

Report to: **East Sussex Health Overview and Scrutiny Committee (HOSC)**

Date: **13 September 2012**

By: **Assistant Chief Executive**

Title of report: **Shaping our Future – HOSC evidence gathering process**

Purpose of report: **To set out progress with the Committee’s evidence gathering process and to highlight key documentary evidence providing context for this meeting.**

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## **RECOMMENDATIONS**

**HOSC is recommended to:**

- 1. Note the documentary evidence within the appendices and raise questions with witnesses as appropriate during the evidence gathering process.**
  - 2. Note the progress of the evidence gathering process.**
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### **1. Background**

1.1 In June 2012 HOSC considered proposals for the reconfiguration of three services arising from the East Sussex Healthcare NHS Trust (ESHT) Clinical Strategy, known as ‘*Shaping our Future*’. The proposals, put forward by NHS Sussex in conjunction with ESHT and the emerging Clinical Commissioning Groups, involve reconfiguration of these specific services:

- Hyper acute and acute stroke care
- Emergency and higher risk elective (planned) general surgery
- Emergency and higher risk elective (planned) orthopaedic surgery

1.2 The proposals are set out in full in a public consultation document available from [www.esht.nhs.uk/shapingourfuture](http://www.esht.nhs.uk/shapingourfuture). Copies have previously been circulated to all HOSC Members. The public consultation process began on 25 June and closes on 28 September 2012.

1.3 In June, HOSC determined that the proposed changes constitute ‘substantial variation’ to services, requiring formal consultation with the Committee under health scrutiny legislation. HOSC agreed to undertake a detailed review of the proposals from July-October 2012 in order to prepare a report and recommendations based on evidence gathered from a range of sources.

1.4 The final decision on any change to the configuration of services will be made by the Board of NHS Sussex as the body which exercises statutory responsibility for the commissioning of services until April 2013. The NHS Sussex Board will be informed by the views of the Clinical Commissioning Groups, who will take over commissioning responsibilities from that date, and the view of the ESHT Board. Decisions will be made following consideration of the outcomes of the consultation process. This includes consideration of HOSC’s report.

### **2. HOSC evidence gathering process**

2.1 Four Committee meetings have been arranged between July and October to enable HOSC to seek a range of views on the proposals from key stakeholders and to agree a report summarising the Committee’s findings. The first evidence gathering meeting took place on 26 July 2012. This focused on cross-cutting issues and views, including finance and perspectives from the Ambulance Trust, Clinical Commissioning Groups, Campaign Groups, Public Health and the Strategic Health Authority.

2.2 The planned areas of focus for the remaining three meetings are summarised below.

<b>Date of meeting</b>	<b>Theme/focus</b>
13 Sept 2012 10am – 1.40pm	<ul style="list-style-type: none"> <li>• Stroke care</li> <li>• Community services (capacity to support changes to acute care)</li> <li>• Voluntary sector perspectives</li> </ul>
4 Oct 2012 10am – 1.40pm	<ul style="list-style-type: none"> <li>• Orthopaedics</li> <li>• General surgery</li> <li>• Links to emergency care</li> <li>• Travel and transport</li> </ul>
30 Oct 2012 10am – 1pm	<ul style="list-style-type: none"> <li>• Outcome of public consultation</li> <li>• Review of consultation process</li> <li>• Consideration of HOSC's report</li> </ul>

2.3 A range of stakeholders have been invited to attend each meeting to aid the Committee's understanding of the services subject to change and the potential impact of the proposals. To make most effective use of HOSC's time, some further stakeholders have been invited to submit written comments to the Committee for consideration at the 4 October meeting.

2.4 In addition, any unsolicited written submissions received by HOSC are being collated monthly into a supplementary information pack which is circulated to Committee Members and published on the HOSC website [www.eastsussexhealth.org](http://www.eastsussexhealth.org).

### 3. Documentary evidence

3.1 In addition to discussion with stakeholders, there are a range of key documents which may be helpful to the Committee's consideration of the proposals.

3.2 The following documents are attached to provide general context to the discussion with attendees at this meeting:

- **Appendix 1:** Case for change: stroke services (extract from the pre-consultation business case (PCBC) produced by NHS Sussex and ESHT. Full PCBC available from [www.esht.nhs.uk/shapingourfuture](http://www.esht.nhs.uk/shapingourfuture))
- **Appendix 2:** extracts from the South East Coast Integrated Stroke Service Specification (extracts which focus on acute stroke care – the full specification is available on request)

3.3 The above local documents draw on key national guidance, available online, including:

- National Stroke Strategy, Department of Health, 2007: [http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_081062](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_081062)
- National Institute for Health and Clinical Excellence (NICE) guidance:
  - CG68 Clinical Guideline <http://publications.nice.org.uk/stroke-cg68>
  - QS2 Quality Standard <http://publications.nice.org.uk/stroke-quality-standard-qs2>
- National Stroke Sentinel Audit 2010: <http://www.rcplondon.ac.uk/resources/national-sentinel-stroke-audit>
- National Clinical Guidelines for Stroke, Royal College of Physicians, 2008: <http://www.rcplondon.ac.uk/resources/stroke-guidelines>
- Stroke Service Standards, British Association of Stroke Physicians, 2010: <http://www.basp.ac.uk/resources/resources.aspx>

3.4 Written reports specific to individual agenda items are attached separately.

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(Please contact for paper copies of any of the documents mentioned above)



**EXTRACT FROM:**

**East Sussex Healthcare NHS Trust and NHS Sussex**

**SHAPING OUR FUTURE: CLINICAL STRATEGY:**

**PRE-CONSULTATION BUSINESS CASE**

**Draft Version: 6.3**

**Date: 2<sup>nd</sup> July 2012**

# 1. CASE FOR CHANGE: STROKE SERVICES

## Clinical case for change

1.1 Currently ESHT stroke services are not able to provide the best possible care for patients, this leads to poorer outcomes and longer lengths of stay for patients.

1.2 Evidence demonstrates that significant improvements in outcomes can be made by providing stroke care in a dedicated specialist unit with a strong emphasis on early assessment and clear patient pathways with specially trained staff available round the clock. Specialist staff should be available to identify patients with stroke symptoms and drive them through diagnostics, admission and treatment protocols as well as providing support for carers. Patients finishing their acute phase and needing further rehabilitation should be provided with care in their own home or a community inpatient facility according to their needs.

1.3 The NHS Stroke Improvement Programme published standards in April 2011 known as the Accelerating Stroke Improvement (ASI) metrics. Currently, the service provided in the Trust is not meeting these quality indicators. For example in Q3 of last year only 27.3% of patients were admitted directly to a stroke unit within 4 hours of arrival, the target is 90%. Only 16% of patients were scanned with brain imaging within one hour (target 50%) and only 72% within 24 hours (target 100%). Access to other diagnostics such as CT and endoscopy is also below the desired levels. In addition, the average time patients spend in hospital (length of stay) is more than it should be which can have a detrimental effect on patient care. The optimal length for the hyper-acute and acute stages combined is 10 days; currently the average for ESHT is 14.22 days

1.4 Reasons for this poor performance against national targets and longer than desirable lengths of stay are multifactorial but a common factor is the inability to provide a dedicated stroke unit with consistent seven day a week specialist staff able to ensure patients progress through the stroke pathway (timely imaging, medical review, admission to stroke ward and timely therapies assessment and provision).

1.5 Currently the Trust's stroke service is provided on a mixed general medical ward where hyperacute, acute and rehabilitation stroke care are delivered alongside care for other medical patients. The relatively low numbers of stroke patients admitted to each site means that although some specialist staff are available it is not possible to sustain sufficient numbers to meet the needs of patients 24 hours a day, seven days a week. This means that ESHT is not currently meeting the national guidelines for the required numbers of specialist staff.

1.6 A peer review in 2011 identified insufficient stroke consultants, with non-specialist physicians supporting the limited stroke consultant availability. A specialist stroke nurse is only available five days a week without any cover for leave. This leads to delays in recognition and treatment of stroke. Patients are not being provided with the daily therapy that they should be and there is a lack of access to psychology, potentially delaying their recovery of function.

1.7 To ensure specialist care can be delivered effectively there needs to be an increase in the number of stroke consultants and dedicated nursing and AHPs. Without a dedicated, specialist stroke unit it is difficult to attract the right specialist staff to deliver the highest quality care. The lack of a dedicated unit also reduces the opportunities staff have to gain experience in recognition and treatment of this condition and providing the service on wards that take general medical patients further reduces the opportunities for staff to develop and utilize their expertise.

1.8 Rehabilitation beds are provided in the community at the Irvine Unit in Bexhill but currently lengths of stay are longer than desirable and there are not enough rehabilitation beds available leading to long waiting lists. Additional community inpatient provision is required and the length of stay in rehabilitation can be reduced if more specialist and intensive rehabilitation is available.

1.9 Evidence shows that up to 30% of all patients should be able to return straight home with the support of early assisted discharge services. Additional investment is required in these services in order to deliver this service to all patients who would benefit from it.

1.10 Experience from London has shown that rationalisation of stroke services providing specialist hyperacute dedicated stroke units has dramatically increased numbers of patients receiving timely brain imaging, thrombolysis, physiotherapy, swallowing assessment and has reduced length of stay, whilst improving quality of life after a stroke and mortality.

1.11 A similar rationalisation in East Sussex with hyperacute and acute services provided on a single site is likely to produce similar improvements in patient outcomes. Reconfiguring the service will ensure a sufficiently large cohort of patients to justify the provision of all specialist services, improving outcomes for patients by increasing the early diagnosis, assessment and treatment and minimising length of stay. More patients will return home for their rehabilitation phase and those that require inpatient care will continue to receive this in dedicated community rehabilitation facilities at the Irvine Unit

## About Stroke

1.12 A stroke is the rapid loss of brain function that results from a disturbance in the blood supply to the brain. This can be due to ischemia (lack of blood flow) caused by blockage (thrombosis, arterial embolism), or leakage of blood (haemorrhage). As a result, the affected area of the brain cannot function, this may result in an inability to move one side of the face and/or one or more limbs on one side of the body, inability to understand or formulate speech, or an inability to see one side of the visual field.

1.13 A stroke is a medical emergency and can cause permanent neurological damage, complications and death. It is the leading cause of adult disability; risk factors for stroke include old age, hypertension (high blood pressure), previous stroke or transient

ischemic attack (TIA), diabetes, high cholesterol, smoking and atrial fibrillation. High blood pressure is the most important modifiable risk factor of stroke.

1.14 Stroke care can be divided into three phases; hyperacute (the first three days following the onset of the stroke), acute (the next seven days following the hyperacute phase) and rehabilitation. The first two phases are provided in the acute hospital setting with rehabilitation being commenced provided in a specialist community inpatient unit or in the patient's home.

### **Current service**

1.15 The current ESHT stroke service provides hyper acute and acute stroke care on both acute sites with an average length of stay (LOS) of 14 days. The acute hospital Stroke wards are not currently dedicated stroke units and provide care to a mix of medical patients.

1.16 Patients who have completed the acute phase of their care and are identified as requiring further stroke rehabilitation as an inpatient are usually cared for in the community stroke rehabilitation ward based at the Irvine Unit in Bexhill. Other patients can be discharged home following the acute phase.

1.17 Currently suspected stroke patients are identified either by the ambulance service or by the emergency department team. When possible the patient is then assessed by a nurse with specialist stroke skills who confirms a patient's eligibility for the stroke pathway.

1.18 The aim is that all stroke patients are transferred from emergency care departments directly to the acute stroke wards where specialised monitoring and assessment takes place.

1.19 For patients with catastrophic stroke and who are not expected to survive their stroke, the Liverpool Care Pathway for end of life care is used in discussion with the patient, their carers and family.

### **Thrombolysis**

1.20 There is a consultant led telemedicine 24/7 thrombolysis service provided on both sites for patients attending the emergency departments and patients who suffer a stroke whilst receiving care as an inpatient.

### **Transient Ischaemic Attack (TIA) service**

1.21 Currently both acute sites deliver a rapid access TIA service on five day per week only. Both GPs and the emergency department refer directly into this service, where patients with higher risk TIAs are assessed and appropriate investigations are performed within 24hrs of referral. Lower risk TIAs are seen within seven days<sup>1</sup>. Outside of

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<sup>1</sup> High risk and low risk TIAs are defined using the ABCD<sup>2</sup> score detailed in the National Stroke Strategy, 2007.

normal working hours all high risk TIA patients are admitted this does not follow national best practice and results in unnecessary hospital stays for patients.

### **Therapy**

1.22 Full multidisciplinary teams are based on the acute stroke wards. In line with national guidance, these teams ensure therapy assessments are undertaken and a therapy plan is in place and delivered as dictated by the patient's condition. When patients are medically fit and have completed their acute phase a discharge/rehabilitation plan is identified.

### **Rehabilitation**

1.23 Currently ESHT provides a combined hyperacute, acute and some rehabilitation service on the stroke wards with patients receiving some inpatient rehabilitation on the acute wards on the occasions when they have to wait for rehabilitation in the limited community bed provision at the Irvine Unit.

1.24 Early Supported Discharge operates six days a week at the Conquest (with plans to provide seven day service), and at Eastbourne they operate a seven day week service. This service provides up to 6 weeks of therapy treatment for patients in their own homes. Patients who require further support are referred to the Community Stroke Rehabilitation Teams and to the Stroke Association. Patients identified as requiring further inpatient rehabilitation and nursing care are referred via the Integrated Care Access Point (ICAP) to community beds and are allocated to the stroke rehabilitation unit based at the Irvine Unit. Once discharged from the Irvine Unit some patients are also referred to the Community Stroke Rehabilitation Team and the Stroke Association.

### **Activity**

1.25 In 2011/12 ESHT provided inpatient care for 773 people with a primary diagnosis of stroke<sup>2</sup>, and 264 people with Transient Ischaemic Attack (TIA). The current activity within stroke can be split into the following:

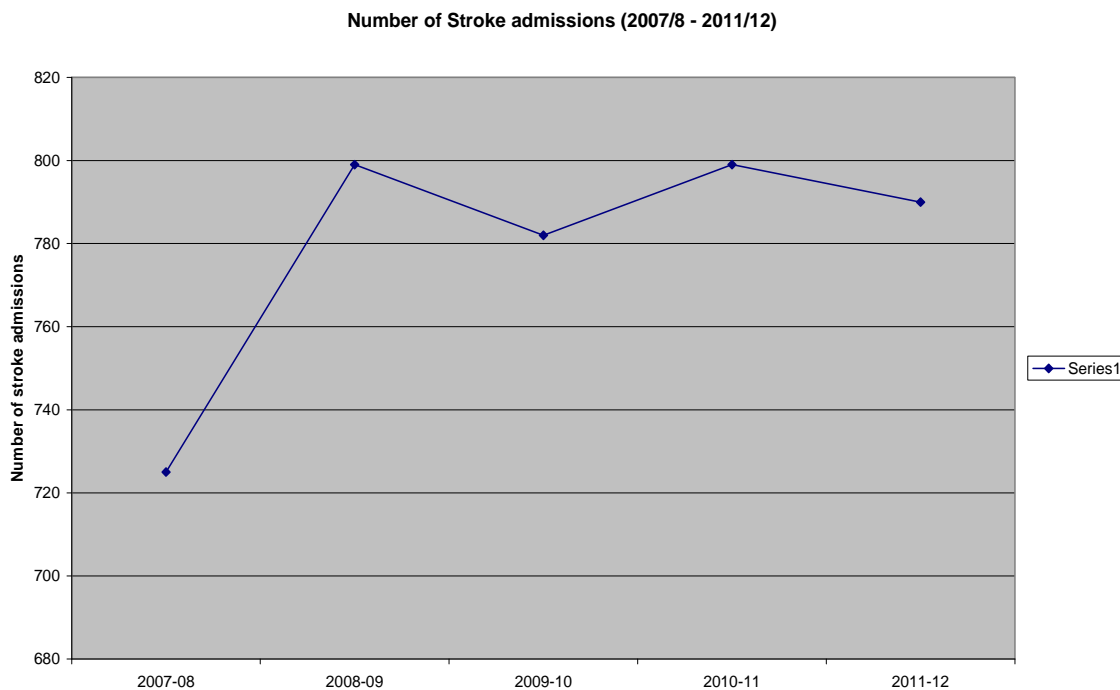
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<sup>2</sup> Based on spells (not FCEs)

ACTIVITY (spells)	2011/12 Q3 SLR	Percentage of activity
Primary Diagnosis strokes	773	25%
TIA inpatients	264	9%
Consultant First Attendances	796	25%
Consultant Follow Ups	796	25%
Nurse led TIA clinics - high risk	150	5%
Nurse led TIA clinics - low risk	271	9%
<b>Activity as per SLAM</b>	<b>3,050</b>	<b>100%</b>

**Table 1: Current stroke activity**

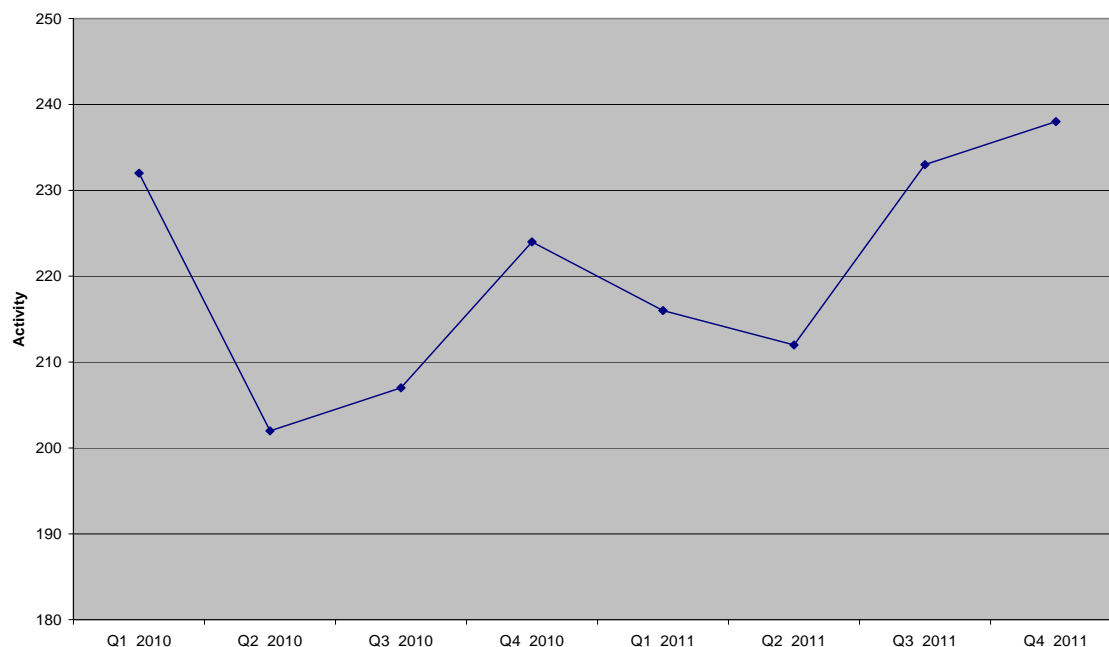
1.27 The chart below shows that the number of strokes per year has remained fairly stable in the last four years, following a steep rise in 2007/08.



**Chart 4: Stroke admissions (2007/8 – 2011/12)**

1.28 The chart below shows the activity for the past two years indicating a seasonal increase in stroke





**Chart 5: Stroke<sup>3</sup> activity by quarter from April 2010 – March 2012**

### Bed resource

1.29 Currently Eastbourne District General Hospital (EDGH) provides stroke care in 23 beds and Conquest Hospital in 21 beds on wards that also provide for general medical patients. Hyper acute and acute care is provided on both sites and these wards also provide ongoing rehabilitation within the same beds when there are delays in transferring patients into the 12 specialist stroke rehabilitation beds provided in the community (Irvine Unit, Bexhill).

1.30 Historically bed occupancy within the wards providing stroke care has been high with long lengths of stay due to a combination of general medical patients awaiting return to a community setting and stroke rehabilitation patients requiring admission to a community rehabilitation bed. This reduces the ability to ensure a bed is available for patients with an acute stroke to be admitted directly to the ward in line with National Stroke Improvement Programme Standards. ESHT is working collaboratively with adult social care to enable timely access to nursing and residential home placements to minimise the impact that delayed transfers of care have on bed utilisation and providing additional stroke rehabilitation beds. .

### Staffing Establishment

1.31 The current workforce comprises the medical, nursing and AHPs who provide a service to the wards that provide stroke care alongside care for other general medical patients. The consultant workforce supporting the unit also provide other acute general

<sup>3</sup> HRG AA2Z, AA23Z

medical services and the middle grade rota is combined with the general medical on call rota. Current workforce numbers are based on whole time equivalent staff in post.

<b>Workforce</b>	<b>Current</b>
Consultants	2.50
Middle grade	1.36
Registered nursing – acute	35.25
Unregistered nursing - acute	26.47
Registered nursing - community	8.62
Unregistered nursing - community	12.13
Occupational Therapist	7.80
Speech and Language Therapists	2.00
Physiotherapists	7.61
Dietician	2.00
Outpatient/specialist nursing	4.28
Non clinical staff	4.80
Early Supported Discharge	11.53
<b>TOTAL WTE</b>	<b>126.35</b>

**Table 2. Current workforce**

### **Clinical Support services**

1.32 It is essential that prompt access to diagnostics such as CT scans, Doppler, and MRI is available. NICE guidance states that patients with a suspected TIA should have an MRI scan.

1.33 Therapy services including speech and language therapy, physiotherapy, occupational therapy and dietetics are key to optimising recovery and independence.

### **Health needs<sup>4</sup>**

1.34 At an East Sussex level, circulatory diseases, cancer and respiratory diseases are the three main contributors to the life expectancy gap between the most and the least income-deprived areas. People who are economically disadvantaged have a higher rate of stroke, as well as heart disease and other related diseases. Many deaths and illnesses could be avoided by adopting healthier lifestyles so promoting healthy living is important in reducing the risk of stroke.

1.35 Nationally it is estimated that 20,000 strokes a year could be avoided through prevention work on high blood pressure, irregular heartbeats, smoking cessation and wider statin use for those with high cholesterol<sup>5</sup>. More women who have stroke die from

<sup>4</sup> East Sussex Joint Strategic Needs Assessment, 2011

<sup>5</sup>National Stroke Strategy, DoH, 2007 year

them compared with men. However, stroke is more common in men compared with women by the age of 75.

1.36 Within Hastings and Rother there is higher than national average deprivation with estimated levels of adults smoking and obesity worse than the England average. There are issues around smoking in pregnancy, alcohol, physical inactivity in children, and drug misuse that have an impact on the incidence of stroke. The incidence of stroke for those living in Hastings and Rother area is significantly higher than the England average, particularly for women, and this has a corresponding impact on stroke-related hospital admissions although the early death rate from heart disease and stroke has fallen.

1.37 In Eastbourne early death rates from stroke have also fallen and are better than the England average. Smoking in adults and obesity in adults is less notable than in other parts of the county compared with the national average.

1.38 Improvements in public health such as reduction in smoking and obesity are likely to reduce the overall incidence of stroke nationally in the long term (perhaps longer than the life of this strategy) and this will impact on demand and capacity planning. It is not yet possible to determine whether local demographics will reflect this national picture. Local data has not yet demonstrated an increase in the number of identified strokes as a result of the FAST public awareness campaign.

### **Impact of commissioning plans**

1.39 East Sussex has recognised the need to improve stroke services locally and, as such, has identified stroke as a priority area for development. Commissioning intentions therefore include the expectation that services are able to deliver key targets including full implementation of the stroke model, including:

- direct admissions to stroke unit
- 24/7 thrombolysis
- early supported discharge
- rapid access to rehabilitation, including therapies, seven days a week
- timely access to CT/MRI and carotid Doppler.

1.40 All three Clinical Commissioning Groups (CCGs) are aligned in their local plans for stroke prevention and care. Key priorities of particular note to stroke services are:

- A focus on healthy lifestyles (including smoking status of all patients established and performance targets on smoking cessation to be achieved)
- care of the elderly (with a focus on end of life care)
- an improvement in intermediate care and integrated care
- urgent care for older people and for people with complex needs
- supporting and developing the adoption of the Community Intermediate Care Hub model across the whole county (bringing the provision of reablement and rehabilitation together into one virtual team)

- developing specific pathway initiatives such as the Early Supported Discharge Service for stroke patients

1.41 Commissioners require the provision of stroke services for residents that fully meet best practice across the whole patient pathway. Prompt access to CT scans, direct admission and provision of care on a specialist stroke unit, together with the benefits from effective rehabilitation, will improve the provision and outcomes of stroke services across Sussex.

1.42 The commissioning of stroke services is moving towards whole pathway planning in order for stroke patients to receive optimum services in a timely manner and in the most appropriate setting with clear repatriation and discharge criteria.

### Key drivers

1.43 The Sussex Stroke Network works to develop a full range of commissioning intentions, based on best practice that will be locally implemented and is built into local activity planning. The commissioning intentions for Sussex remain consistent with the aspirations of the:

- National Stroke Strategy (NSS 2007)
- National Accelerated Stroke Improvement Programme (ASI Feb 2010)
- NICE Stroke Quality Standards (July 2010)
- British Association of Stroke Physicians standards (BASP 2010)
- Royal College of Physician guidelines

1.44 The Sussex Stroke Network has worked jointly with providers and commissioners to develop benchmark service specifications for early supported discharge and thrombolysis as well as working to ensure access to telemedicine to help deliver the thrombolysis medical rota. The options identified by ESHT for delivering the model of care for stroke are aligned to these intentions.

1.45 Evidence of improvements in stroke services delivered following service change in London also provide a driver for change. Six months after centralised dedicated hyperacute stroke units were opened in the capital, as yet unpublished figures show that more Londoners are benefiting from substantially improved outcomes following a stroke.

1.46 Since centralising stroke care in eight hyper acute stroke units rather than continuing to provide it in most hospitals, London has seen:

- Reductions in the time taken to provide brain scanning
- More patients being given clot-busting thrombolytic drugs than anywhere else in the UK or other large cities around the world;
- Improved numbers of patients receiving swallowing assessment
- Improved numbers of patients receiving physiotherapy assessment
- Reduced length of stay with patients spending on average four days less in hospital.
- Reduced mortality from strokes
- Improved quality of life following a stroke

1.47 Clinical opinion is that 15% of stroke patients would benefit from clot-busting thrombolytic drugs. Within just six months, 14% of stroke patients taken to a London HASU have been given thrombolysis. This is compared to only 3.5% of patients in the same six month period last year. (*Information from NHS London*)

### The model of care

1.48 The model of care will provide patients with a suspected stroke or the symptoms of a TIA not resolved completely within one hour at time of assessment with:

- Direct admission to a specialist stroke unit within four hours of attendance
- Brain imaging within one hour of arrival at the hospital for all patients meeting the criteria.
- Assessment by the stroke nursing staff and the specialist rehabilitation team within 24 hours of admission.
- Specialist teams and specialist care
- More active therapy support for patients with an aim to provide this seven days a week.
- Early supported discharge
- A fully integrated community team that works alongside the acute service to enable optimal flow for re-enablement of the patient.
- Rapid flow through each phase of stroke care so that patients are treated within the service providing for the lowest relevant level of complexity as soon as possible

1.49 The proposed model of care will provide best practice by improving quality standards through introducing specialist stroke beds provided within a specialist unit with a specialist stroke team ensuring early diagnosis, assessment and appropriate treatment for individual patient needs. It requires focussed hyper-acute provision for the first three days after a patient has suffered a stroke, acute care for up to seven more days and a strong emphasis on rehabilitation provided in a setting appropriate to the patient's overall condition.

### Stroke team

1.50 The whole pathway will be managed by a specialist stroke physician/physician with a specialist interest in stroke. This would be a physician with additional stroke training, in accordance with the standards set out in the service specification<sup>6</sup>. A specialist stroke team will be available 24/7 including therapists seven days a week<sup>7</sup>. This team will be supported by a stroke specialist consultant rota and the provision of telemedicine as now. A specialist nurse would be available 24 hours a day seven days a week and will guide the patient through the stroke pathway ensuring eligible patients receive prompt assessment and diagnostics.

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<sup>6</sup> Sussex Stroke Network

<sup>7</sup> National Stroke Strategy, DH, 2007

## Telemedicine

1.51 Telemedicine will continue to be used to support the provision of access to specialist stroke physicians or physicians with additional stroke training round the clock. The specialist stroke nurses will initiate the call to the consultant out of hours and an audio-visual assessment of the patient can be made. Following the assessment the consultant will provide early decision making and advice out of hours.

## Diagnosis of stroke and TIA

1.52 The proposed model of care focuses on the implementation of a streamlined pathway delivering rapid access to appropriate diagnostics followed by specialist hyper acute and acute care within a dedicated stroke unit.

1.53 The FAST assessment involves three specific symptoms of stroke: Patients presenting with stroke symptoms via SECAMB (999) and assessed as FAST<sup>8</sup> positive by the ambulance crew will trigger an alert message to the acute stroke unit enabling access to CT scanning within one hour where appropriate<sup>9</sup>.

1.54 This will enable patients to avoid the emergency department by being directly admitted to the stroke unit; thus reducing time taken from the onset of symptoms to diagnosis and treatment to improve patient outcomes and meet the four hour quality indicator.

## Transient Ischaemic Attack

1.55 The TIA service will be available seven days a week as opposed to the current five day service. In accordance with national standards, imaging of suspected TIAs will be performed by MRI scans rather than CT scans. The NICE guidelines state that for early assessment and treatment of people who have had a stroke or TIA diagnosis should “usually be through a type of scan called an MRI (magnetic resonance imaging) scan, unless this is not suitable, in which case a CT (computed tomography) scan should be offered”.

1.56 To identify patients with atrial fibrillation at an early stage and prevent strokes and TIAs, ESHT will work with primary care to educate and promote use of the Grasp test. Pulse checks will be given to all adult patients attending GP surgeries. Evidence elsewhere has shown that this type of screening can result in an increased number of GP referrals in the future.

## Rehabilitation

1.57 During the acute phase there will be daily review from the stroke team and access to 45 minutes of therapy from each AHP profession as appropriate to support longer term rehabilitation. An individual plan for rehabilitation will be developed for each patient in line with their individual needs. The acute units will not provide intermediate level rehabilitation. Length of stay will thus be reduced and patient experience and outcomes improved.

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<sup>8</sup> National Stroke Strategy, DH, 2007

<sup>9</sup> National Stroke Strategy, DH, 2007

1.58 Discharge planning will start on admission once stroke is confirmed, with the aim of getting the patient into dedicated rehabilitation facilities, or discharged to home with support as early as possible after admission to the acute unit. The early supported discharge service will ensure that the objective of discharging 30% of patients directly to their own homes is achieved.

1.59 Patients requiring further inpatient rehabilitation will have their care provided in a dedicated stroke rehabilitation unit. Joint discharge planning between the community rehabilitation team and adult social care will be routine and this will involve using IT systems that enable information to be shared, the same documentation and the same pathways.

### **Current challenges**

1.60 By assessing current provision against the above model of care, the following challenges have been identified:

#### **Quality and Safety**

##### **Availability of a specialist stroke unit**

1.61 Presently the stroke wards are not dedicated specialist stroke units and are regularly required to admit general medical patients due to patient flow and the pressure on acute admissions.

##### ***Separation of acute and rehabilitation care***

1.62 Currently the service provides combined stroke wards with patients receiving their acute care and some inpatient rehabilitation, on the wards. This means that acute hospital staff cannot focus on the hyperacute and acute phases of care and can place pressure on ensuring bed availability for acute stroke admissions via the emergency departments.

##### ***Availability of community rehabilitation beds***

1.63 Patients who have completed their acute spell and require further stroke rehabilitation as an inpatient may wait for a bed within the community stroke rehabilitation ward based at the Irvine Unit. There is frequently a waiting list for patients on the stroke wards awaiting the 12 specialist stroke rehabilitation beds currently available within the Irvine Unit. It has been calculated that an additional six rehabilitation beds are required.

##### ***Staffing establishments***

1.64 Currently ESHT is not meeting the national guidance<sup>10</sup> for the required establishment of specialist nurses, consultants and allied health professionals. There needs to be an increase in medical, nursing and allied health professionals. There are

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<sup>10</sup>National Stroke Strategy

currently insufficient stroke consultants in post as identified by peer review<sup>11</sup>. Funding is available for an additional consultant but recruitment has proved difficult.

1.65 There have been difficulties in recruiting to specialist neuro-rehabilitation therapists and this has impacted on the establishment of the early supported discharge team. There is a national shortage of these senior graded staff who are likely to want to work in specialist units. Opportunities for the Trust to support in house training and development are limited by the current lack of specialist provision.

1.66 In addition ESHT has failed to recruit a substantive stroke physician and it has been suggested by prospective applicants that this is because the current configuration is not an attractive working environment with sufficient volume of stroke activity.

## Patient Outcomes

### ***Accelerating stroke Improvement***

1.67 The NHS Stroke Improvement Programme published standards in April 2011 known as the Accelerating Stroke Improvement (ASI) metrics. Currently the stroke service is not meeting the required Accelerating Stroke Improvement Programme (ASI) quality indicators. An example of the challenge is that in Q3 only 27% of patients were admitted direct to the stroke ward within the required four hours and only 64% of patients spent the required 90% of their time on the stroke ward, or received prompt access to brain scanning

<b>Metric</b>	<b>Description</b>	<b>Target</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>
ASI 2: Direct Admission to stroke Unit	% of patients admitted directly to a stroke unit within 4 hours of hospital arrival	<b>90%</b>	9.1%	16.8%	27.3%
ASI 3: Acute stroke Care	% of patients spending 90% of LOS on acute stroke unit	<b>80%</b>	51%	58%	64%
ASI 4a: Access to Brain Imaging (1H)	% stroke patients scanned within one hour of arrival or stroke presentation	<b>50%</b>	13%	16%	16%
ASI 4b: Access to Brain Imaging (24H)	% stroke patients scanned within 24 hours of arrival or stroke presentation	<b>100%</b>	78%	76%	72%
ASI 5: High Risk TIA	% of high risk TIA patients investigated and treated within 24 hours of first contact with health professional	<b>70%</b>	71%	58%	81%

**Table 3. Accelerating stroke Improvement Metrics 2011-12**

<sup>11</sup> Peer review, April 2011 and revisited in October 2011.



### **Access to diagnostics**

1.72 Presently access to diagnostics such as CT scans can be delayed and currently stroke services are not achieving the performance of 50% patients receiving CT scans within one hour of attendance. Currently there is one CT scanner on each of the two acute sites. Whilst, radiology on both sites prioritises CT scanning of stroke patients during the day and provides an on-call service out of hours and weekends delays can sometimes occur when the scanners are out of action or already being utilized resulting in patients being transferred between sites following admission. Improvements will be made following the planned investment to provide an additional CT scanner on each site within the next two years as this will further increase the availability of a CT scanning slot for patients with a suspected stroke.

1.73 Difficulties in meeting the target times can also arise from delay in identifying stroke patients. This can be addressed through liaison with SECamb and the provision of 24/7 specialist stroke nurses to drive patients through the pathway

1.74 Currently there is a delay in insertion of Percutaneous Endoscopic Gastronomy (PEG) tubes for patients who are unable to swallow safely; this increases length of stay and delays discharge planning. This delay is particularly on the EDGH site where there are currently no specific slots allocated for endoscopy in comparison with the Conquest Hospital where two endoscopy slots are provided weekly.

### **Patient Experience**

#### **Length of stay<sup>12</sup>**

1.75 Currently the length of stay is longer than the National Stroke Strategy suggests it should be. The optimal average length of stay for the combined hyperacute and acute phase of care is 10 days and the average length of stay for the rehabilitation phase could be reduced considerably if more intensive rehabilitation support was available

<b>Length of stay</b>	<b>Conquest</b>	<b>EDGH</b>	<b>ESHT</b>	<b>Irvine Unit</b>
Length of stay – hyper-acute and acute stroke <sup>13</sup>	13.47	14.86	14.22	
Length of stay – community (Irvine Unit)				38

**Table 4. Length of stay for stroke**

#### **Seven day a week provision**

1.76 The stroke service needs to provide high quality care seven days a week; currently some therapy professions are only available five days a week. The specialist stroke nurse identifies patients with stroke symptoms and supports them through diagnostics, CT and admission to the stroke ward. This service is currently provided five days a week without any cover for leave. National standards are that a 24/7 specialist stroke nurse service should be provided.

<sup>12</sup> Based on spells

<sup>13</sup> The HRGs used are AA22Z & AA23Z

1.77 Likewise, the therapy service is provided only five days a week and patients do not currently consistently receive the recommended 45 minutes of activity therapy seven days a week<sup>14</sup>. There is also a lack of psychology input; access to psychology is included in the Accelerated Stroke Indicators<sup>15</sup>.

### **Sustainability and affordability**

#### ***Efficiency***

1.78 The current configuration with stroke care provided on the two acute sites means that efficiency savings have not been able to be made to allow increased investment in the specialist workforce.

#### ***Best Practice Tariff***

1.79 Best practise tariffs are not currently being achieved as can be seen in the table below which shows the achievement from November 2010 – October 2011.

Best practice Tariff - Eligible not achieved	76%
Best practice tariff Eligible achieved CT	18%
Best practice tariff achieved Stroke Unit	0%
Best practice tariff - achieved CT and Stroke Unit	6%

**Table 5: Best Practice Tariffs**

### **Options for delivering the model of care**

1.80 The following options were put forward by the stroke workstream as having the potential to deliver the model of care. This workgroup was multi-agency and comprised clinical staff, GPs, commissioners, LINK, other representatives of patients and carers and representatives from the Stroke Network.

1.81 The options relate primarily to the configuration of services on the two acute hospital sites EDGH and the Conquest Hospital. Outpatient services would not change.

1.82 Community rehabilitation beds would continue to be provided at the Irvine Unit in Bexhill in all these options but some propose that this provision would be increased.

<sup>14</sup> SINAP, and Sentinel Audit standards

<sup>15</sup> As per ASI metrics

Option 1	OPTION 2	Option 3	Option 4	Option 5
No change to current configuration of service with improvements delivered through productivity and efficiency initiatives	<b>All hyper acute and acute inpatient services co-located in a specialist stroke unit and provided on one acute site only</b>  <b>Increased community hospital inpatient rehabilitation service provision</b> <b>No stroke inpatient services on the other acute site</b>	Hyper acute and acute inpatient services provided on both acute units  Increased community hospital inpatient rehabilitation service provision	All acute inpatient care provide on both sites  No hyper acute units in East Sussex  Increased community hospital inpatient rehabilitation service provision	All hyper acute and acute inpatient services provide on both sites in hours only  All hyperacute inpatient services provided on one acute site only out of hours  Increased community hospital inpatient rehabilitation service provision

**Table 6: Delivery Options: stroke**

### Initial options appraisal

1.83 Five options were considered in detail for the future configuration of stroke services. Of these options 1, 3, 4 and 5 were eliminated at an early stage on the grounds that they would not be viable options for delivering the model of care.

1.84 The primary driver for the removal of option 1 was that it was considered that redesign alone could not deliver the model of care. In particular the continuation of provision of hyper acute, acute and rehabilitation care in the acute hospitals was not considered good practice and has had a known impact on the performance of the service against quality standards which has been difficult to address.

1.85 The primary driver for the removal of option 3 was that it was considered that it would not be possible to deliver a clinically sustainable service that fully delivered the model of care and met the quality standards required through this option. This view was supported by the National Clinical Advisory Team. Specifically current and future levels of demand were considered to be insufficient to sustain a full complement of specialist staff and maintain reliable access to sustainable diagnostics on both sites.

1.86 The primary driver for the removal of option 4 was patient safety as there would be no emergency provision of hyperacute stroke care in East Sussex and that this would impact on patient safety, quality of care and patient outcomes with all East Sussex patients having to travel much longer distances for their care.

1.87 The primary driver for the removal of option 5 was patient safety with concerns raised by clinicians and SECamb that there was a high risk that patients would arrive at

the wrong site at the wrong time due to the difficulties in managing patients safely at the point of transition between in and out of hours services

### Preferred future configuration

1.88 The future model of care has been developed through a clinically-led review to establish the optimum model of care that aligns with the strategic vision of the trust and strategic commissioning intentions. It also responds to current services challenges and drive to improve the quality of service provision to the East Sussex population

1.89 The preferred option for delivering this model is option 2. This option requires the reconfiguration of the service but enables the development of a sustainable, high quality stroke service utilising existing resources more efficiently and providing a working environment that will attract high calibre professional staff to ESHT. The option supports an increase in re enablement and reduction in institutionalisation.

1.90 The preferred configuration has the potential to reduce the length of stay by 5% per annum. The acute length of stay would reduce to 10 days (from the current 14 days for stroke)<sup>16</sup> and the community length of stay would reduce to 28 days (from current 38 days) over the next three years.

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<sup>16</sup> Based on spells

## Option 2:

<p><b>All hyper acute and acute inpatient services co-located in a specialist stroke unit and provided on one acute site only. No stroke inpatient services on the other acute site</b>  <b>Increased community hospital inpatient rehabilitation beds and Early Supported Discharge service provision.</b></p>	
<p>Outline Options Appraisal  Access and Choice</p>	<ul style="list-style-type: none"> <li>• This option would require some patients with a primary diagnosis of stroke to travel to the single acute site providing hyperacute and acute services..</li> <li>• Patients will receive care in a specialist stroke unit</li> <li>• Patients will not be able to choose between inpatient services on the two acute sites but will continue to have access and choice of services provided by other Trusts</li> <li>• As soon as possible, patients will be transferred to receive rehabilitation closer to their homes.</li> <li>• Some patients and their carers/relatives will be required to travel further than currently</li> </ul>
<p>Quality and Safety</p>	<ul style="list-style-type: none"> <li>• Implementation of the stroke pathway on the specialist acute stroke unit and community rehabilitation unit will improve quality of care through reduced variation of performance and concentration of scarce resource on a single site.</li> <li>• The specialist stroke unit will be better able to meet the quality standards as detailed above. It is anticipated that it will enable upper decile performance and associated improved patient outcomes.</li> <li>• A single specialist acute stroke unit enables consultant and middle grade medical contact time with patients to increase, supported by 7 days a week stroke specialist nurse and therapy teams.</li> <li>• Cohorting stroke patients onto a specialist stroke unit enables the development of a gold standard service delivered through best practice.</li> <li>• This option will enable scarce diagnostic resources to be used efficiently and will provide rapid access to appropriate diagnostics for all stroke patients.</li> <li>• Scarce specialist therapy workforce will be used more efficiently and will allow the sustainable provision of 7 days a week therapies on the unit.</li> <li>• There are implications for the ability to meet standards in relation to treatment times and risks that may arise due to delayed interventions for patients. <ul style="list-style-type: none"> <li>○ The thrombolysis standard is currently 4.5 hours from onset of symptoms; this standard is under review nationally and the time to treatment may extend further. However there is a risk that some patients will be excluded from thrombolysis due to delays in accessing the service</li> <li>○ The SECamb protocol includes an assessment and the paramedics inform the emergency department. .</li> </ul> </li> </ul>
<p>Clinical sustainability</p>	<ul style="list-style-type: none"> <li>• A single stroke specialist team and stroke rota could be provided thus concentrating the expertise and utilising scarce resources for example occupational therapists, neuro-rehabilitation therapists and stroke consultants more effectively.</li> <li>• A single unit would allow easier cross training between disciplines such as SALT training for nurses in swallow screening which can then</li> </ul>

	<p>be implemented out of hours. .</p> <ul style="list-style-type: none"> <li>• A gold standard service provided in a specialist unit would help the recruitment difficulties by attracting staff from out of area who could drive the development of the service</li> </ul>
Financial Sustainability	<ul style="list-style-type: none"> <li>• With a single unit the highest standards of care can be achieved with smaller staffing numbers as there is no duplication.</li> <li>• There is a risk that loss of activity as a consequence of providing the service on a single site will impact on the overall income of the service</li> <li>• Economies of scale can be realised with a single unit for example, more able to maintain service cover 365 days a year.</li> </ul>
Deliverability	<ul style="list-style-type: none"> <li>• Having more patients in a single area will enable the service to be more flexible to meet the fluctuations in demand.</li> </ul>

### Service change summary

1.91 The services **not changed** under the preferred option for configuration are:

- **Outpatients** – all current stroke outpatient clinics including those provided in community hospitals would continue to be provided as they are now.
- **Diagnostic and support services** – these services which include rapid access to diagnostics including scanning and x-rays as well as ITU, HDU will continue to be provided on each acute site fully aligned to the needs of the services provided from the site

1.92 The stroke services that **would change** under the preferred configuration would be:

- **Telemedicine** would be used to support the site that does not have the specialist stroke unit to ensure that, when appropriate, staff are able to access clinical opinions from stroke specialists without needing to transfer patients.
- **Specialist acute stroke Unit** – hyper acute (the first 3 days of care) and acute stroke (the next 7 days of care) services would be provided in a dedicated stroke unit with 26 beds which would be managed to 85% occupancy with a maximum 10 day length of stay. This is a change from the existing service where beds in non-specialist wards are designated stroke beds and provides a better opportunity to flex the beds depending on acuity of patients' needs.

1.93 This would be delivered by:

- **Emergency assessment** of all potential emergency stroke patients would be undertaken by GPs and SECamb according to a clinical protocol allowing those meeting the criteria to be taken straight to the specialist stroke unit at the site providing hyperacute and acute stroke care. Any patients self-presenting at the emergency departments would also be assessed by emergency department staff according to the protocol and if necessary transferred to the specialist stroke unit. Inpatients on the site not providing hyperacute and acute stroke services who develop the signs of a stroke

would also be assessed according to the protocol and would be transferred to the specialist unit.

- **Enhanced supported discharge** would continue to be provided as two geographically separate teams but they would work to the single specialist acute stroke unit. The delivery of this service would be integrated with the neighbourhood support teams being developed across East Sussex – these services would help people to get back to their own homes more quickly.
- **Community rehabilitation beds** - these beds which provide care for people recovering from a stroke who are no longer in the acute phase of their illness would continue to be provided in the Irving Unit at Bexhill Hospital as they are now but there would be an increase in the number of beds from 12 to 18.
- **Specialist diagnostic and support services** – these services would be provided to support the single hyperacute and acute stroke unit and include rapid CT scanning and thrombolysis treatment for those patients that need this in line with national best practice. Telemedicine consultation would be available from the site that does not have the specialist unit.

### Impact of the preferred configuration

1.94 In assessing the impact of the preferred configuration an assumption has been made that numbers of stroke patients will continue at current levels based on commissioning intentions and demographic trends. The activity predicted for stroke is based on the stroke audit data trends show that stroke admissions have been fairly stable for the last four years. Predicted activity for stroke services is not affected by commissioning goals to reduce emergency activity, and remains constant over the planning period. Income increases as best practice tariff is achieved within the new model of care

1.95 By improving length of stay in both the acute and community settings, bed numbers can be reduced by 20 in the acute setting. Community beds will be increased by 6.

1.96 The number of beds required for the hyper acute/acute activity have been established based on the above activity levels, reductions in length of stay and a bed occupancy of 85%. In addition the requirement for community stroke rehab beds at the Irvine unit has been estimated as being 18, and is based on reducing the length of stay from 38 to 28 days and an occupancy of 90%.

<b>Capacity (Table B)</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>
Length of stay - acute stroke	14.22	10.67	10.00	10.00	9.80	9.60
Length of stay - community	38.00	32.00	30.00	28.00	28.00	28.00
CT scans	1,883	1,703	953	975	997	1,020
Doplers	995	920	1,055	1,079	1,104	1,130
MRI	-	421	658	673	689	704
Beds - hyperacute/acute	44	38	26	26	26	26
Beds - community rehab	12	18	18	18	18	18

**Table 7. Resource impact - Stroke**

### Workforce impact

1.97 Analysis of the workforce impact of the proposal for implementing a single site dedicated stroke unit has been completed based on the above activity levels, predicted reductions in length of stay and commissioning intensions and this can be found in the table below. It should be noted that current staffing levels (page 34) is based on the provision of the current service on a mixed medical ward rather than indicating the numbers of staff providing dedicated stroke care.

<b>Workforce<sup>17</sup></b>	
Consultants	3.00
Middle grade	3.00
Registered nursing - acute	21.68
Unregistered nursing - acute	7.92
Registered nursing - community	9.62
Unregistered nursing - community	12.13
Occupational Therapist	8.80
SALT	4.40
Physio	8.80
Dietician	2.00
Outpatient/specialist nursing	7.00
Non clinical staff	4.11
Early Support Discharge	11.53
<b>TOTAL FTE</b>	<b>103.99</b>

**Table 8. Future workforce requirements**

1.98 Medical staffing numbers have been calculated using the BASP<sup>18</sup> guidelines and are based on recommended ratio of activity to medical cover.

1.99 Nurse staffing levels are also based on activity and allow for 1.12 WTE nurses (registered and unregistered) to each bed. This also allows the provision of one registered nurse for six patients based on an average bed occupancy of 85% as

<sup>17</sup>based on spells

<sup>18</sup> British Association of Stroke Physicians



recommended by the RCN in 2010.<sup>19</sup> The ratio of registered to unregistered staff has been set at 80:20 for the hyperacute beds and 70:30 for the acute beds.<sup>20</sup>

1.100 Increases will be made in the number of therapy staff in order to meet national best practice guidelines as set out in the National Stroke Strategy. In addition specialist stroke nurse numbers will be increased to support a 24 hour seven day a week service.

1.101 Additional community provision for stroke rehabilitation will be achieved by changing the use of existing community beds to accommodate more stroke patients. This will not require additional staffing above existing establishment and will be enabled by improving length of stay for general medical patients in community rehabilitation beds and releasing these generic beds for the provision of stroke rehabilitation

1.102 It is expected that in addition to the changes in staffing for stroke care outlined above, these changes will have an impact on staff working on the current mixed medical ward as part of the overall redesign of acute medical care and medical admissions. The Trust recognises that significant changes to services would have an impact on the staff involved and that the successful implementation of change depends on effective consultation and engagement with staff throughout, ensuring they have access to information, necessary training, skills development and personal support. Any changes to working patterns would be made in full consultation with staff and changes would be in accordance with staffing policies and in line with agreed internal protocols.

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<sup>19</sup> RCN Guidance on Safe Nursing Staff Levels, December 2010

<sup>20</sup>The staffing ratios have been developed utilising the AUKUH Acuity/ dependency tool and recommendations outlined in the National Stroke Strategy and the Sussex stroke Network.

## Financial Impact

<b>Financial analysis</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>
<b>£000's</b>					
Total direct pay costs	-£4, 592	-£4,199	-£3806	-£3,806	-£3,806
<i>Drugs</i>	-£39	-£40	-£41	-£42	-£42
<i>Other Non Pay</i>	-£56	-£57	-£57	-£58	-£59
<i>Supplies</i>	-£150	-£153	-£156	-£159	-£161
<i>Other Services</i>	-£77	-£78	-£78	-£78	-£79
<i>Pathology</i>	-£131	-£131	-£132	-£133	-£133
<i>Pharmacy</i>	-£213	-£214	-£215	-£216	-£217
<i>Radiology</i>	-£112	-£113	-£113	-£114	-£114
<i>Theatres &amp; ITU</i>	-£408	-£410	-£412	-£414	-£416
<i>Therapies</i>	-£160	-£161	-£162	-£163	-£163
<i>Commercial</i>	-£324	-£308	-£292	-£278	-£264
<i>Corporate Overheads</i>	-£301	-£289	-£277	-£266	-£256
<b>Total costs</b>	<b>-£6,563</b>	<b>-£6,151</b>	<b>-£5,741</b>	<b>-£5,725</b>	<b>-£5,710</b>
<b>Cost savings per annum</b>		<b>£412</b>	<b>£410</b>	<b>£16</b>	<b>£15</b>

**Table 9. Financial impact - Stroke**

## Item 5 Appendix 2

### EXTRACTS FROM:

# NHS South East Coast Integrated Stroke Care Pathway Service Specification

#### Executive Summary

The NHS South East Coast Integrated Stroke Care Pathway Service Specification is to design a patient pathway for Stroke care which seeks to underpin an effective whole system approach for primary care prevention, rapid assessment, brain imaging, treatment, therapy and care, 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 the South East Coast in order to fully integrate the 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 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, SHA Clinical Lead for Stroke.

Service	<b>NHS South East Coast Joint Integrated stroke and TIA service Specification</b>
Commissioner Lead	
Provider Lead	
Period	<b>2012-2013</b>
Review Date	<b>March 2013</b>

## 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 commissioners should adopt when commissioning stroke care services.

This Service Specification has been developed by members of the Surrey, Sussex and Kent 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 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 rehabilitation and longer term support.

An integrated approach to providing services is fundamental to the delivery of high-quality care to patients with stroke<sup>1</sup>. It may be that aspects of the pathway are not provided by a single 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 Coastal region

## **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 the South East Coast to use resources effectively within the health economy. The specific key performance and quality indicators are listed in Section 7, but here are the general expected outcomes:

- 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

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<sup>1</sup> National Institute for Health and Clinical Excellence – Stroke Quality Standards

*The following sections are extracts from the specification – original numbering has been retained so may not be sequential.*

## **2.1.2 Pre- Admission, Ambulance Acute Stroke ‘FASTrack’ Pathway**

Service providers 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 taken to an emergency department 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.

## **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 Trusts (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 be 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, 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:-

- The Door-to-Needle time should be within 60 minutes for 95% of patients receiving thrombolysis. As the processes become more streamlined and experience grows, there is an expectation that this will reduce to 30 minutes.
- 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 license, 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 license, 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** and completed with **physicians, with an interest in stroke**. 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 thrombolysed 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

<b>B6.</b>	To increase the number of stroke patients who return home directly from hospital.
<b>B7.</b>	Reduced disability as measured by the modified Rankin scale (mRs)
<b>B8.</b>	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, including urgent imaging within 1 hour where indicated
- 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 14 days (48 hours if high risk)
- 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)
- 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