards, British Association of Stroke Physicians
- National Institute for Clinical Excellence Quality Standards Programme: Stroke (2010)
- NICE clinical guideline CG68
- National Stroke Strategy, Department of Health (2007)
- National Sentinel Audit of Stroke
- Unbundling the stroke tariff draft guidance (November, 2010)
- Accelerating Stroke Improvement Markers, Department of Health (2010)
- PbR best practice draft guidance, Department of Health (December 2010)
- Implementing the National Stroke Strategy – an imaging guide (2008)
- CLAHRC (Nottinghamshire, Derbyshire and Lincolnshire) (2010) Stroke Early Supported Discharge Consensus Activity
- Patient and carer feedback from patient experience surveys

The importance of strengthening the commissioning of services, improving integration of services focusing on outcomes, and focusing on improving patient experience were all reflected in the 2012/2013 NHS Outcomes Framework and NHS Operating Framework.

1.3 General Overview

The National Stroke Strategy, published in 2007 by the Department of Health, collated the key evidence and outlined what was needed to be achieved to create effective stroke services in England. The strategy identified major stages in the stroke patient's pathway and established quality markers that need to be undertaken to create effective stroke services. The strategy recognised the potential benefits for all patients if effective early treatment with fast rapid access to acute and rehabilitation stroke specialist services was provided.

"Time is brain" and the first 72 hours of care is vital to ensure the optimum clinical outcome. This needs to be underpinned by an effective whole system pathway for assessment,

discharge and repatriation to local stroke services, subsequent onward care and longer term support.

An integrated approach to providing services is fundamental to the delivery of high-quality care to patients with stroke[1]. It may be that some aspects of the pathway are not provided by the same provider and therefore, whilst some units may be combined, it is possible (and acceptable) for units to be separate.

1.4 Objectives

The objectives are to:

- Provide access to a fully integrated stroke service for all stroke patients
- Implement the recommendations of the National Stroke Strategy
- Ensure compliance with Royal College of Physicians and NICE guidelines
- Ensure that services provide an excellent patient experience, including improved access, clinical outcomes and reduced mortality and disability
- Ensure equity across the South East Coast

1.5 Expected Outcomes

Any patient presenting with stroke will be placed on either the Hyper-Acute or Acute pathway, to receive the most appropriate care for their condition. The implementation of these pathways will not only provide the best possible outcomes for the patients, but allow the NHS in South East Coast to use resources effectively within the health economy. The specific key performance and quality indicators are listed in Section 7, but the general expected outcomes are:

- To improve the outcomes for stroke patients by reducing mortality and levels of dependency following an acute stroke
- To reduce the length of stay of stroke patients in bed based services
- To improve patients' experience and to enhance their recovery following a stroke
- To reduce readmission rates for stroke patients
- To improve patient access and experience of specialist stroke care
- To provide services based on an accepted international and national evidence base
- To provide services which are sustainable and value for money

[1] National Institute for Health and Clinical Excellent – Stroke Quality Standards

2. Service Scope

2.1 Service Description

This document is structured according to the Stroke Pathway phases below. In addition, expectations that apply across the whole pathway including; patient experience, engagement and communications, data transfers and information sharing, data collection, monitoring and Psychological Support are described later in the document under **Service Delivery**.

2.1.1 Prevention of Stroke in Primary Care

2.1.2 Pre-Admission, Ambulance Acute Stroke *'Fastrack'* Pathway

Acute Phase

2.1.3 Management of Transient Ischaemic Attack
2.1.4 Hyper Acute Stroke Unit (HASU)
2.1.5 Stroke Thrombolysis
2.1.6 Acute Stroke Unit (ASU)
2.1.7 Rehabilitation Stroke Unit (RSU)

Community Rehabilitation Phase

2.1.8 Early Supported Discharge
2.1.9 Specialist Community Stroke Rehabilitation
2.1.10 Community Stroke Survivor Support Services
2.1.11 Patient Reviews

2.1.1 Prevention of Stroke in Primary Care

Atrial Fibrillation (AF)

It is the responsibility of General Practitioners and others in the Primary Care setting to follow the NICE guidance for prevention of Stroke and TIA and is set against the National Stroke Strategy Quality Marker 2. The following guidelines apply:

NICE Recommendations to QOF effective from April 2012

NICE 2006 AF Guidelines

Atrial fibrillation (AF) is a major predisposing factor to stroke, with 16,000 strokes annually in patients with AF, of which approximately 12,500 are thought to be directly attributable to AF. The annual risk of stroke is five to six times greater in AF patients than in people with normal heart rhythm. Atrial fibrillation is currently under recognised and under treated.

The South East Coast prevalence of AF on average is 1.87%
(National prevalence of AF is 1.78%. Kent 1.70%. Surrey 1.78%. Sussex 2.14%)

Those with undiagnosed AF can receive treatment sooner if opportunistic case finding is undertaken using manual pulse palpation in those presenting with symptoms commonly associated with AF. It is therefore considered good practice to check the blood pressure and pulse (manually) in ALL patients who present with breathlessness, dyspnoea, palpitations, syncope/dizziness or chest discomfort.

Manual pulse palpation should be performed to assess for the presence of an irregular pulse that may indicate underlying AF.

GPs are encouraged to identify their own strategies for opportunistic pulse checking where the individual patient may be considered at potential risk of AF. For example AF incidence rises with obesity (for every 1% rise in BMI, 4% increase in AF risk) and other factors such as diabetes.

The NICE 2006 AF Guidelines recommends that GPs:

- Perform manual pulse palpation to assess for an irregular pulse indicating underlying AF in patients who present with breathlessness or dyspnoea, palpitations, syncope or dizziness, chest discomfort, or stroke/transient ischaemic attack (TIA).
- Perform an ECG in all patients with an irregular pulse in whom AF is suspected.

It is recommended that primary care practitioners use the GRASP AF tool to detect and manage patients with Atrial Fibrillation: http://www.improvement.nhs.uk/graspaf/.
GRASP AF aims to:
• Improve outcomes through addressing optimal therapy for AF patients
• Develop better access and management in primary care for AF patients
• Reduce inappropriate referrals to secondary care and save bed days
• Reducing risk of stroke

Hypertension
NICE Guidance August 2011 http://www.nice.org.uk/nicemedia/live/13561/56008/56008.pdf

High blood pressure (hypertension) is one of the most important preventable causes of premature morbidity and mortality in the UK. Hypertension is a major risk factor for ischaemic and haemorrhagic stroke.

Lifestyle interventions
NICE Recommendations:

- Lifestyle advice should be offered initially and then periodically to people undergoing assessment or treatment for hypertension.
- Ascertain people's diet and exercise patterns because a healthy diet and regular exercise can reduce blood pressure. Offer appropriate guidance and written or audiovisual materials to promote lifestyle changes.
- Relaxation therapies can reduce blood pressure and people may wish to pursue these as part of their treatment. However, routine provision by primary care teams is not currently recommended.
- Ascertain people's alcohol consumption and encourage a reduced intake if they drink excessively, because this can reduce blood pressure and has broader health benefits.
- Discourage excessive consumption of coffee and other caffeine rich products.
- Encourage people to keep their dietary sodium intake low, either by reducing or substituting sodium salt, as this can reduce blood pressure.
- Do not offer calcium, magnesium or potassium supplements as a method for reducing blood pressure.
- Offer advice and help to smokers to stop smoking. NICE clinical guideline 127 – Hypertension 16
- A common aspect of studies for motivating lifestyle change is the use of group working. Inform people about local initiatives by, for example, healthcare teams or patient organisations that provide support and promote healthy lifestyle change.

2.1.2 Pre- Admission, Ambulance Acute Stroke *'FASTrack'* Pathway

The Ambulance service will ensure that there are agreed local policies and protocols for ambulance staff to use validated tools to screen for stroke or TIA in people with sudden

onset of neurological symptoms outside hospital, and that there is immediate access to a specialist acute stroke unit for those with persisting neurological symptoms.

Ambulance personnel ensure that they use a validated tool (FAST) to screen for stroke or TIA in people with sudden onset of neurological symptoms outside hospital. They ensure that people with persisting neurological symptoms who screen positive using a validated tool, in whom hypoglycaemia has been excluded, and who have a possible diagnosis of stroke, are transferred to a specialist acute stroke unit as soon as possible.

Pre Admission protocol for Stroke Thrombolysis

- All patients with signs and symptoms of an acute stroke will be assessed using the FAST mnemonic via the ambulance call centre or by crews on site.
- All ambulance patients with signs and symptoms of a suspected stroke (using the ambulance service checklist) will be handed over to a specialist stroke unit offering thrombolysis as soon as possible.
- The ambulance crew will make a pre-alert call to the receiving unit
- On arrival, the emergency department/stroke team will immediately assess (using ROSIER) for contraindications and if stroke is indicated, call the stroke team.

SECamb agreed pathway diagram can be found in **3.8 Care Pathways**

2.1.3 Management of Transient Ischaemic Attack

Aims

This document offers support for local providers to deliver the service outlined in this specification in order to improve, and ensure consistency, in the quality, effectiveness and affordability of a TIA service to best meet the local needs of the patients, the referrers and the commissioners.

Definition of TIA

TIA refers to **Transient Ischaemic Attack** and describes a clinical event which is regarded as a risk indicator for stroke. A transient ischaemic attack (TIA) is defined as stroke symptoms and signs that resolve within 24 hours (NICE, 2008). However, there are limitations to these definitions. For example, they do not include retinal symptoms (sudden onset of monocular visual loss), which should be considered as part of the definition of stroke and TIA (from NICE CG68N.) TIA is thought to be due to inadequate cerebral or ocular blood supply as a result of low blood flow, thrombosis, or embolism associated with diseases of the blood vessels, heart, or blood.

Evidence Base

- NICE Clinical Guideline for the Diagnosis and initial management of Acute Stroke and transient ischemic attack, 2008: Nice Guidance 2008 (The Nice Guidance is due for review and renewal December 2012)
- Map of Medicine and best practice TIA referral pathways
- Stroke or transient ischaemic attack (TIA) - suspected (outside the hospital)
- Transient ischaemic attack (TIA) and secondary prevention of stroke
- Implementing the National Stroke Strategy – an imaging guide (DoH May 2008)
- NASCET (North American Symptomatic Carotid Endarterectomy Trial)
- ECST (European Carotid Surgery Trialists' Collaborative Group)

General Overview

This Service Specification describes the level of service to be provided for the assessment, diagnosis and management of patients and expected service outcomes in a Rapid Access TIA Service by acute providers. This Service Specification sets out the requirements of a Transient Ischaemic Attack (TIA) service that is compliant with national guidance (NICE CG 68) and Best Practice Tariffs 2011/12 and 2012/2013 on the management of TIA.

Assessment - referral to specialist: Markers of a quality service

- Immediate referral for appropriately urgent specialist assessment and investigation

is considered in all patients presenting with a recent TIA or minor stroke
- A system which identifies as urgent those with early risk of potentially preventable full stroke -to be assessed within 24 hours of referral in high-risk cases; all other cases are assessed within seven days of referral
- Provision to enable brain imaging within 24 hours of referral and carotid intervention, echocardiography and ECG within 48 hours where clinically indicated.

Treatment Marker of a quality service

- All patients with TIA or minor stroke are followed up one month after the event, either in primary or secondary care.

Objectives

The overall aims and objectives of this service are:

- To deliver high quality care for patients within South East Coast in line with national guidance
- To deliver improved access for patients
- To reduce the number of people having a full stroke
- To demonstrate improved patient experience and outcomes and improved access for patients
- To demonstrate a reduction in unit costs and thereby deliver a value for money solution

Expected Outcomes

- The number of people in South East Coast having a full stroke will be reduced
- Patients will experience a seamless transfer of care between primary and secondary care
- All staff involved in the service will be appropriately trained and evaluated as competent as detailed in the National Stroke Strategy. The Best Practice Tariff 2011/12 states that patients are assessed by a **specialist stroke practitioner** who has the training, skills and competencies in the diagnosis and management of TIA.
- The service will have low rates of non-attendance (maximum 10%) as it will be easily accessible to all patients with minimal barriers such as geography, transport, language etc.
- All patients will have equitable access and treatment regardless of point of entry to the health service, gender, age, ethnicity, disability, sexual orientation, religion or beliefs
- All patients will have detailed personalised care plans which have been developed in partnership with themselves & their family/ carers
- All patients will be provided with detailed information on how to reduce their risk of stroke in future.
- The service should have the ability for those people with conditions which mimic TIA to be identified and appropriately managed in a timely manner to receive the correct diagnostic assessment and treatment
- Providers will be expected to implement internal processes which ensure all appropriate patients access this service no matter where they enter the hospital process to ensure care by the right person, in the right place, first time.

Scope

This Service Specification relates to the provision of a **7 days a week Rapid Access TIA Service** for patients presenting with suspected TIA or minor non disabling stroke within an acute providers. The provider will ensure that there is provision for a 7 day non admitted “one stop same day service” for higher risk TIA patients and a 7 day referral for lower risk TIA patients.

Service description

- The model should ensure delivery of the expected outcomes, and the design of the

service model to meet these outcomes is the responsibility of the service provider.

- Patient eligibility for the service is based on the ABCD2 assessment tool which should be used on all patients who present with a suspected TIA/non disabling stroke to ensure their risk is correctly assessed.
- Providers should take pro active measures to link with primary care colleagues in order to deliver a programme of ongoing awareness raising within primary care, to ensure timely referral and patient education about the need attend for same day / next day assessment.
- Providers should provide a comprehensive non admitting service which provides 7 days a week Rapid Access TIA Service which supports the timely diagnosis and treatment of patients. Out of hours provision may be via a shared joint service with provider colleagues. Use of telemedicine may be an option
- Providers should deliver a service which is designed to ensure higher risk patents are assessed, scanned, diagnosed and treated in a Rapid Access TIA Service within 24 hours of referral by a health professional , and within 7 days of referral for lower risk TIA patients
- Acute providers across South East Coast will provide the TIA service according to individual Trust guidelines/ pathways but outcomes for patients will be consistent across providers.
- The service should be provided on an outpatient / non admitted basis for the majority of patients with access to MRI/MRA. Some patients may require admission to an inpatient bed if their clinical condition dictates.

Interdependencies

The service is interdependent with a clear pathway established with SECAmb and GP services.

Service Delivery

- Provider will ensure that the service provides specialist assessment of the patient, including symptoms evaluation, investigations, diagnosis, treatments, and to assess the need for Carotid Doppler intervention in the high risk patients.
- For majority of patients (at least 60%) the assessment, screening and investigations, test results, diagnosis and the initiation of treatment will be made available to the patient on the same day as the patient attends the clinic within 24 hours of referral by a health professional.
- Patients requiring admission will be admitted direct to the Stroke Unit (e.g. unstable or crescendo TIAs) and be cared for within a high intensity monitoring regime. This will ensure access to urgent treatment should a full stroke occur.

Rapid assessment and investigations of suspected TIA – access to urgent brain imaging.

The Service will co-ordinate and request all investigations which should include:

- Blood tests
- Brain imaging in line with the national guidance (Imaging Guide for Stroke 2008)
- Carotid Doppler or Carotid angiography
- ECG

People who have had a suspected TIA who need brain imaging (that is, those in whom vascular territory or pathology is uncertain) will undergo **diffusion-weighted MRI** except where contraindicated in which case **CT (computed tomography)** scanning should be used.

Brain imaging service provision will be in line with national guidance : Imaging Guide for Stroke Strategy May 2008 & BPT 2011/12

ABCD2 is a simple score system to identify individuals at high early risk of stroke after

transient ischemic attack.

- **A** (Age); 1 point for age ≥60 years,
- **B** (Blood pressure ≥ 140/90 mmHg); 1 point for hypertension at the acute evaluation,
- **C** (Clinical features); 2 points for unilateral weakness, 1 for speech disturbance without weakness, and
- **D** (symptom Duration); 1 point for 10–59 minutes, 2 points for ≥60 minutes.
- **D** (Diabetes); 1 point

Total scores range from 0 (lowest risk) to 7 (highest risk).

Stroke risk at 2 days, 7 days, and 90 days:

- Scores 0-3: low risk
- Scores 4-5: moderate risk
- Scores 6-7: high risk

Very High risk Patients: ABCD2 ≥ 6 or multiple TIA episodes within the last week	• Admit to Stroke Unit with rigorous clinical monitoring these patients have an increased risk of having a full stroke within 24hrs.
Higher risk patients: ABCD2 ≥ 4	• Refer directly to TIA clinic and stroke physician. • If patients self presenting to A&E / MAU to give 300mg aspirin (or other anti platelet therapy if indicated) and offer advice regarding avoiding driving • A&E / MAU to refer to Rapid Access TIA service for an appointment on the next day.
If ABCD2 score of ≥ 4: high risk priority will be assigned	• OR if TIA/Stroke likely plus AF, TIA/Stroke likely plus on Warfarin, < 50 with likely TIA plus neck pain, TIA/Stroke plus prosthetic valve and under anti-coagulation, • The patient will be seen, investigated & treated in the Service (including diagnostics) **within 24 hours** of the of the patient being referred by a health professional
If ABCD2 score of ≤ 3, low risk priority will be assigned	• The patient will be seen and investigated in the Service (including diagnostics) within 7 days of the patient being referred by a health professional.

Treatment

Prescribing

Treatment to reduce the risk of stroke to be commenced within 24hrs could include:

- Aspirin (or other anti-platelet therapy if indicated)
- Statins
- Control of blood pressure (where needed)
- Referral for carotid intervention (where indicated
- Other treatment required should be offered within the timeframes stated in the National Stroke Strategy 2007.

Carotid Endarterectomy:

- People with an acute non-disabling stroke with stable neurological symptoms or with TIA who have symptomatic carotid stenosis of 50-99% according to the NASCET criteria should:
  - Be assessed and referred for carotid endarterectomy to be performed within **1 week** with providers working towards **48 hours** of onset of stroke or TIA symptoms.

- Receive the best medical treatment (control of blood pressure, antiplatelet agents, and cholesterol lowering through diet and drugs, lifestyle advice).

People with stable neurological symptoms from acute non-disabling stroke or TIA who have symptomatic carotid stenosis of less than 50% according to the NASCET criteria, or less than 70% according to the ECST criteria, will:

- **Not** undergo surgery
- Receive best medical treatment (control of blood pressure, antiplatelet agents, and cholesterol lowering through diet and drugs, lifestyle advice).
- Carotid imaging reports will clearly state which criteria (ECST or NASCET) were used when measuring the extent of carotid stenosis

Discharge & follow-up

The Service will:

- Provide secondary prevention advice (smoking cessation, diet, exercise, alcohol, driving and what to do in the event of a recurrent TIA or stroke)
- Organise a follow-up appointment within 1 month at the TIA Clinic
- Make provision for one follow up appointment in secondary care
- Provide a management plan for primary care within the discharge summary. within 2 days
- Ensure that the majority of patients will then be discharged to Primary Care (as appropriate) and should be reviewed within one month of the event to monitor progress, compliance with medication, reinforce secondary prevention or other relevant issues
- Monitor patients in line with QOF guidance in primary care

Referral, Access & Accessibility

Management of Out of Hours Referrals - 5pm - 9am,

Providers must have a mechanism for ensuring Out of Hours referrals or self presenters are assessed & treated appropriately

- Referrals to the service will be made using a locally agreed proforma including the details in the Stroke TIA Proforma below.
- Patients should be seen by a specialist in neurovascular disease (e.g. in a specialist neurovascular clinic or an acute stroke unit)
- The Service will be contactable at all times and messages will be responded to on the day of receipt.
- The Service will use the referred ABCD2 pro-forma to assess risk and assign high / low risk priority
- Electronic referral is the preferred method into the service
- The patient will be contacted and booked into the Rapid Access TIA Clinic :
  - High risk patients within 24 hours of referral by a health professional
  - Low risk patients within 7 days referral by a health professional.
- Inappropriate referrals (i.e. non TIAs) will be screened out at the point of receiving the referral or in some cases when the patients present to clinic. These will be followed up and discussed with the referrer. A monthly compliance report should be sent to the commissioner.
- Non TIA referrals/TIA mimic patients will be clinically assessed and every effort made to establish a diagnosis and commence treatment. Every effort should be made to ensure patients receive the right care first time, what ever their diagnosis.
- There should be good communication between the TIA Service and primary care:
  - The Service will confirm receipt of the referral with the referrer and the patients GP within 24 hours of receipt.
  - The Service will provide the outcome of the initial screening to the referrer and the patients' GP within 24 hours of the initial screening appointment, and will ensure that appropriate clinical action / treatment is commenced, with a care management plan devised and commenced.

- Any patient who does not attend their first clinic appointment will be contacted to identify the reason and re-appoint if appropriate. GP to be notified of non attendance

Stroke TIA Referral Proforma

▪ NHS Hospital Name ▪ Source of referral ▪ Date & time of First Contact ▪ Name of referrer & contact phone number ▪ Date & time of Referral ▪ Patient Name & Address ▪ Sex ▪ DOB ▪ Telephone number ▪ Registered GP ▪ Date of symptom(s) and brief history ▪ Recurrent events? If yes – how many? ▪ Current Drug Therapy ▪ Known additional risk factors	▪ ABCD^2 Scoring:	
	Age is 60 years or older	1 point
	Blood pressure 140/90mmHg	1 point
	Clinical features ▪ Unilateral weakness ▪ Speech disturbance without weakness ▪ Other	2 points) maximum 1 point) score 0 points) 2 points
	Duration : ▪ 60 mins ▪ 10 -20 mins ▪ 10 mins	2 points 1 point 0 points
	Diabetes	1 point
	ABCD² Score	Total score 0 - 7

Standards

Clinical Governance

The Service will ensure that robust clinical governance processes are in place to include:

- The provider will have Monthly Stroke and TIA Clinical Governance meetings in place where cases are reviewed and outcomes discussed
- Incident reporting including root cause analysis
- Compliance with locally and nationally agreed audits

2.1.4 Hyperacute Stroke Unit (HASU) – Hyperacute Phase 0 - 72 hours

For a unit to be commissioned as a HASU it needs to meet all the criteria listed in the ASU and RSU specifications, as well as the following:

- 24/7 provision of thrombolysis, either individually or via collaboration with other stroke units (e.g. using telemedicine)
- There will be a thrombolysis protocol in place
- For patients receiving thrombolysis the NIHSS (neurological tool for stroke severity) should be measured prior to treatment and recorded at 2 hours post treatment
- The stroke bleep holder will assess if the patient may be eligible for thrombolysis and will alert radiology to prepare for CT scanning. If the bleep holder is not a doctor, they will call the Physician on the stroke rota to assess the patient's suitability for thrombolysis.
- Hyperacute-trained stroke physician available 24/7 to make decision as to whether to thrombolyse, either in person or via telemedicine, with a sustainable on-call rota (no more onerous than 1:8)
- The Door-to-Needle time should within 60 minutes for 95% of patients receiving thrombolysis. As the processes become more streamline and experience grows, there is an expectation that this will reduce to 30 minutes.
- Thrombolysis will be available for suitable patients. All suspected stroke cases are screened against the medical criteria for thrombolysis; those who fit the criteria are scanned immediately. Once decision to thrombolyse is made, the patient should follow thrombolysis pathway in a safe environment
- Any thrombolysed patient should be monitored by stroke-trained staff according to a protocol for the first 24 hours post-thrombolysis.

- The Hyper-Acute stroke service for managing new stroke admissions within the 0-72 hr period should be a discrete bay/s
- There should always be a monitored bed available for the first 24 hours post-thrombolysis for all patients treated
- Mixed sex accommodation is permissible in this critical care environment for a very limited time (to level 2 for a critical care unit).
- Data should be collected for audit purposes on patients who are assessed for thrombolysis and do not receive it, as well as for patients who do receive thrombolysis
- Agreed protocol for treating patients arriving at HASU with non-stroke diagnosis
- Robust repatriation policies in place
- Referral to an Early Supported Discharge pathway should be offered if clinically appropriate

2.1.5 Access To 24/7 Stroke Thrombolysis

License for thrombolysis
Currently, only one thrombolytic is licensed for stroke (Alteplase) and two of the conditions of the license are open to clinical judgement:-

- There is growing evidence of the benefit of thrombolysis up to 4.5 hrs from onset. In some centres, patients over the age of 80 are being treated outside the current licence, but there is wide variation in practice across the country. The Third International Stroke Trial (IST-3), which is due to publish its findings in 2012, will provide further guidance on treating older patients.
- If thrombolysis is given outside of the current licence, the decision to do so must be recorded and audited.

Specific requirements for stroke thrombolysis service

- The thrombolysing centre will need to be registered with the UK Safe Implementation of Thrombolysis in Stroke Monitoring Study (SITS-ISTR).
- A minimum rota of 1:9 (with prospective cover) will operate for stroke specialist thrombolysis cover. The rota should be led by **Stroke Lead Consultant** (as per the BASP guidelines, see Appendix A) and completed with **physicians, with an interest in stroke** (see Appendix A for person specification), There should be no more than two consultant supported posts (registrar level or above) on the rota.
- Nurses trained in stroke and monitored beds will be available 24 hrs a day
- The physician trained in thrombolysis should also be able to interpret scans
- Telemedicine will be used to access a physician trained to administer thrombolysis.
- NICE guidelines will be followed.

Thrombolysis Decision

- All appropriate patients meeting the evidence based criteria will have thrombolysis within 4.5 hours of symptom onset of a stroke following an agreed protocol.
- The decision to thrombolyse and administer thrombolysis will be taken by an appropriately trained Physician with an interest in stroke.
- Hospital inpatients who suffer a suspected stroke will be seen and assessed by a specialist stroke team within 30 minutes of symptom onset and transferred to the stroke unit if clinically appropriate as per the stroke pathway

Benefits

Description of expected benefits	
B1.	To increase the number of patients who receive thrombolysis as treatment for an acute stroke
B2.	To reduce the time from onset to thrombolysis delivery
B3.	To increase the number of potential stroke patients being assessed by a stroke

	specialist physician.
B4.	To reduce the mean length of stay in hospital for stroke thrombolysis patients
B5.	The majority of stroke patients will receive specialised care on a stroke unit
B6.	To increase the number of stroke patients who return home directly from hospital.
B7.	Reduced disability as measured by the modified Rankin scale (mRs)
B8.	Improved clinical governance

Clinical Measures

C1. 10 - 12% of patients to receive thrombolysis
C2. Mean onset to needle time
C3. Number of assessments made by physician with stroke training
C4. Reduction in average length of stay for thrombolysed patients
C5. Stroke patients should spend 90% of their admission on a stroke unit
C6. Patients discharged to usual place of residence
C7. Reduced dependency scores, based on Modified Rankin Scale (mRs)
C8. Monthly governance and audit meetings will be facilitated and minutes taken.

2.1.6 Acute Stroke Unit (ASU):

For a unit to be commissioned as a ASU it needs to meet all the criteria listed in the RSU specifications, as well as the following:

- Hospital providing acute general medical services 24/7 with Emergency Department and HDU/ITU support
- Accepts new stroke patients 24/7
- Receives repatriated local patients from hyper-acute stroke unit within 24 hours of notification of transfer if their condition permits it, with the necessary protocols in place to permit such transfer. Only in exceptional cases will this be greater than 72 hours from admission
- Direct admission to the stroke unit from the Emergency Department within 4 hours of arrival at the hospital
- 24/7 access to brain imaging, with imaging of patients in the next slot or within 1 hour to plan urgent treatment (eg thrombolysis), and always within 12 hours
- Continuous monitoring (defined as at least 4 hourly observations) of patient should be available where clinically appropriate
- All new admissions to be seen by a consultant within 24 hours of admission
- Consultant physician with responsibility for stroke available 5 days a week from 9am to 5pm
- Daily ward rounds by a stroke-trained physician
- Process in place for consultant physician with experience of stroke to review a deteriorating patient out-of-hours
- Eligible patients who are medically stable will have appropriate carotid imaging (MRA/CTA/Doppler) within 48 hours of admission and, if indicated, carotid intervention within one week, with providers working towards **48 hours** of onset of stroke
- Stroke physicians will input to the multi-disciplinary management of neuro-surgical and interventional neuro-radiological cases
- 24/7 access to neurosurgical facilities available for the treatment of intracranial haemorrhage and facilities for hemicraniectomy for malignant middle cerebral artery infarction
- 24/7 access to neuro-critical care
- 24/7 access to interventional radiology
- Access to vascular surgeons, either direct or via telemedicine
- Rigorous participation in clinical audit (e.g. SINAP/SSNAP)

- Aspirin / Clopidogrel prescribed to all patients, where not contra-indicated, within 24 hours
- All patients to be mobilised out of bed on day of admission unless contra-indicated
- Documented goals to have been established by stroke-specialist multidisciplinary team within 5 days of admission

The maximum length of stay on an Acute Stroke Unit will be 7 - 12 days, and it is expected by this time patients will be transferred to a bed on a Stroke Rehabilitation Unit or back to the community via Early Supported Discharge. Reasons for a patient to remain in an acute inpatient facility beyond this point would include:

- Medical instability, i.e. serious infection, seizures, unstable diabetes, unstable cardiac condition, requiring respiratory support
- Complex feeding issues including PEG placement
- Extension of stroke or another event
- Transfer back from neurosurgical unit
- Peri-surgery – carotid endarterectomy
- End of Life Care

2.1.7 Rehabilitation Stroke Unit (RSU):

Rehabilitation will begin during the acute phase and will commence as soon as an MDT assessment and care plan has been compiled. Rehabilitation programmes are built around the individual needs with patient agreed goals.

The maximum length of stay in the Rehabilitation Stroke Unit should be an average 21 days, although clinical need may create exceptions to this.

The following are the minimum criteria:

- Agreed protocols in place for receiving and discharging patients 7 days a week
- The length of stay in the Rehabilitation Stroke Unit should be 21 days as described in the Payment by Results Guidance 2011-12 for Stroke Care, although clinical need may create exceptions to this.
- Is rehabilitation-focused, providing specialist stroke care that need not necessarily be delivered in a secondary care setting
- To **provide the role of a Stroke Co-ordinator** whose primary role will be to co-ordinate the services as outlined in this specification for adult patients following a stroke
- 24/7 Stroke trained nurses
- Nurse staffing levels and skill mix to reflect clinical need of patients
- Consultant stroke clinician available 5 days a week between 9am and 5pm
- Protocols for supporting continence in order to reduce usage of urinary catheters
- The following will be performed as directed unless assessment has already taken place elsewhere since stroke admission:
    - Swallow screen by a specially trained healthcare worker within 24 hours of admission. It is recommended that this take place within 4 hours if possible
    - Nutritional screen by a specially trained healthcare worker within 24 hours of admission
    - Assessment by a physiotherapist within 72 hours of admission
    - Occupational therapist assessment within 72 hours of admission
    - Assessment of communication problems by Speech & Language Therapist within 72 hours of admission
    - Social work assessment within a maximum of 7 days from referral, if appropriate
    - All patients are screened within 6 weeks of diagnosis (using a validated tool) to identify mood disturbance and cognitive impairment, and a referral made where clinically appropriate
- Patients with stroke are offered a minimum of 45 minutes of each active therapy that is required, for a minimum of 5 days a week, at a level that enables the patient to

meet their rehabilitation goals for as long as they are continuing to benefit from the therapy and are able to tolerate it
- Multidisciplinary meetings at least once a week to plan patient care
- The multidisciplinary team will be made up of a range of professionals with the competencies and capacity to offer the following:
    - Respiratory care to maintain clear airway
    - Swallowing and impaired communication management
    - Dietary care to maintain optimal nutrition
    - Skin care to maintain good skin health
    - Care plan to promote continence
    - Functional re-education and rehabilitation
- Patients presenting with Stroke who have Atrial Fibrillation are anti-coagulated on discharge, unless contra-indicated or otherwise inappropriate (whereby the decision and reasons will be fully documented)
- Ensure that stroke patients have access to a comprehensive orthoptist service if required
- Agreed protocols in place for managing inpatients with multiple pathologies precluding transfer to a stroke unit
- Continuing education programmes for staff
- Work alongside other organisations to ensure Best Practice is shared and implemented
- Participation in RCP Sentinel Audit and any other statutory audits
- Formal links with patient and carer organisations
- Formal links with social care, where required
- Facilities for relatives
- Provision of information to patients, carers, families and others about stroke
- Provision of secondary prevention information and advice and referral to support services where clinically appropriate

2.1.8 Early Supported Discharge (ESD):

1. Purpose

1.1 Aims

Early Supported Discharge is a 7 days a week service delivered 365 days a year with a minimum of 5 days a week therapy input. The aim of this service is to deliver community based specialist rehabilitation, reducing length of stay (LOS) in an Acute Stroke Unit and other inpatient stroke rehabilitation units for newly diagnosed people post stroke.

Early Supported Discharge (ESD) will reflect evidence based outcomes, and maximising opportunities for care at home in the person's usual place of residence for the first **6 weeks** post discharge from hospital.

1.2 General Overview

The service will provide an inter-disciplinary coordinated specialist stroke rehabilitation, advice, social and emotional support to people who have experienced a stroke and their carers, offering support during the transition from hospital to home, for the first **6 weeks**.

The service will be delivered as an integrated pathway, in order to meet the rehabilitation needs of people who have suffered a stroke.

The community stroke pathway links closely with the in-patient provision, to ensure co-ordinated transfers. In supporting early discharge from in-patient settings, the service will establish clear and seamless discharge plans that meet the person's individual needs, supporting carers when appropriate; giving intensive and person centred rehabilitation

1.3 Objectives

It is intended that this service will reflect the wider South East Coast Stroke Network vision

for early supported discharge and rehabilitation by achieving the following:

- A coordinated inter-disciplinary approach
- Facilitating earlier hospital discharge for people post stroke
- Facilitating a seamless transition between hospital and community through assessment, coordination, care planning and collaboration with appropriate agencies
- Offering assessment and treatment to improve the functional ability of people post stroke, living in the community, to their optimum level, using an agreed evidence based outcome measures
- Ensuring service user and carer involvement in individual care planning, service development and evaluation
- Collaboration with Acute in-patient and rehabilitation settings, to proactively drive discharge plans
- Promoting social inclusion
- Promoting community integration
- Promoting secondary prevention for people post stroke as part of the longer term vision.

The expectation is that the pathway, the associated protocols and processes support and meet best practice and evidence as detailed in the National Stroke Strategy and the National Clinical Guidelines for Stroke.

1.4 Expected Outcomes

The high level expected outcomes for the service are outlined below in Table 1 and 2.

Table 1: Expected System Outcomes

- Earlier In-Patient discharge for people post stroke (against 2009/10 baseline) measured against average length of stay enabling a more efficient use of stroke unit beds
- Seamless transition along the stroke care pathway
- Increased access to community stroke rehab services for people
- Providing more appropriate domiciliary based care to prevent unnecessary readmission to hospital

Table 2: Patient Centred Outcomes

- Increased numbers of people post stroke supported to maximise ability and independence
- Improved patient outcomes in terms of death or dependency
- Improved person and carer experience and quality of life through improved functional outcomes and extended activities of daily living
- Every person post stroke has a rehabilitation care plan, which includes personal goals

These outcomes support the standards and will be carefully measured by performance monitoring and KPIs.

The provider will be required to establish a database which includes a minimum data set as outlined in Sections 5.4 and collection of required outcomes data within this database will be required.

2. Scope

2.1 Service Description

The service will provide inter-disciplinary co-ordinated specialist stroke rehabilitation, advice, social and emotional support to people who have experienced a stroke and their carers, offering support during the transition from hospital to home for the first 6 weeks post transfer.

For a notional 100 patient caseload per year (whole time equivalent values given in brackets), the ESD Inter-disciplinary team (IDT) preferably should comprise:

- physiotherapist (1.0)
- occupational therapist (1.0)
- speech and language therapist (0.4)
- nurse (0-1.2)
- physician (0.1)
- social worker (0-0.5).

ESD teams should be organised by a coordinator and have a secretary. ESD teams should meet on a weekly basis and that each patient should be assigned a keyworker (a specific staff member responsible for them). The effectiveness of the ESD service relies on cooperative and collaborative decision making between ESD and acute services. Co-ordinated continuity and handover of care from ESD to community based services also needs to be planned carefully.

3. Referral, Access and Acceptance Criteria

3.1 Location(s) of Service Delivery

The service will be delivered within the following locations as require:

- Person's own home or residential/nursing home – it is anticipated that the majority of interventions will take place in this setting
- Any appropriate environment deemed suitable to meet the person's needs e.g. gym environment or leisure centres.

3.2 Referral criteria & sources

- People post Stroke who are categorised as mild to moderate, taking into account non-physical dependency such as cognitive, visual perceptual and language deficits, for example initial Barthel ADL Index >9, and who would benefit from specialist stroke rehabilitation and interventions
- People and their carers who have consented to the ESD Service
- People who are safe for discharge and able to be managed in their own homes and do not require the supervision of a Stroke specialist Consultant as per the latest best practice.

3.3 Referral route

The Team Lead or Clinical Lead Therapist will assess all appropriately referred clients who are currently:

- an inpatient within any acute or rehabilitation setting
- Who require stroke specific rehabilitation

All referrals will be directed into the teams via the Single point of access Team Bases.

3.4 Referral Documentation

Referral documentation will contain a minimum data set as outlined below in the table, below:

Minimum Information for Referral Documentation

Minimum information available immediately on referral	Further information required on discharge.
• **Name** • **Address** • **Telephone number** • **Date of birth** • **NHS number** • **Hospital number** • **GP name and practice** • **Date of event** • **Ward/Hospital (if inpatient)**	• Diagnosis (plus CT/MRI scan result) • Consultant • Medication and known allergies • Past Medical History • Social History • Ethnic origin • Summary of needs • Referrer details and source • Next of kin and contact details • Carer details • Evidence of agreed patient goals • Other teams/disciplines involved

On transfer from in-patient care, the discharging team will ensure all equipment and support services necessary for a safe discharge are in place prior to hospital discharge.

Standards are set in agreement with the commissioning lead and the local provider. The following are agreed as minimum standard of service:

4. Standards

4.1 Response time and prioritisation

1	All identified patients to be screened and assessed for appropriateness within **24 hours** of referral to ESD
2	All appropriate patients to be discharged to the ESD service within **24 hours** of assessment.
3	Appropriate patients rehab programme to be started within **24 hours** of discharge to ESD
4	Patients to have goals and outcome measures agreed with them, their family/carers and the rehabilitation team of which they receive a copy, appropriately formatted for their individual needs within one week of admission to ESD (modified Rankin Score?)
5	To have named contact on discharge from an inpatient rehabilitation setting to ESD and a Key Worker within one week of admission ESD
6	Carers to be offered a re-assessment of their needs with 2 weeks of admission to ESD

4.2 Therapy Inputs and clinical goals

1	Patients with stroke are offered a minimum of 45 minutes of each active therapy that is required, for a minimum of 5 days a week, at a level of intensity that enables the patient to meet their rehabilitation goals for as long as they are continuing to benefit from the therapy and are able to tolerate it. (**NICE Standard**)
2	Appropriate patients to receive cognitive/perceptual re-assessment within one week of admission to ESD. Treatment plan to be agreed with follow up as required
3	Patients to have access to ongoing psychological support or referral to an appropriate service capable of supporting and managing people with mood, behaviour and cognitive disturbance.
4	Patients with stroke who have continued loss of bladder control 2 weeks after diagnosis are reassessed to identify the cause of incontinence, and have an ongoing treatment plan involving both patients and carers. (Nice Standards)

4.3 Patient Review

The ESD Provider will be expected to contribute to a 6 week patient review as part of an assessment of the effectiveness of Early Supported discharge

6 Discharge Planning

Those being transferred from the ESD service are those that no longer require 5 day per week therapy input within the 6 week time frame.

The Stroke Early Supported Discharge Service (Stroke ESD Service) will work with the person and their family/carer to coordinate a planned progression from the ESD service.

The person and their carer/family member will work with the ESD service to ensure a smooth transfer of care out of the service and be signposted to other community rehabilitation services/agencies as appropriate.

Management of transfer out of the service will be part of the Care Planning that commences at Admission to the service and is reviewed at timely intervals during the period of care.

Forward referral to other agencies and completion of accurate records and discharge letters to General Practitioners or referring agencies within 5 days of discharge from the service.

2.1.9 Stroke Community Specialist Rehabilitation (CSR)

There should be coordinated development of rehabilitation services and long-term support in the community, which can deliver comprehensive and effective rehabilitation to meet the needs of Stroke patients post acute, rehabilitation support unit and Early Supported Discharge.

1 Objectives

A community stroke rehabilitation service that meets the following objectives:

- **Specialist, co-ordinated rehabilitation** with components of multi-faceted stroke rehabilitation and support (Quality Marker 10 of the National Stroke Strategy 2008).
- An **community rehabilitation service** capable of meeting the specific health and social needs of people of a working age, with access to vocational rehabilitation resources.
- A service capable of **delivering specialist stroke rehabilitation at home, in a care home or residential nursing home,** in liaison with inpatient services, as nationally recommended.
- Those patients who require palliative care following a stroke are **cared for as outlined in the End of Life service specification and the Liverpool care pathway.**
- To **provide the role of a Stroke Co-ordinator** within each community locality whose primary role will be to co-ordinate the services as outlined in this specification for adult patients following a stroke e.g. access to Long Term Review (Please see **Appendix C – Stroke Co-ordinator Guide**)
- To encapsulate within the service, the **views of patients and their carers** in a meaningful way.
- The Provider will be expected to contribute to a 6 week patient review after discharge from a service in line with network agreed guidance (attached below).
- To ensure referrals **follow an agreed care pathway** that optimises both the patient outcome and use of scarce resources.
- To ensure clinical outcome **data** and patient and carer **feedback** on quality and satisfaction are an integral part of on-going performance management to ensure quality improvement.
- To ensure **joint stroke registers** are in place in the community that are linked to the local acute providers in order to track patients across the entire pathway of stroke

care, to facilitate access to long term review and other key resources.

- To deliver a service that demonstrates **equity of access** of those patients with and without carer support.
- To provide **access to a Stroke Support Worker** that is embedded within the **c**ommunity service to offer patient and carer support, advocacy and signposting
- To **provide access** to skilled care and support for those stroke patients who reside in **care homes**.

2 Expected Outcomes

By providing the service outlined above for patients and carers affected by stroke, the provider will enable the following outcomes:

a) Improved clinical outcomes
b) Improved health and emotional well-being
c) Improved quality of life for the patient & better self management by patients and their carers
d) Improved personalisation of stroke care
e) Reduced unscheduled re-admission rates

3 Service Scope

A range of services will be in place and easily accessible to support the individual long-term needs of individuals, their carer/s and families, encouraging self management where appropriate. Comprehensive social care is provided to all patients and carers who need it.

The service requirements include:

- Single point of contact provided when patients leave hospital.
- An accessible service that is equitable, effective, efficient, responsive and affordable for the local population.
- A service that contributes to the health and well being of stroke patients
- All stroke survivors discharged from hospital who have residual stroke related problems are followed up within 72 hours by specialist stroke rehabilitation services for assessment and ongoing management
- Any stroke survivors referred to a social worker will receive an assessment within 72 hours of receipt of the referral.
- Goals incorporated into a personalised care plan that allows the patient to take ownership of their rehabilitation and reviewed regularly (every 4-6 weeks) with the patient throughout the treatment period.
- Active therapy at a level appropriate for obtaining rehabilitation goals for as long as they are continuing to benefit from the therapy and are able to tolerate it (target for 45 mins per discipline, 5 days a week)
- The GP and other relevant community services are informed that a stroke survivor has been discharged home or to another hospital prior to discharge.
- Age appropriate provision made for the social care requirements of stroke survivor prior to discharge, e.g. domestic tasks (such as shopping and laundry)
- Adult Social Services provide advice on aids and adaptations to daily living.
- Review of the home environment, usually by home visit by an occupational therapist, to adapt to patients needs where patient remains dependent in some activities.
- A carers assessment should be completed for each carer with links to carer support groups made and family support organisations followed up
- Specialist stroke rehabilitation, support and any appropriate management plans will address the following issues either directly or by seamless onward referral where required:
    - Mobility and movement (including exercise programmes, gait retraining, mobility aids and orthotics)
    - Upper limb rehabilitation

- Management of spasticity and tone
- Sensory impairment screening and sensory discrimination training
- Falls prevention (including assessment of bone health, progressive balance training and aids)
- Cognitive rehabilitation (including addressing impairment in attention, memory, spatial awareness, perception, praxis and executive function)
- Communication (Including aphasia support twice weekly during the first 20 weeks, techniques or aids for dysarthria and apraxia, information about local groups
- Everyday activities including provision of daily living aids and equipment (e.g. dressing, washing, meal preparation)
- Emotional and psychosocial issues (e.g. depression, adjustment difficulties, changes in self esteem or efficacy, emotionalism)
- Swallowing (including swallowing rehab, maintenance of oral and dental hygiene, nasogastric tube feeding, gastrostomy)
- Skin integrity (i.e. pressure care and positioning)
- Nutrition (Including specialist nutritional assessment, nutritional support
- Visual disturbance
- Continence (bladder and bowel)
- Social interaction, relationships and sexual functioning (including psychosocial management or medications)
- Pain (assessed regularly using validated score, referred to specialist where indicated)
- Home assessment (including need for larger scale equipment or adaptation
- Return to work (including referral to specialist in employment or vocational rehabilitation)
- Driving

2.1.10 Community Stroke Survivor Support Service:

Longer Term Re-ablement and Support Services and Secondary Prevention Stroke Services:

Expected Outcomes
The Community Stroke Support Service would work with a range of statutory, community and voluntary sector services, to achieve the following outcomes where stroke survivors and carers are:

- Enabled to live a full life in the community through accessing universal services and community based support services;
- Confident and in control of managing their health and well-being;
- Benefiting from lifelong learning opportunities;
- Have built/re-built a range of social networks;
- Supported to establish peer to peer support groups;
- Are taking positive actions to minimize the risk of further strokes;
- Have retained existing employment or found alternative employment within a supportive environment in paid/voluntary work.

The performance of the service provider will be evaluated against a number of quality markers, as set out in the National Stroke Strategy.

In addition, the National Service Framework for Long Term Neurological Conditions also sets out a number of relevant quality markers,

NSF Quality Requirements for Long Term Neurological Conditions 2008

Principles of the service
The service provider must adhere to the following principles:

1. **Stroke survivors and their carers** are actively involved in the rehabilitation process. This means the active involvement of stroke survivors and their carers in establishing jointly agreed goals and how these can be achieved.
2. **Person Centred Planning** – This requires a process of discovery of individual aims and skills that focuses on the individual rather than service provision constraints, a collaborative effort by the individual and those willing to commit time and energy to support the individual in achieving his or her goals.
3. **Carers should be treated as equal partners in care**. The service provider recognises that carers should be treated as equal partners, with appropriate respect for and acknowledgement of their experience and expertise in the care of the stroke survivor.
4. **Bringing resources together to make more**. Tapping into all relevant support programmes offered by statutory and community & voluntary sectors to create enabling opportunities.
5. **Social & Economic Inclusion**. Regular life experiences that include family, friends, acquaintances, a job and a social life.
6. **Choice & Independence**. Having the support, advice and information to make real choices and the support to be able to follow through and make those choices a reality.
7. **No one is unemployable**. All individuals who want to work can work in a job that matches their skills and needs in a supportive environment.
8. **Learn about work in work**. People learn about life by living, not by having life experiences in artificial environments. Everyone learns about work in work, making mistakes, making friends and developing skills in real work situations.

Service Scope

Provision of information and support for stroke survivors, carers and families includes:

- Support for financial management and accessing benefits
- Community leisure and exercise classes are available and promoted to stroke survivors, who are then supported to attend
- Stroke Survivors are aware and are offered options to promote wellbeing, including peer-led support groups, engagement in community activities and professional psychological therapies including IAPT and community mental health services
- Telephone counselling support available
- Ongoing physical, speech and language, continence and other required therapies are provided where clinically appropriate to meet patient needs
- Carers of stroke survivors with stroke are provided with a named point of contact for stroke information, written information about the stroke survivor's diagnosis and personal care plan, and sufficient practical training to enable them to provide care
- Carers are provided with clear guidance on how to find help if problems develop.

2.1.11 Patient Reviews

The service will have in place **a plan for review of the patient at six weeks post discharge** (using a validated tool: see **Appendix B** - Network Stroke Long Term Review model) and a process for re-referral in the event of a problem arising out with the remit of the generic service, in accordance with Quality Marker 14:

- People who have had strokes and their carers, either living at home or in care homes, are offered a review from primary care services of their health and social care status and secondary prevention needs, typically within six weeks of discharge home or to care home
- Patients are offered **specialist assessment and review (**ASI**8** Assessment and review - Proportion of stroke patients that are reviewed six months after leaving hospital), at six months after hospital discharge and an ongoing annual health and social care review after that in line with the Network model. (Quality Marker 14 of the National Stroke Strategy 2008)

The measures of success associated with this include reduced readmission and long term dependency rates.

2.2 Accessibility/acceptability

The integrated stroke service will be available to all Trust patients who present with symptoms of Stroke or TIA. Eligibility criteria for thrombolysis and ESD apply.

Evidence based practice shows that patient outcomes are greatly improved if admitted directly to a stroke unit. **Patients presenting with symptoms of stroke should not be admitted to a Medical Assessment Unit or an Acute Medical Unit**. They should be admitted to the acute stroke unit either directly from A&E or by the ambulance service or via brain imaging.

In addition, the following requirements will be met:

- Clinical outcomes: The health needs of the population of South East Coast will be met
- Strategic fit: Service provision must meet national, regional and local guidance
- Equity of care: Consistency of stroke service delivery; variability will be minimised
- Sustainable services across the whole care pathway including training and availability of appropriate staff

2.3 Whole System Relationships

Pre- Admission Ambulance services, Hyper-acute, acute and early specialist rehabilitation services form part of the stroke care pathway and should integrate with other components of the pathway (e.g. other community services and voluntary support services) to ensure that all patient needs are met. Other partners in the stroke care system include Adult Services and primary care. A clear protocol for the transfer of patients to and from Hyper-acute and acute units with relevant time frames will be agreed with the Ambulance Service.

2.4 Interdependencies

Efficient and timely integrated stroke care will require that good relationships are established and maintained with ambulance services, primary care, Adult Services and other hospital departments including:

Cardiology
Vascular and cardiac imaging
Radiology – scanning and interpretation
Neurology – interventional neuro-radiology, neurosurgery, neuro-critical care
Out of area providers
All Trusts delivering stroke services
Community services
The Stroke Association (including the Communication Support Service)

In addition, the service is interdependent with longer term re-ablement and support services for people post stroke, both within the local authority and third sector. It is expected that there is regular communication with these services and that clear pathways are established.

The service is interdependent with secondary prevention stroke services in both primary and acute care settings and will be expected to support the implementation of secondary prevention strategies.

2.5 Relevant networks and screening programmes

The local Stroke Network will have a key role in ensuring that best practice is achieved across the region - this will be facilitated by networking between Trusts.

3. Service Delivery

3.1 Service model

The service model is to be determined locally by agreement between the commissioner and the provider of services. It is expected that once agreed that this specification will be

adapted locally and form part of the contract for the provision of Stroke provider services.

The service model may comprise hyper-acute care, acute care and early specialist rehabilitation at sites conforming with the requirements set out in 2.1..The service is encouraged to achieve the requirements for the best practice tariffs for care provided on a stroke unit and timely delivery of initial brain imaging (Paying for Best Practice: Stroke Care, Payment by Results Guidance, 2011-2012).

Patients who are identified as potentially having a stroke via the FAST assessment are taken directly to either a Hyper-acute Stroke Unit or an Acute Stroke Unit (depending on time since onset of symptoms). Upon arrival at hospital, the patient is diagnosed and then proceeds to treatment. The level of care provided at both types of stroke unit will be similar but a hyper-acute stroke unit will additionally be able to provide thrombolysis to eligible patients 24 hours a day, 7 days a week, 365 days a year. All patients then undergo rehabilitation as appropriate to their clinical need.

3.2 Patient Experience

- Patients and their carers are informed throughout the care pathway on a regular and timely basis of:
    - Their prognosis and situation
    - What is likely to happen to them next e.g. how soon they will be seen, frequency of contact, contact information for the new team, how goals will be carried over
    - Who is taking care of them and who is responsible for their care
    - What they need to be doing to facilitate their care and recovery e.g. advice and information about exercises or other activities that they can practise independently
- Patients and carers are able to access information provided to them i.e. provided in an appropriate format/medium, and in relevant community languages other than English; and that is specific to the phase of recovery and their needs at that time.
- Patients and carers receive instruction and guidance regarding any prescriptions – verbally and supported by written information.
- Families and carers are actively involved in day to day care, rehabilitation and decisions about the planning and delivery of their care.
- Patients are directed to relevant voluntary service organisations.
- The service has in place a process for incorporating patient/carer feedback into quality improvement service developments

3.3 Engagement and Communications

- Awareness-raising activities are proactive and ongoing e.g. FAST awareness across primary care, care homes and providers and the general public
- Providers of stroke services are actively engaged with their local stroke network e.g. to ensure that each stroke unit is linked to a regional neurosciences centre for emergency review of local brain imaging
- Clinical teams proactively communicate between themselves and with anyone who takes over responsibility for the patient's care, while the processes used to manage care involve all relevant people and support seamless transitions between services along the pathway.
- Clinical Team members communicate regularly with patients and carers in appropriate ways for their condition and needs
- Formal links exist with patient and carer organisations e.g. local users' forum, Stroke Association Group, community stroke clubs.

3.4 Data Transfer and Information Sharing

- Accurate and explicit records of patients are recorded and shared using agreed protocols between all hospital, community and social care practitioners and individuals in a timely way.

3.5 Data Collection and Monitoring

- All organisations should report historical Sentinel metrics where available and required
- All organisation should submit data for the DH Stroke and TIA IPMRs
- All Clinical services take responsibility for all aspects of data collection, keeping stroke register, and participation in national stroke audit (SSNAP) either directly via upload of equivalent local data that enables comparison with regional and national peers.
- A sustainable system of coding for stroke patients is in place
- Local guidance should be in place to support the collection of data between community and across service providers
- All organisations will need to develop a robust system for collection and validation of reliable and accurate stroke data with a lead responsible individual to approve and sign off the data. This may involve investment in a data system and personnel to avoid the burden of data collection responsibility on clinical staff.
- An assessment of patient and carer experience across the stroke pathway is required at regular intervals. This information should be used to inform the improvement of local services and results submitted to inform commissioners on the progress in improving patient experience.

Datasets Identifier and source:

The majority of data should be collected via the SSNAP Data tool.

There will be some local requirement with a separate data collection exercise. These metrics are believed to be important components of the care pathway. Examples of Local Datasets designed to support the collection of relevant data are highlighted below:

Thrombolysis Datasets example:

Thrombolysis Data capture

- Providers of stroke thrombolysis are required to complete the SITSMOST database in order to deliver a thrombolysis service.
- Aggregated non-patient identifiable SITS data will be made available to the relevant Stroke Network on a quarterly basis.
- Providers of stroke thrombolysis are required to share (as a minimum) the following data with the Stroke Network on a quarterly basis showing figures for the quarter and year to date:

Minimum core dataset for Thrombolysis				
BENEFIT NO	Data item	No. recorded in hours (09:00 to 17:00 mon-fri)	No. recorded out of hours (OOH – 17:00 to 09:00 and weekend)	% of all strokes
B3	Total strokes admitted			
B1	Thrombolysed pts			
	Acute Stroke calls			
	Time to thrombolysis <4.5 hrs (No. of Pts)			
	Mean door to needle time			
B2	Mean Onset to needle time (mins)			
	Mean door to scan time			
	Patients treated over age of 80yrs			

In addition, the following data elements are required to measure the benefits:

B4. Mean Length of stay in hospital for **stroke thrombolysis** patients
B5. % of stroke patients spending 90% of their stay on a stroke ward
B6. Nos of patients admitted and discharged to UPR

B7. Nos of patients with reduced mRs outcomes
B8. Minutes of monthly/regular clinical thrombolysis governance meetings at each participating Trust

ESD Datasets Example:

Response Time, Details and Prioritisation Minimum Data Set for ESD The data set will be used as a point of reference as a tool in addition to the performance monitoring indicators. Response time, details and prioritisation data will be gathered in a minimum data set as out lined in the table below:

Data Set
Date referral received
Date of initial screening and assessment by the ESD team
Date of hospital discharge
Date of the start of ESD Service
Date of agreed goals and outcome measures and personalised care plan developed
Level of dependency on initial assessment using agreed tool
Date of request for assessment by other team members (specify discipline)
Date of first contact by other team members (specify discipline)
Date of ESD review prior to discharge
Date of discharge from ESD
Date discharge summary forwarded to all appropriate professionals
Level of dependency on discharge using agreed tool
Place of residence on discharge

Specialist Community Stroke Rehabilitation (CSR) dataset:

Data Set
Date referral received
Date of initial screening and assessment by the CSR team
Date of hospital discharge
Date of the start of CSR Service
Date of agreed goals and outcome measures and personalised care plan developed
Level of dependency on initial assessment using agreed tool
Date of request for assessment by other team members (specify discipline)
Date of first contact by other team members (specify discipline)
Date of patient 6 weeks review prior to discharge
Date of discharge from CSR
Date discharge summary forwarded to all appropriate professionals
Level of dependency on discharge using agreed tool
Place of residence on discharge

3.6 Training and Competence

All providers along the integrated stroke care pathway should be able to provide evidence of a skilled and competent workforce – e.g. use of NIHSS training, attendance at regional training events, use of stroke-specific competencies, in-house courses endorsed by UK forum for stroke training, etc.

- All staff involved in the care of stroke patients will be **appropriately skilled with proof of completion of STARS on-line training plus other formal stroke specific training** as well as any other relevant professional training required. This will be recorded as part of their on-going personal development plans.
- Staff administering thrombolysis will be appropriately trained
- Appropriate staff will be trained in the NIHSS

- Trained nursing staff that are able to assess and monitor thrombolysed patients will be available 24/7.
- All staff will be trained in line with the national education framework, incorporating a competency based training programme, yearly updates, a rolling programme of on-going education and a mentoring programme.
- Workforce plans will include measures to ensure the service is sustainable
- Workforce reviews will be on an annual basis

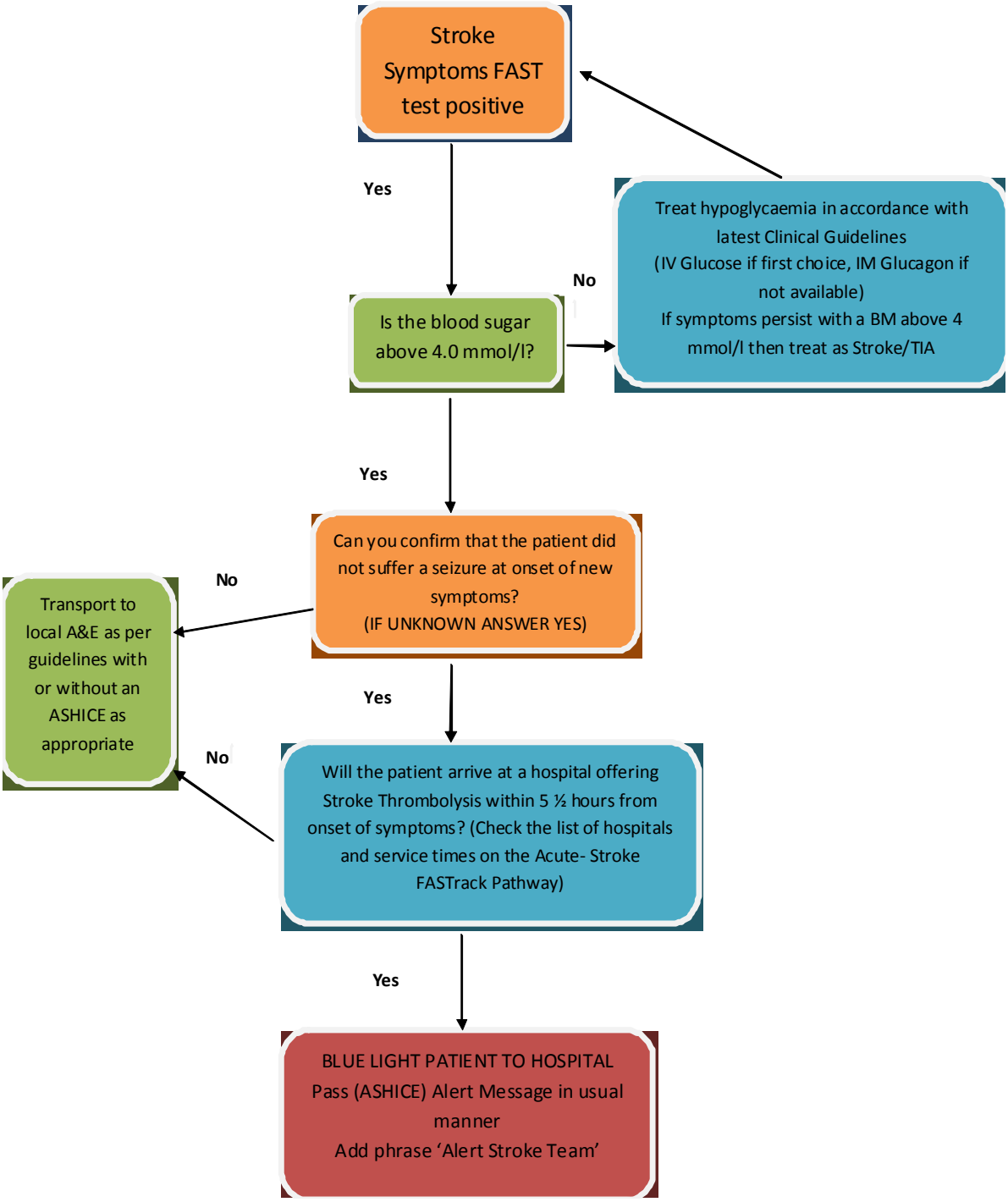
3.7 Innovation and Research & Development

- To be part of a research network, have a dedicated stroke research lead and actively participate in research (e.g. On the role of interventional radiology in treatment of acute ischaemic stoke or whether the increased intensity of therapy result in improved outcomes).
- Work with Stroke Research Networks
- Be open to performing and participation in national and international trials

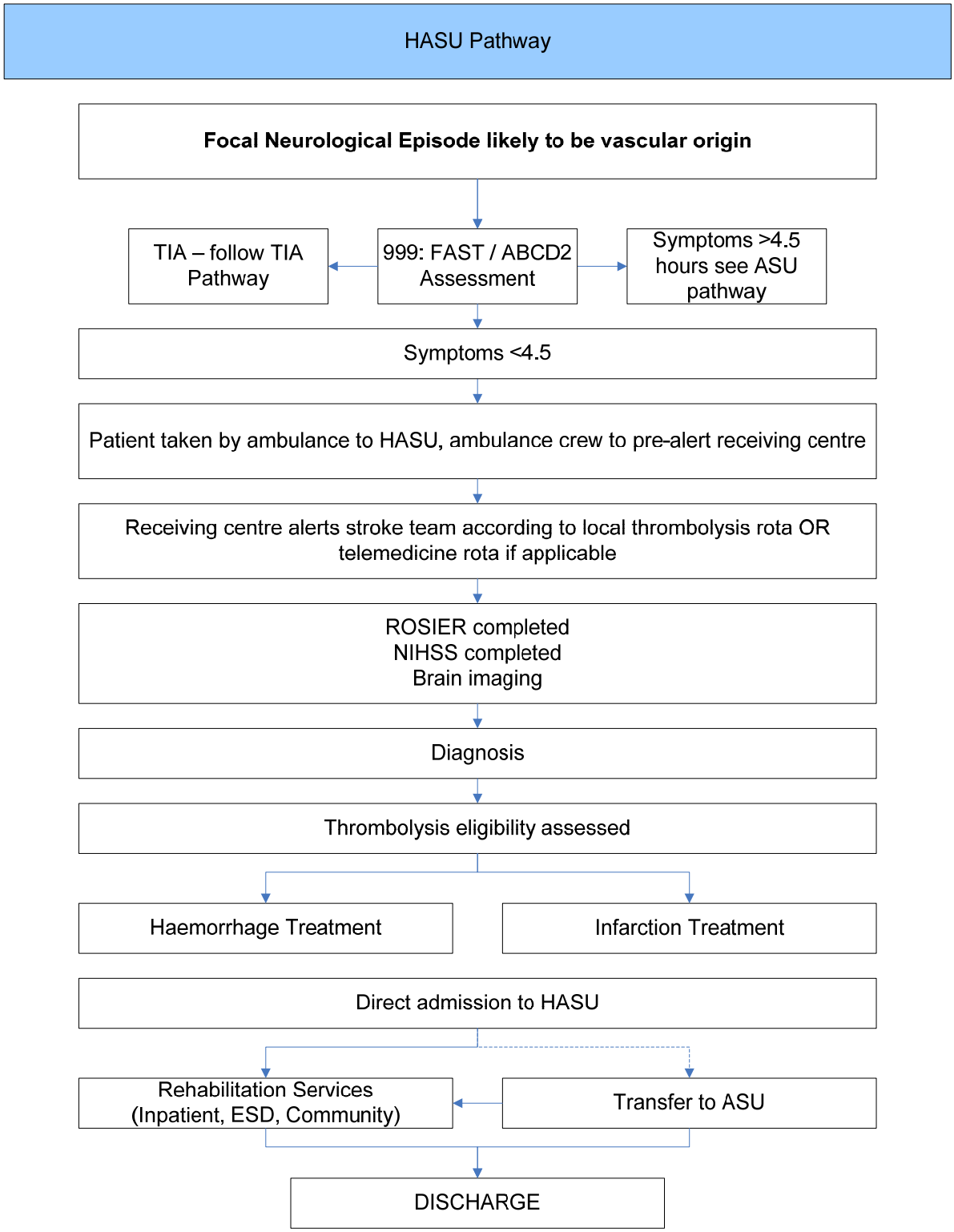
3.8 Care Pathway

The following section provides more specific details relating to some aspects of the care pathway; these are examples from across the South East Coast and are designed to offer an overview of the relevant pathways following the Service Scope criteria. They do not describe a model of care, which will be agreed locally between the commissioner and the provider of services.

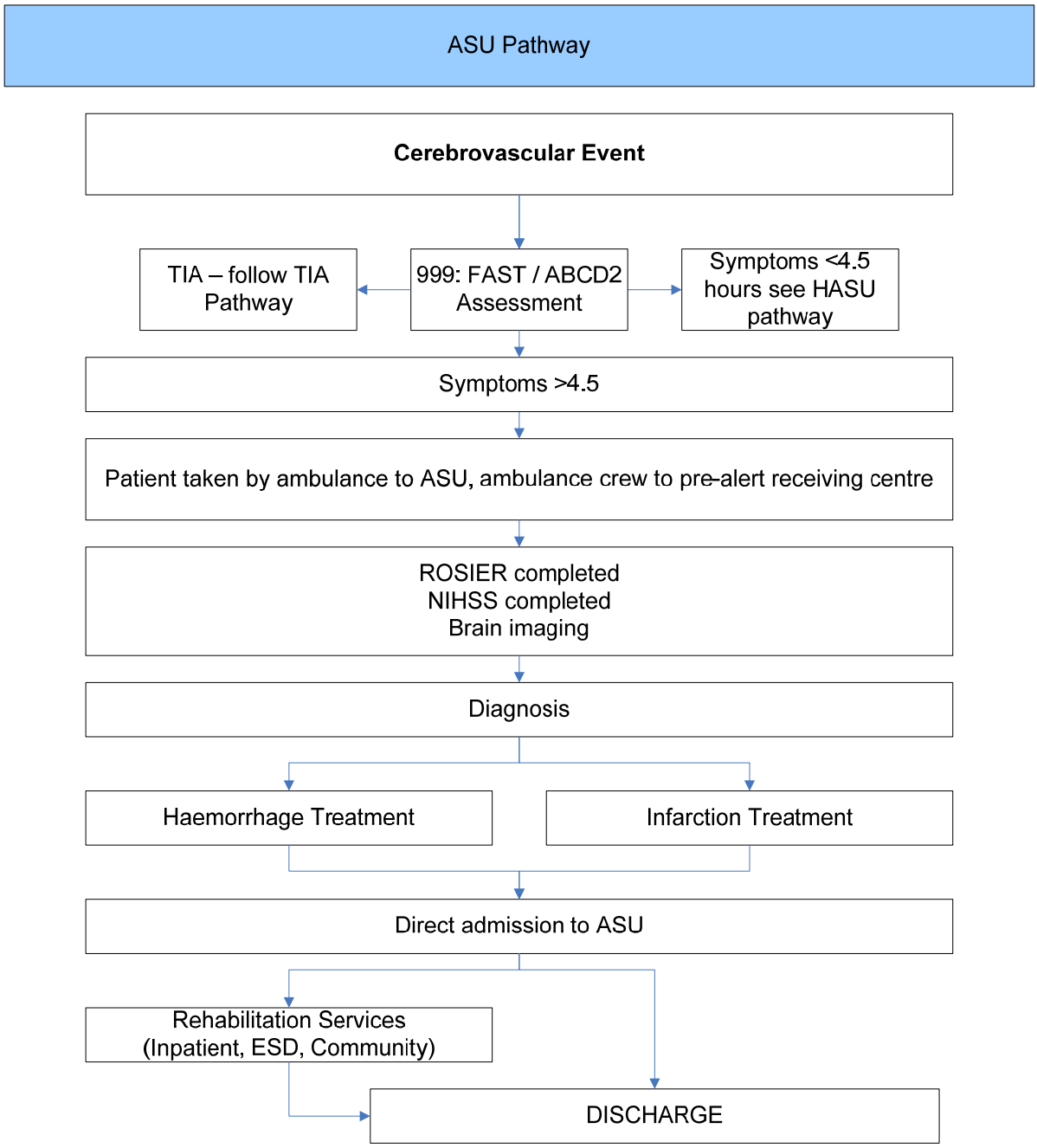
Acute Stroke – FASTrack Pathway v3 – 'Time is Brain' – March 2012



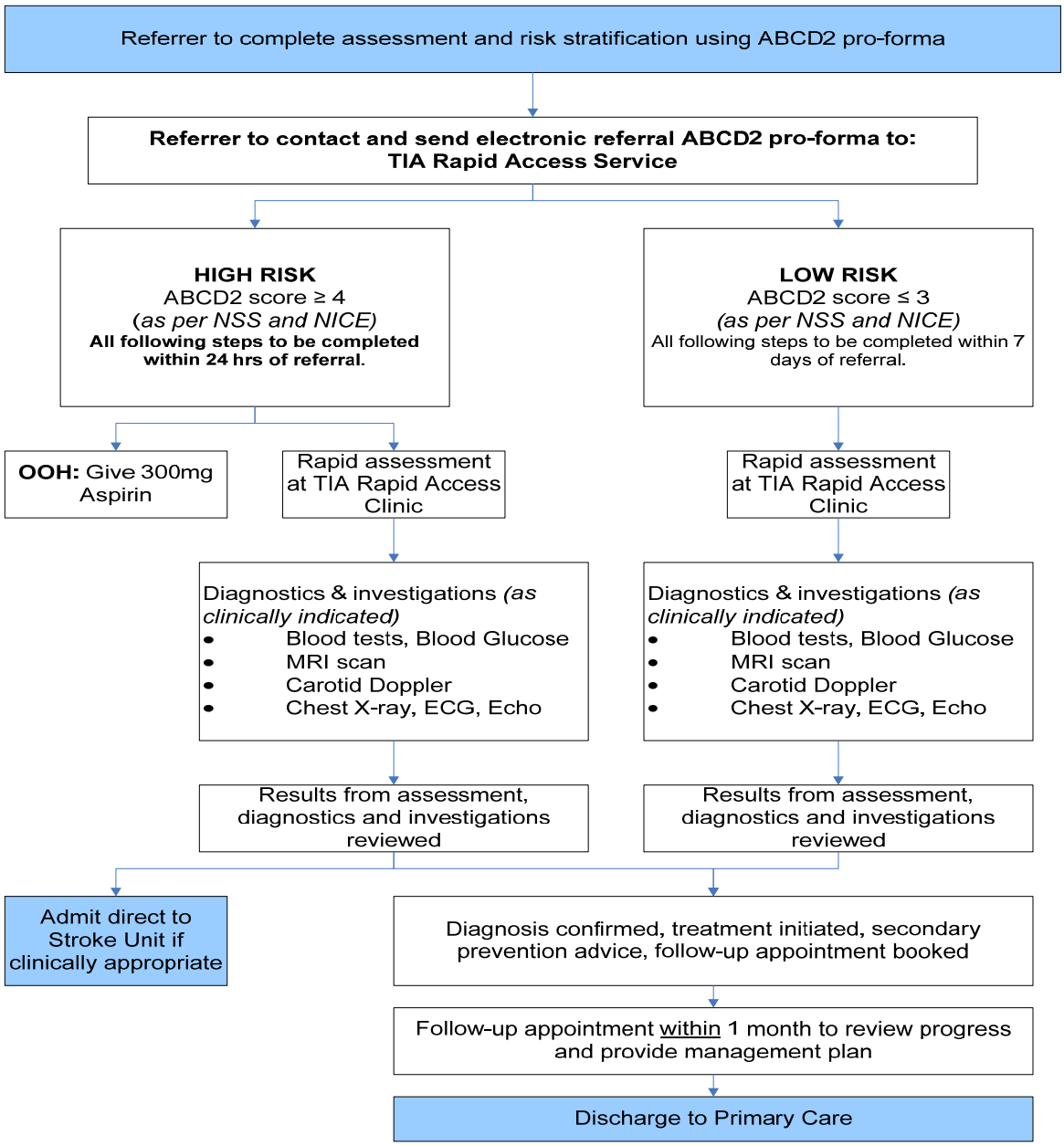
HASU Patient Pathway



ASU Patient Pathway



TIA Patient Pathway



ESD Patient Pathway (Sussex Examples)

Figure 1. Basic Sussex Stroke Care Pathway

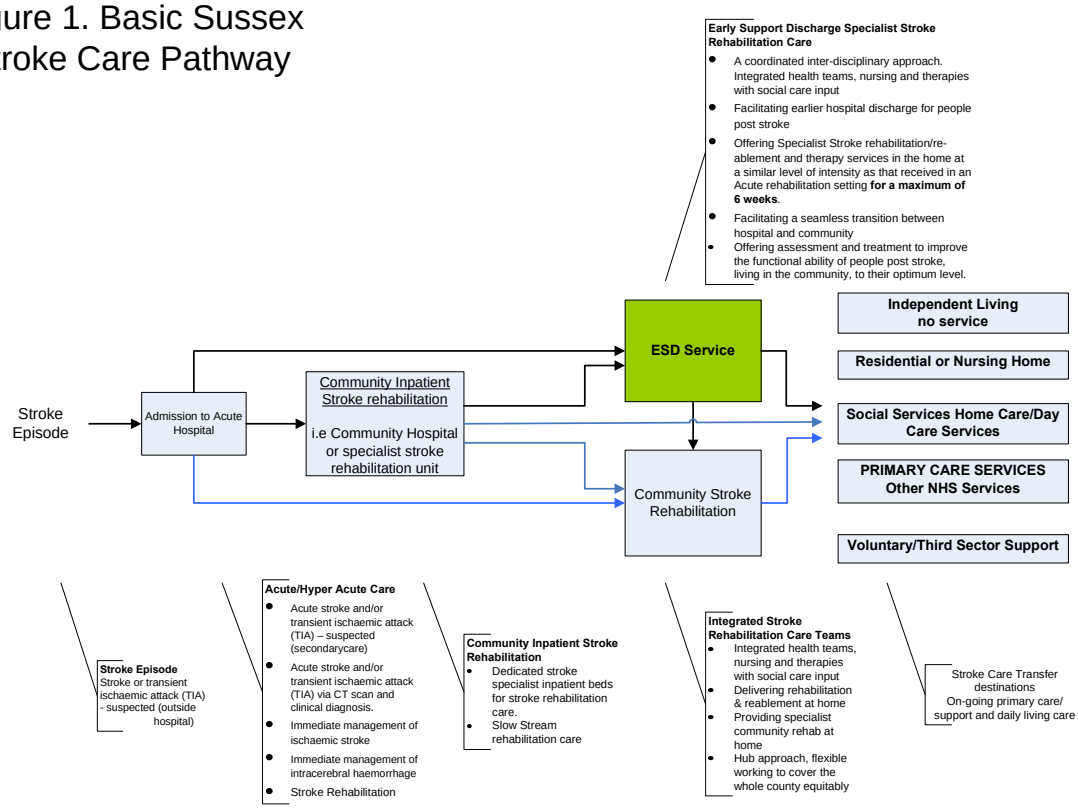
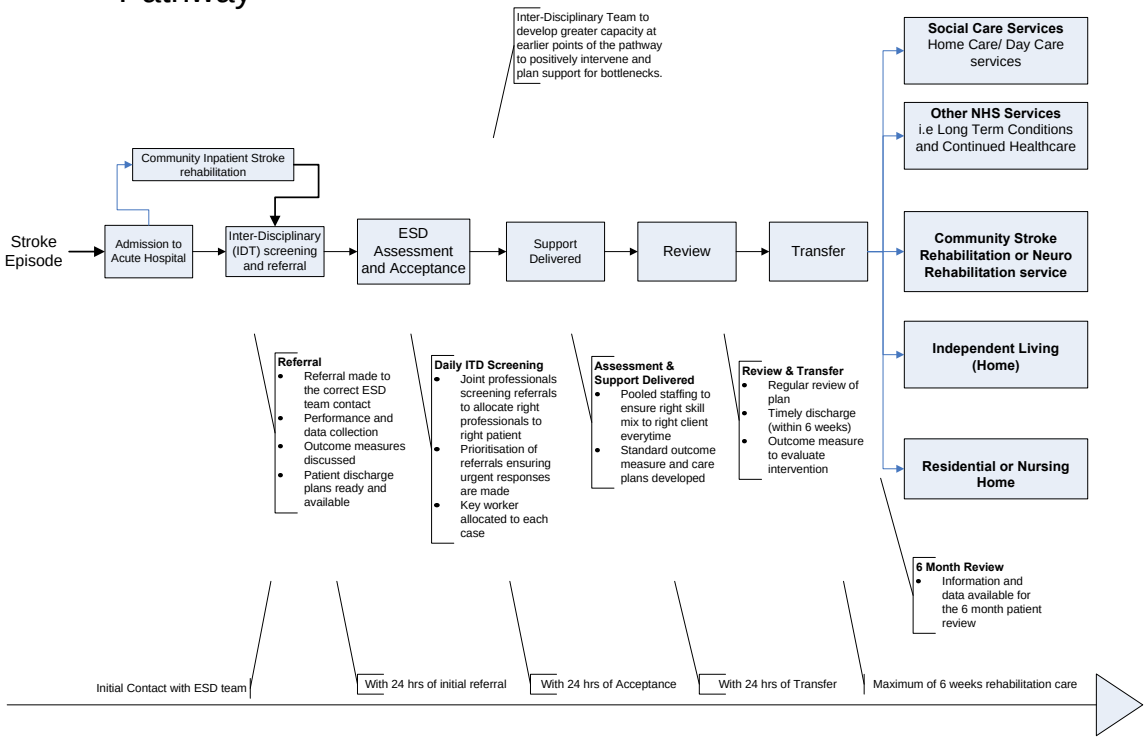
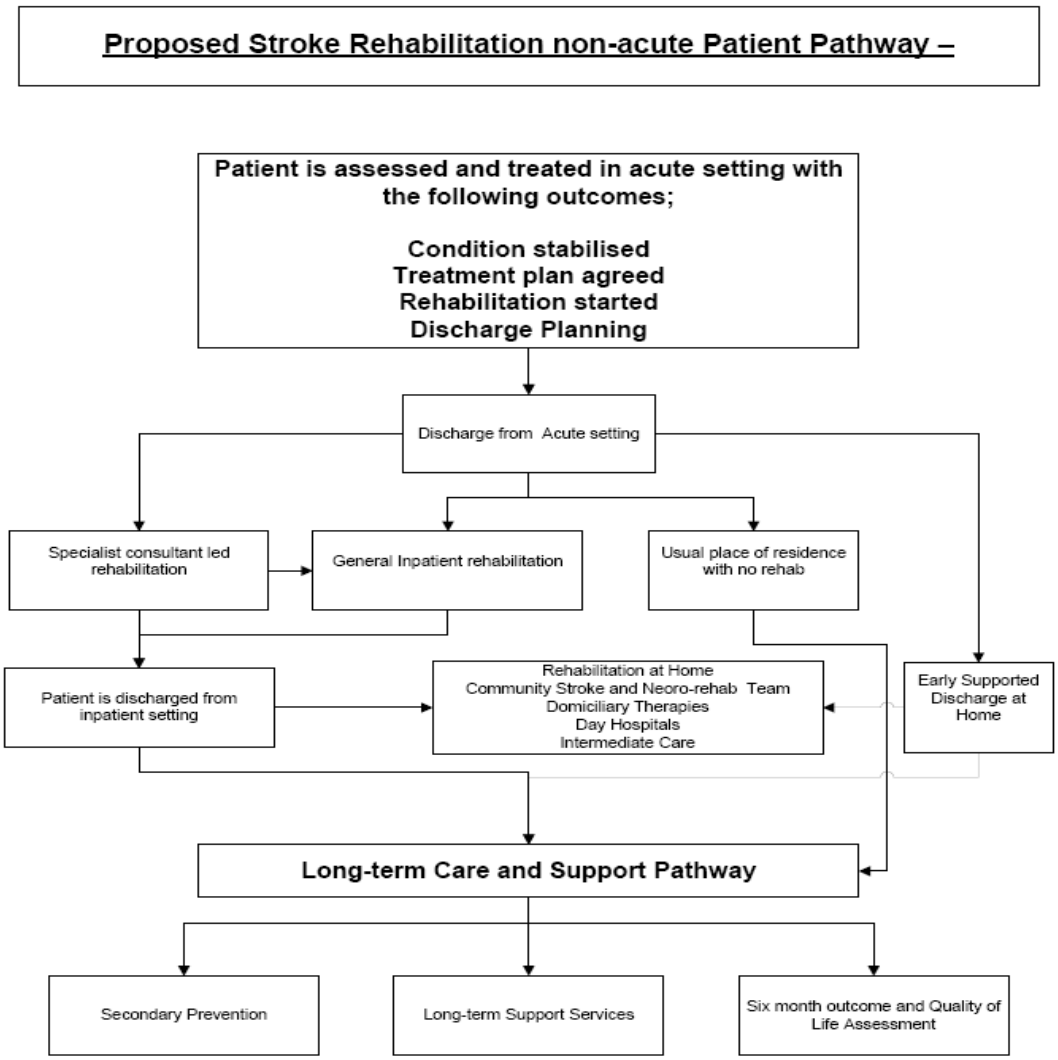


Figure 2. Sussex ESD Care Pathway



Stroke Rehabilitation Patient Pathway



3.9 Access to psychological support

- Where appropriate, patients should have timely access to psychological support for mood, behaviour or cognitive disturbance
- Screening of mood disturbance and cognitive impairment should occur within 6 weeks of diagnosis (see NICE Quality Standard) using a validated tool, with onward referral where clinically appropriate to specialist Clinical Psychology or other appropriate service

An appropriate service for the provision of psychological support for mood, behaviour and cognitive disturbance should be capable of assessing and managing individuals with mood, behaviour and cognitive disturbance and should comprise staff with special expertise and competence in assessing, treating and monitoring people with these needs e.g. clinical psychologist, psychiatrist, primary care mental health worker or be stroke specialists with additional expertise in managing people with these needs e.g. stroke specialist counsellor, stroke specialist practitioner or occupational therapist

Mood, behaviour or cognitive disturbance might include anxiety, emotionalism, depression, denial and difficulty coping emotionally and psychologically with the stroke which impedes recovery, problems with orientation and memory and inappropriate behaviour (ACSI, 2010)

3.10 Other referral pathways

It is recommended that clear referral pathways are in place for the referral/management of:

- Acute stroke patients who require support in an intensive/specialist care environment due to respiratory/cardiovascular/renal instability
- ICH
- Malignant MCA infarcts
- Acute posterior fossa haemorrhage
- Management of acute hydrocephalus complicating acute stroke
- Management of basilar artery occlusion
- Management of SAH
- Management of subdural haematoma
- Management of AVM
- Management of SOL
- Repatriating patients from out of area

If in-patient treatment is not considered necessary, subsequent management may continue on a day case basis with access to appropriate investigations.

3.11 End of Life Care

Patients who are recognised as being at the end of their life will be managed in accordance with the End of Life care Strategy. Where possible, people should be enabled to die in the place of their choice. Mechanisms should be in place to provide 'fast track' assessments for NHS Continuing Care, so that decisions can be made quickly. The Liverpool Care Pathway, or equivalent should be used routinely for people in the last few days or hours of life and after death. Specialist palliative care should provide advice and support to Stroke staff when needed to help manage complex symptoms. Appropriate support should be offered to carers and families, and their needs assessed. Accommodation should be suitable for end of life care.

3.12 Onward Referrals

Staff in the integrated stroke service will refer onto other services as deemed appropriate. This will include referrals to:

- Generic community services
- Specialist Neurological Rehabilitation Services
- Outpatient uni-disciplinary therapy services (e.g. physiotherapy, occupational therapy, speech and language therapy)
- Tertiary services, e.g. for posture management/specialised seating/wheelchair seating, assistive technology, return to work
- Out of area services (e.g. specialist cognitive rehabilitation services)
- Other health and social care professionals i.e. Medical/Nursing/Social Care and other allied health professionals as appropriate
- Voluntary services
- Palliative Care services

3.13 Transfers of care on discharge from specialist stroke service

On discharge from hospital patients and carers should have a joint care plan (Accelerating Stroke Improvement Metrics). This is documented evidence of an assessment and management plan which takes into account the patient's and carers' health and social care needs. The content of the plan should be jointly decided by both health and social care staff. Exceptions are those patients who have no documented health or social care needs, those not resident in the UK and those who refuse a health/social care assessment or intervention.

Carers of patients with stroke have a named contact for stroke information; written information about patient's diagnosis and management plan; and sufficient practical training to enable them to provide care (NICE Quality Standard, 2010).

It is anticipated that for the majority of patients most achievable goals of acute **specialist** stroke rehabilitation will be met within the scope of this specification with the following possible outcomes at the end of this period:

- The person with stroke wishes to exit from a formal rehabilitation programme
- No new achievable goals can be identified by the person with stroke and/or their carers
- There is a need for longer-term continuous or intermittent input from a local rehabilitation team necessitating handover to generic rehabilitation services or other neurological rehabilitation services (e.g. out-patient rehabilitation services)
- The person is awaiting an out-of-area placement (e.g. for specialist cognitive rehabilitation out with the remit of the this service)
- The person with stroke remains unwell and unable to participate in further rehabilitation
- The person requires long-term residential or nursing care
- Death

Patients discharged from hospital who have residual stroke-related problems should be followed-up within 72 hours by specialist stroke rehabilitation services for assessment and ongoing management (NICE Quality Standard, 2010). The specialist stroke service will also have in place a process for re-referral in the event of a problem arising out with the remit of a generic service.

3.14 Endpoint of Specialist Stroke Rehabilitation

The endpoint of specialist stroke rehabilitation should be determined by patient, carer and MDT agreement that goals incorporated into the care plan have been achieved.

If further maintenance rehabilitation is required, patients may be referred to generic rehabilitation teams or out-patient services. In such instances, the specialist stroke service will have discussed this transfer of care with the patient and clearly explained the reasons for transferring care. Agreed goals will be communicated to the team or therapist receiving the patient's care. Both the team or therapist and the patient and carers will fully understand and be prepared for any change in intensity of input and have a realistic expectation of the next phase of the rehabilitation process. If necessary, a phased transfer of care may be appropriate. The specialist stroke service should remain a point of contact for advice for generic teams/therapists and reassess patients at their request where there is unanticipated change in a patient's rehabilitation.

As patients come to the end of their need for rehabilitation provided by the specialist stroke service, maximum use should be made of relevant social and voluntary agencies to empower the patient and their families to continue along their chosen activities/ lifestyle path, enabling patients and families to become the experts in their ongoing care and development. Health and social teams should have good knowledge of local opportunities, and provide information to patients and carers to signpost them accordingly (e.g. information about returning to work).

There should be a locally negotiated protocol to ensure that before a patient is discharged out of a hospital setting the following has taken place:

- patients and families are fully prepared and have been fully involved in planning discharge
- general practitioners, primary healthcare teams and Adult Services are all informed before or at the time of discharge
- all equipment and support services necessary for a safe discharge are in place
- patients and families are given information about and offered contact with appropriate statutory and voluntary agencies (e.g. The Stroke Association Communication Support Service)

4.3 Geographic coverage/boundaries

The service receiving the patients is responsible for ensuring that these patients are managed in a timely and appropriate way as set out above.

4.4 Location(s) of Service Delivery

Locations to be determined with providers by agreement with the commissioners. Specified locations for the hyper-acute stroke unit, acute stroke unit, rehabilitation stroke unit(s) and ESD service must be able to comply with the requirements set out in this specification.

4.5 Days/Hours of operation

All hyper-acute stroke units will be delivering a 24/7 thrombolysis service for their patients. All acute stroke units will accept patients 24/7. All rehabilitation stroke units will accept patients 7 days per week. The days and hours of operation of the ESD service will be determined locally by agreement with the commissioners (see 2.1).

100% of patients referred to and accepted by the ESD service will have face to face contact with a member of the team within 24 hours of discharge.

4.6 Referral criteria & sources

- FAST Positive response - All patients with signs and symptoms of an acute stroke will be assessed by ambulance crews using FAST.
- Stroke patients who are being assessed by the ambulance crews whose confirmed onset of symptoms is less than four and a half hours from the time of assessment are to be directly taken to Hyper-acute Stroke Centre.
- All other patients to be taken directly to the nearest Acute Stroke Centre.
- Paramedic service to link with receiving stroke unit - Alert the Stroke Unit/Emergency Department (ED) to potential admission, ED to alert stroke unit / team to potential admission. Immediate assessment by appropriately trained clinician in delivery of hyper-acute stroke care on arrival, or in their absence by the on call medical team.
- Validated screening instrument to be used in assessment of patients (e.g. ROSIER).
- For those suspected of TIA ABCD2 scoring tool for referral to clinic within 24 hours for Acute TIA cases and 7 days for non-Acute TIA.

4.7 Referral route

- Direct access via the Ambulance Service
- TIA clinics
- Primary Care General Practitioners
- Out of hours services
- Walk in Centre
- Emergency Department - if no direct admission to a stroke unit
- General Medical Wards

4.8 Exclusion criteria

All patients who have had a stroke should be managed in line with the pathways and models outlined. However, stroke patients with a dominant co-morbidity may be treated on that condition's pathway. Support for this patient will be given by the stroke unit.

5. Transfer of and Discharge from Care Obligations

- Non-local patients treated at the hyper-acute stroke centre should be repatriated within 72 hours, and within 24 hours of the hyper-acute stroke centre notifying the acute stroke centre
- Transfer to another in-patient setting or into early supported discharge would ideally occur between 7 – 12 days
- When transferred from secondary care to Early Supported Discharge or primary

care, referral to a local stroke care coordinator should be made
- Planning for discharge should start early within the pathway, involve the individual, their family with health and social care working in partnership with other agencies such as housing, so avoiding delays in discharge
- Planning for discharge should include consideration of medicines management issues
- Protocols for transfer back into community in agreement with the community health care team, including transfer of care documentation and follow up information
- Patients should receive copies of their own joint discharge summaries.
- If a patient is being transferred home then their GP should be informed of this prior to them leaving hospital
- There should be strong relationships between the stroke unit and social and community services to allow for seamless transfer of care across organisation and locations
- Stroke review at 6 weeks post discharge to final destination. The relevant MDT will attend or provide assessment information summary for this review as appropriate
- Pathways to be formalised with social care to ensure that where patients do not meet their rehabilitation potential or their daily living function deteriorates post discharge from rehabilitation, they are able to access long term care
- A discharge summary should be provided to the patient's GP within 24 hours of discharge. These letters/summaries should also be copied to patients

6. Self-Care and Patient and Carer Information

In accordance with National Clinical Guidelines (NICE 6.1.1), patients should always be informed of realistic prospects of recovery or success and should have realistic goals set. The nature and consequences of a patient's impairments should always be explained to the patient (and to the family), and if necessary and possible they should be taught strategies or offered treatment to overcome or compensate for any impairment affecting activities or safety, or causing distress.

- Patients will be given information prior to discharge regarding contact with appropriate local and statutory agencies.
- The needs of those who do not have English as their first language should be taken into account.
- The services will be to support patients to make choices about their care, including those with perceptual and cognitive difficulties, as well as those with speech impairments.
- Where appropriate, the patient / carer has an education plan that is appropriate to their condition
- Information will be given in a timely way
- Written literature will comply with national standards, if available

7. Quality Requirements

Quality					
Identifier and source	**Indicator**	**Target**	**Threshold**	**Method of measurement**	**Consequence of breach**

8. Activity

8.1				
Activity Performance Indicators	*Threshold*	*Method of measurement*	*Consequence of breach*	

8.2 Activity Plan

8.3 Capacity Review

9. Prices & Costs

9.1 Price

Basis of Contract	Unit of Measurement	Price	Thresholds	Expected Annual Contract Value
National Tariff plus Market Forces Factor				
Non-Tariff Price (cost per case/cost and volume/block/other)*				
Total		**£**		**£**

**delete as appropriate*

9.2 Cost of Service by commissioner

Total Cost of Service	Co-ordinating PCT Total	Associate PCT Total	Associate PCT Total	Associate PCT Total	Total Annual Expected Cost
£	**£**	**£**	**£**	**£**	**£**

Appendix A

Definition of 'Stroke Specialist and 'Physician with an interest in stroke'

Definition of a Stroke Specialist, adapted from British Association of Stroke Physicians (BASP) specification

A **Stroke Specialist** is a physician with specialist skills in stroke. A stroke specialist has expertise in all 3 areas of stroke management (Prevention, Acute Stroke, Stroke Rehabilitation). To be regarded as a specialist the practitioner has to fulfil 7/7 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 h)
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)
7. Organise and attend local thrombolysis governance meetings

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Definition of a Physician with an interest in stroke, adapted from BASP specification

A **physician with an interest in stroke** has stroke specific skills in addition to their main area of expertise. To be regarded as a physician with stroke skills the practitioner has to fulfil 7/7 of the following criteria:

1. Evidence of specific training in at least one aspect of stroke medicine (Prevention, Acute stroke, Stroke Rehabilitation) relevant to their role in the stroke service.
2. Evidence of specific training in stroke thrombolysis
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 the aspect of stroke medicine they are practising in.
5. Attendance of at least one stroke specific training event and evidence of CPD in Stroke medicine.
6. Attendance at local thrombolysis governance meetings
7. Active involvement in the management of stroke patients on a regular basis.

Version	Sent To	Comments	Date	Author
Draft	Network Managers, Felicity Dennis, Julia Buck, Stephen Duckworth	Joint Service specification for commissioners across the SEC – created by merging Surrey, Sussex and Kent Service Specifications for the Stroke Pathway	12 April 2012	Mark Tearle (Sussex) and David Watts (Surrey)
Draft v.1.0	Network Managers, Felicity Dennis, Julia Buck, Steven Duckworth and Steve Williams	Minor amendments made (see track changes) from comments received via FD and SD 2.1.3 Management of Transient Ischemic Attack (TIA referral and care pathway) Adapted from Surrey document.	30 April 2012 1 May 2012	Mark Tearle Cora Durkan
Draft v.1.1	Network Managers, Felicity Dennis, Julia Buck, Steven	Changes made from comments made by Felicity Dennis, agreed by Julia	24 May 2012	Mark Tearle

	Duckworth	Buck, including a change of name and an introduction. Version control box moved to end of the document to make way for 'Introduction and brief'.		
Draft v.1.2	Network Managers, Felicity Dennis, Julia Buck, Steven Duckworth	Format Changes; version control moved to the end. Now includes a full index. Addition of 'hypertension' and 'BP' information under 2.1.1. and 'Lifestyle' advice. Inclusion of "Life after Stroke" using the Surrey document as a basis for a community services model.	30th May 2012	Mark Tearle with input from David Watts (Surrey)
Draft v.1.3	Networks Managers Julia Buck- Sussex Felicity Dennis- Surrey Steven Duckworth- Kent Disseminated out to respective network links for feedback and comments – deadline for network appraisal 12th June 2012.	Added the word *DRAFT* to front Cover Changed brief to Executive Summary on front cover. Added in a bit about strengthening Commissioning from NHS Framework	1st June 2012	David Watts David Watts
Draft v.1.4	Networks Managers Julia Buck- Sussex Felicity Dennis- Surrey Steven Duckworth- Kent Ready for Network Board consideration.	Comments received with thanks from David Borer East Surrey LIT for Stroke, Sarah Bayes at Crawley Hospital and Dr Jo Osborne and Val Frost and Robyn Davies.	13 July 2012	Mark Tearle
Final Draft v.1.5	Network Managers Julia Buck - Sussex Felicity Dennis - Surrey Steven Duckworth – Kent cc. David Hargroves (SHA Clinical lead for Stroke) and David Watts (Surrey Stroke Network) Rajen Patel (SSN Clinical Lead)	• Revision of format. Avoids repetition where possible. Compared with EoE Stroke Services specification • Content and criteria remain the same as previous version • Additional Comments received • Development of Suggested ISSS KPI's	16th August 2012	Mark Tearle with input and support from Julia Buck
Final v.2.0	Sent to Sussex Network Board Copied to Surrey and Kent Networks for distribution respective stakeholder groups	Final version includes revision to Carotid Endarterectomy for TIA – advice received from David Hargroves, SHA Clinical Lead on wording	20th August 2012	Mark Tearle
Final With RCP 2102 Guidance	Kent and Sussex Stroke Network Managers and Clinical Leads	Additional revision for definition of 'Specialist', Carotid Endarterectomy and Imaging response times Additional sentence regarding referral to Orthoptist services (requested by Felicity Dennis)	30th October 2012	Mark Tearle

Surrey Heart and Stroke Network

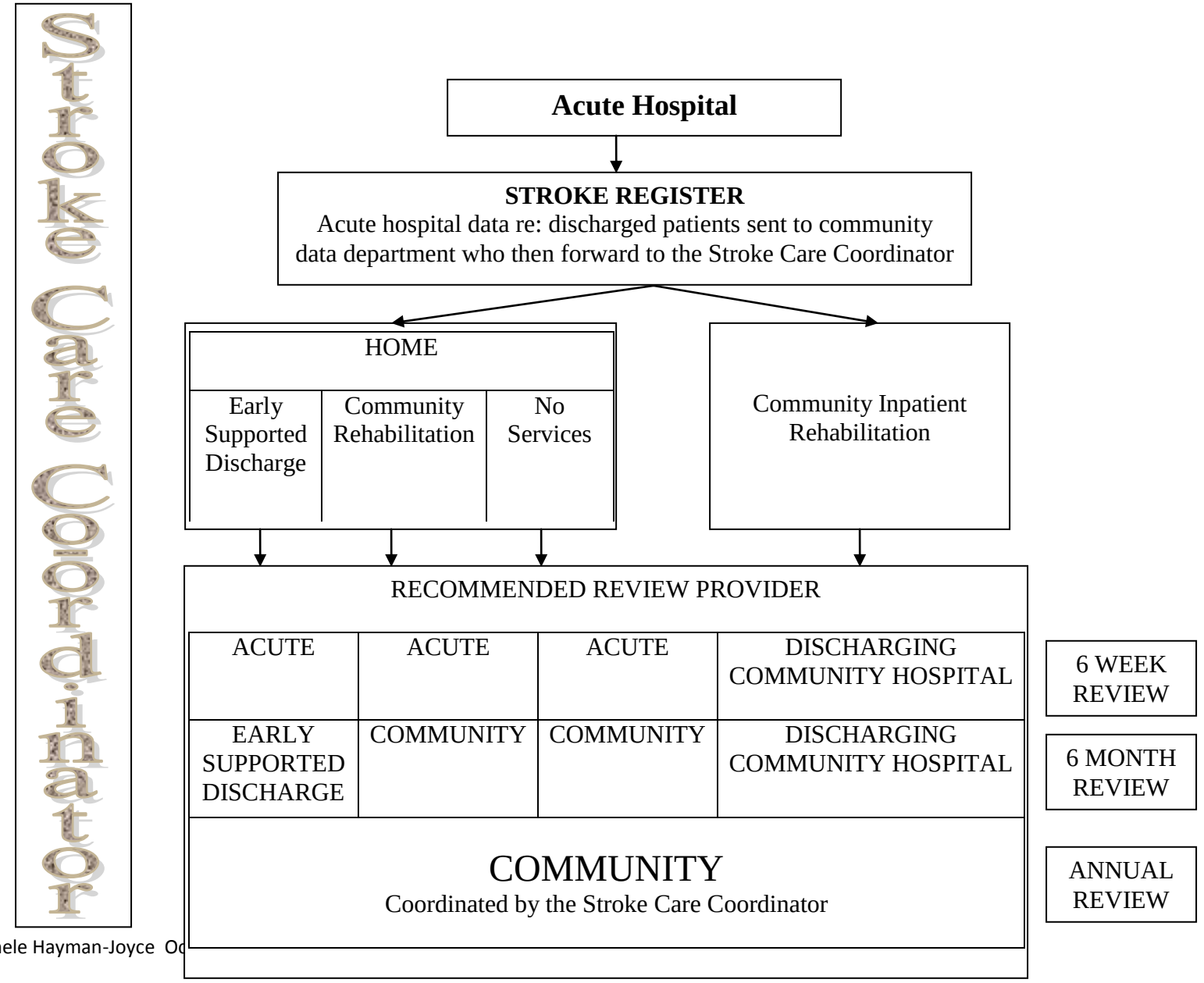
Network Stroke Long Term Review Delivery Model

Review Type	Provider	Model
6 week review following acute admission	Acute trust	Consultant led MDT clinic service at the acute trust
6 week review following community inpatient	Community provider	Specialist Clinic at community hospital
6 month review	Community provider	Telephone, MDT clinic or home visit option depending on patient need led by health professional deemed most appropriate to patient needs
Annual review ***(12 months post 6 month review and offered annually thereafter)	Community provider	Telephone, MDT clinic or home visit option depending on patient need health professional deemed most appropriate to patient needs
Care home residents	Community provider	MDT clinic or reviews undertaken in care homes

Effective delivery requires the following elements to be in place:

- A live **Stroke Register** within community services which is fed stroke patient admission information by the acute trust.
- A stroke lead (**Stroke Care Coordinator** role) within community services to oversee the organisational framework for the implementation of patient long term review

Agreed August 2011



Michele Hayman-Joyce Oc

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Role Definition

Stroke Care Coordinator supported by an admin assistant

A role which focuses on the level of individual patients

- Specialist clinical resource
- Review of care of patients and co-ordinate and transfer of care through the various stages of the patient journey
- Co ordinate review clinic and pathway
- Single point of access for all patients and carers and professionals throughout the pathway (as recommended in the NSF older people

Stage 1

The Stroke Care co-coordinator maintains strong links with multi agency colleagues,

Stage 2

Data regarding discharged patients is sent to community information services. Data is forwarded to the local stroke coordinator to update the stroke register.

A record is kept of where the patient is discharged to and who will complete the six month assessment. The six month assessment may be carried out by the specialist in patient re habilitation units or the STED team.

Once a patient is discharged from specialist inpatient rehab unit the stroke care coordinator will be sent a discharge summary to ensure that ongoing reviews are appropriately managed.

The Stroke Care Coordinator will ensure that all other patients are offered a review at six months post hospital discharge..

Stage 3

Repatriation out of area or out of NHS – these patients would not come onto the caseload of the Stroke Care Coordinator.

The Appropriate setting and professional/s to undertake subsequent reviews will be overseen by the Stroke Care Coordinator and forward planned.

Following annual review or self referral at any other stage of the pathway the patient or their carer may be referred back to a professional for more treatment or signposted to other services/organisations:

APPENDIX D

Quality						
Identifier and source*	**Phase**	**Indicator**	**Target**	**Threshold**	**Method of measurement**	**Consequence of breach**
SSNAP	Pre-Hospital	Percentage of Stroke patients transferred by ambulance where a validated tool (FAST) was used to determine Stroke	100%			
SSNAP	Pre-Hospital	Percentage of patients admitted to acute services within 4 hours of symptom onset				
SSNAP	Pre-Hospital	Percentage of FAST positive patients with a 'call to door' time <60 mins				
ASI 5/IPMR	TIA	TIA cases with a higher risk of stroke who are assessed and treated within 24 hours of presenting to a healthcare professional				
IPMR	TIA	Number of people who are referred as having a TIA who are at higher risk of stroke				
Local	TIA	Proportion of people who have had a TIA and are low risk who are seen and treated within 7 days.				
UK Carotid Interventions Audit	TIA	Percentage of patients receiving carotid surgery within 7 days of symptom onset that triggered referral				
Local	TIA	Percentage of patients receiving carotid surgery within 48 of symptom onset that triggered referral				

Local	Imaging	24 hour access to Brain imaging				
ASI 4A	Imaging	Imaging of patients within next slot or 1 hour				
ASI 4B	Imaging	Imaging of patients within 12 hours				
SSNAP	HASU	Percentage of all stroke patients admitted to hyper acute unit within 4 hours of arrival to hospital				
SSNAP	HASU	Percentage of patients seen and assessed within 30mins of admission by a specialist in stroke				
SSNAP	HASU	Percentage of appropriate patients having thrombolysis within 60 mins of entry (door to needle time)				
SSNAP	HASU	Percentage of appropriate patients having thrombolysis within 45mins of entry (door to needle time)				
SSNAP	HASU	Percentage of appropriate patients having thrombolysis within 30 mins of entry (door to needle time)				
SSNAP	HASU	Percentage of Stroke patients, identified as ineligible for thrombolysis, scanned within 12 hours of admission				
SSNAP	HASU	Percentage of all conscious stroke patients to receive a swallow screen within 4 hours of admission				
SSNAP	HASU	Proportion of patients with stroke assessed and managed by stroke nursing staff				

SSNAP	HASU	Percentage of all stroke admissions thrombolysed				
ASI3	HASU	Percentage of patients who spend at least 90% of their time on a stroke unit				
Local	HASU	Percentage of Carotid imaging performed within 24 hours for patients suitable for carotid endarterectomy				
SSNAP	Acute Stroke care	Percentage of patients with agreed rehabilitation goals within 5 days of admission with appropriately formatted copy of goals given to them				
Local	Acute Stroke care	Percentage of appropriate patients weighed (or alternative weight estimate if weighting not appropriate) within 72 hours of admission to acute stroke care				
SSNAP	Acute Stroke care	Percentage of incontinent patients having continence management plan within 7 days of admission				
SSNAP	Acute Stroke care	Percentage of appropriate patients to receive an occupational therapy assessment within 72 hours of admission to acute stroke care				
SSNAP	Acute Stroke care	Percentage of appropriate patients to receive physiotherapy assessment and treatment within 72 hours of admission to acute stroke care				
SSNAP	Acute Stroke care	Percentage of appropriate patients to receive speech and language assessment and				

		treatment within 72 hours of admission to acute stroke care				
SSNAP	Acute Stroke care	Percentage of appropriate patients receiving 5 x 45mins face-to-face sessions per week each of occupational therapy as necessary				
SSNAP	Acute Stroke care	Percentage of appropriate patients receiving 5 x 45mins face-to-face sessions per week each of speech and language therapy as necessary				
SSNAP	Acute Stroke care	Percentage of appropriate patients receiving 5 x 45mins face-to-face sessions per week each of physiotherapy as necessary				
SSNAP	Acute Stroke care	Percentage of patients receiving cognitive/perceptual screening within six weeks if required				
SSNAP	Acute Stroke care	Percentage of patients receiving a continence assessment before discharge				
ASI 7	Acute Stroke care	Percentage of appropriate patients and carers provided with joint care plan on discharge from hospital				
SNNAP	ESD	Earlier Supported Discharge for appropriate patients	40% of all admissions to Acute hospital			
Local	ESD	Reduced Acute Hospital Length of Stay	7 days (average Length of stay) for the cohort of patients assessed as appropriate for ESD care			

Local	ESD	ESD Impact on Acute Hospital Length of Stay	A reduction of 3 days (against the baseline of 6 months from the date of the start of ESD team start) to the Average length of stay in an acute unit ALL patients			
Local	ESD	Percentage of Person Feedback will be gained through quarterly audits.	90% of respondents to Questionnaire. Patient satisfaction with service			
Local	ESD	Patients will be seen initially within the target response times	100%			
Local	ESD	Every person will have an individual Care Plan	100%			
Local	ESD	Every person will have documented outcomes using agreed measure	100%			
Local	Stroke Specialist Community Rehabilitation	Percentage of stroke survivors contacted by a member of community rehabilitation team within one working day and assessed within 72 hours				
SSNAP	Stroke Specialist Community Rehabilitation	Percentage appropriate stroke survivors whose treatment programme started within 7 days of assessment where agreed as part of care plan				
SSNAP	Stroke Specialist Community Rehabilitation	Percentage of stroke patients that are reviewed six weeks after leaving hospital				

ASI8/ SNNAP	Long Term Care	Proportion of stroke patients that are reviewed six months after leaving hospital	95%			
ASI6/ SNNAP	Long Term Care	Percentage of stroke survivors that received psychological support for mood, behaviour or cognitive disturbance within six months	40%			
SSNAP	Long Term Care	Percentage of patients with Modified Rankin score at discharge	100%			
SSNAP	End of Life	Percentage mortality of stroke patients at 1 month following a stroke (30 days mortality rate)				

***Identifier and source:** Those marked 'Local' require a separate data collection exercise. These metrics are believed to be important components of the care pathway. Examples of Local Datasets designed to support the collection of relevant data are highlighted in section 3.5 Data Collection and Monitoring.