Central Sussex Stroke Review – Update September 2016

Summary:

Evidence shows that people with a suspected stroke get the best outcomes when they are admitted to a hospital with a highly specialist and experienced team of stroke experts, in a similar arrangement to patients currently treated in hyper acute cardiac services.

Our local stroke services are good – but they could be much better. We know that there is much more we could still do to further improve outcomes for local people who experience a stroke. The recent CQC report described the service as outstanding, delivered by Staff who spoke with passion and enthusiasm about the service and were focused on improving the care for stroke patients. The results of audits confirmed that stroke care at the hospital had improved over the past year.

A group of more than 20 local clinicians - including hospital doctors, GPs, nurses, therapists, patient representatives and paramedics - has been reviewing our current stroke services, feedback from patients and the latest evidence on best practice. They have recommended that emergency stroke services are centralised at the Brighton, Royal Sussex County Hospital (RSCH) site.

The South East Clinical Senate, a group of the most senior clinicians in the region, set up an expert independent clinical review group which included 18 local and national specialists, including the national clinical director for stroke, to review the options. After reviewing all the local data, the engagement feedback and evidence of successful stroke improvements nationally, the panel agreed that a single specialist stroke unit was appropriate, and considered that the RSCH option was far superior. This was based on a combination of the following: activity analysis indicating that the Princess Royal Hospital (PRH) only unit would be too small; that the longer travel distances would affect a fewer number of future patients and their visiting families; that an RSCH site would have all the required co-located services on site, not least of which is interventional neuroradiology (and the potential for a regional acute thrombectomy service); and an RSCH unit could also provide on-site acute stroke care for the high risk patients in vascular surgery, major trauma, renal, cardiology and cardio-thoracics.

On-going post-discharge follow up and rehabilitation would continue to be provided locally both at PRH and in the community with plans in place to increase the level of support from current provision.

1. Context

1.1 The South East Clinical Senate (2016) explained that there is now a large body of evidence demonstrating the many benefits to patient outcomes of centralising specialist services for acute stroke patients in hyper-acute and acute stroke units. It is important to understand the implications of such a service move for hospitals and their local populations. There is now strong evidence that the provision of the full range of multi-disciplinary interventions by specialist stroke units reduces mortality and improves long term patient outcomes. The benefits of delivering acute stroke care in fewer larger units include: faster thrombolysis, better outcomes, reduced length of stay and overall bed requirements, financial and workforce economies of scale, improved recruitment and retention, teaching, training and research opportunities, and appropriate co-location with other key clinical services.

2. Recommendations from the South East Clinical Senate

2.1 In December 2015, the South East Clinical Senate Expert Clinical Review Group, whose membership included senior clinicians across Kent, Surrey and Sussex as well as national independent experts, such as Dr Tony Rudd, National Clinical Director for Stroke, gave 56 recommendations which were focussed around key areas such as leadership, decision-making, network interdependencies, engagement, workforce and clear pathways.

2.2 The Senate emphasised the importance of a Hyper Acute Stroke Unit (HASU) needing to admit a minimum of 600 confirmed stroke cases per year in order to benefit from faster thrombolysis pathways, better outcomes and a wide range of clinical, workforce and financial benefits.

2.3 There was a strong steer that a more in depth analysis and remodelling of all the possible options should be undertaken by BSUH and WSHFT to ensure that a thorough process had led to evidence based decisions on the options being taken forward. They should also describe the pathways and how they will link with interdependent services.

2.4 Although some high level patient and public engagement had been completed, there was a recommendation to provide more clarity for the public in what is being considered by the review and consider sharing scenarios of what could or would be the benefits and impacts of the proposals.

3.Central Sussex CCGS

3.1 The acute stroke service at Brighton and Sussex University Hospitals NHS Trust (BSUH) has historically comprised a multidisciplinary unit on both main sites of the Trust, on Solomon and Donald Hall wards at the Royal Sussex County Hospital (RSCH) in Brighton and Ardingly ward at the Princess Royal Hospital (PRH) in Haywards Heath. Patients with a suspected stroke have presented and been admitted to both sites, with just under 24% of patients admissions at PRH.

3.2 There are up to 750 stroke admissions at BSUH per annum. At RSCH, there are 23 beds dedicated to stroke on Solomon and Donald Hall wards, and at PRH up to 12 beds on Ardingly ward are used for stroke.

3.3 Since February 2016, BSUH have had to implement a temporary suspension of stroke services at Princess Royal Hospital, Haywards Heath, to Royal Sussex County Hospital, Brighton due to challenges in recruiting and training new staff. The number of beds dedicated on the County site to Stroke patients has been increased to 27 beds in total. Evidence from that temporary change is being incorporated into the analysis on the options being considered.

3.4 The review of Stroke services in Central and West Sussex started in January 2014 and the gap analysis against the National Institute of Clinical Excellence (NICE) standards of best practice, showed that some Sussex sites:

- Did not provide Transient Ischaemic Attacks (TIA) services 7-days-week.
- Had reduced access to key diagnostics at the weekend.
- Did not deliver thrombolysis services 7-days-a-week.
- Admitted less than 600 patients p.a. (a marker of quality care).
- Did not achieve brain scanning within an hour.
- Did not have consultant-led ward rounds 7-days-a-week.
- Were below average on admitting patients to a stroke ward within 4 hours.

- Had lower than expected staffing levels.
- Had assessed too few patients' swallowing capability
- Lacked Allied Health care Professional (AHP) support at weekends and insufficient therapy offered.
- Lacked an early supported discharge(ESD) service or community support within 72 hours of discharge
- Lacked access to psychological therapies.

3.5 As a result, Brighton and Sussex University Hospitals NHS Trust (BSUH) and Western Sussex Hospitals NHS Foundation Trust (WSHFT) were asked to develop options to demonstrate how they could reconfigure their services to deliver high quality stroke care for local people. The South East Clinical Senate was asked by the Sussex commissioners to undertake an independent clinical review of the proposed options to ensure that the current proposals from BSUH and WSHFT reflected best practice, are sustainable, and have appropriately considered the clinical relationships with adjacent stroke and other clinical services.

3.6 The East Surrey Hospital site in Sussex and Surrey Hospitals NHS Trust (SASH) and the Eastbourne site in East Sussex Healthcare NHS Trust (ESHT) were identified as fixed stroke units.

4. **Summary of progress in addressing recommendations from the Clinical Senate by the Central Sussex Stroke Board re BSUH Stroke services**

4.1 **Leadership & Communication**

4.1.1 The Central Sussex Stroke Programme Board for High Weald Lewes Havens CCG, Brighton and Hove CCG and Horsham and Mid Sussex CCG have been working together, in collaboration with their neighbouring CCGs, Trusts and County Councils, to complete that detailed options appraisal.

- The Group has been Chaired by the Stroke GP Lead for HMS CCG. Membership includes over 30:
- Senior Clinicians and Managers from the CCGs (Brighton and Hove CCG, High Weald Lewes Havens CCG, Horsham and Mid Sussex CCG and Crawley CCG and Coastal West Sussex CCG),
- Acute Trusts (Brighton and Sussex University Hospitals NHS Trust, East Sussex Healthcare Trust and Surrey and Sussex Healthcare Trust),
- The South East Coast Ambulance Service,
- Sussex Community NHS Foundation Trust, Sussex Partnership Foundation Trust,
- County Councils (West Sussex County Council, Brighton and Hove County Council and East Sussex County Council),
- 2 lay members and the South East Clinical Network.

4.1.2 During August and September, the CCG Clinical Executive Groups and some of the GP locality groups have considered the Central Sussex Stroke review and agreed that clinically, it was the correct thing to do to improve the care for stroke patients. They raised a number of questions for assurance, which have been responded to by Dr Nicky Gainsborough, BSUH Stroke Consultant. These included:

- There has been minimal impact on other patients at RSCH and on critical care from the temporary divert
- The pre alert call to the Stroke Specialist Team has not be hampered by ambulances queuing outside the ED throughout the temporary divert and patients are received quickly and efficiently by the stroke specialist team who meet the ambulance at the A/E Front door
- There have not been an increase in "Delayed Transfers of Care" on the system but Length of Stay at RSCH for Stroke patients will have increased due to pressures on social care in the West and East.
- Work is underway across Sussex to increase access to Early Supported Discharge/responsive services and 6 month reviews.
- 7 day-a-week services will deliver better outcomes, less disability and lower Length of Stay.

4.2 Evidence based decision-making of the preferred option

4.2.1 There was strong evidence outlined in the Case for Change, which included evidence from the National Institute of Clinical Excellence (NICE), the Royal College of Physicians, the Department of Health, British Association of Stroke Physicians, the NHS Midlands and East Stroke review and NHS England.

4.2.2 Research published in June 2016 by Fulop N et al. found that after centralisation, London stroke patients were significantly more likely to receive evidence-based care.

4.2.3 At the Central Sussex Stroke Programme Board on 01/09/2016, ESHT confirmed that since they centralised services onto the Eastbourne site the standard of care received by patients has improved across all domain with only one exception: thrombolysis times. They are investigating the cause of this.

4.2.4 Evidence from the national Stroke audit shows that the clinical benefit for all patients treated at RSCH

include:

- Shorter time to Consultant review
  - 97% seen < 24 hours (nationally 79.1%)
  - Average time to review of 4h 27min (nationally 12h 3min)
- CT scan in less than 1 hour
  - 71.1% of patients (nationally 48.4%)
  - Average wait for scan of 34 minutes, (nationally 3h 51min)
- This leads to higher thrombolysis rate
  - 14.8% (nationally 11.4%)
- Shorter time to Specialist Nurse review
  - 94.1% < 24 hours (nationally 89%)
  - Average time to review of 13 minutes (nationally 1h 30min)
- Higher number of initial swallow assessments
  - 95.8% (nationally 71.2%)
- All patients receive nutrition screen and dietician review
  - 100% (nationally 90.2%)
- Higher rates of mood and cognition screening by discharge
  - 97.5% (nationally 89.2%)
- Continence plan in less than 3 weeks
  - 93% (nationally 89.7%)
- Consultant delivered ward rounds at Royal Sussex County Hospital 7 days a week

4.5 Decision-making, pathways and workforce

The Central Sussex Board has reviewed the 7 options set out below which have already been appraised by BSUH and agree that the preferred option is option 6: Develop a fully compliant HASU with a co-located ASU at RSCH (i.e. no HASU or ASU provided at PRH). Patients with suspected stroke will present to RSCH where they will be admitted for the full duration of their stroke episode.

Option	BSUH Self-Appraisal
1. No Change (i.e. HASU at RSCH and PRH meeting the current standards)	This option was discounted because: • It would not deliver the improvement in quality and outcomes needed through meeting the Service Specification for best practice. • There are no improvements in the workforce shortfalls. • There are below South East Clinical Senate's recommendation of 600 new HASU patients on each site.
2. No HASUs at BSUH (i.e. There will be no HASU on either site at BSUH. Patients with a suspected stroke from the BSUH catchment area will be re-directed to another nearest HASU within the region where they will be admitted if required.	This option was discounted because: • It would not meet the South East Clinical Senate Critical Co-Dependency recommendations that as the RSCH is the designated regional major trauma centre and vascular surgery hub, it must be physically co-located with a HASU. • It does not address any of the quality and performance improvements required at BSUH. • It would not meet the expectation by the South East Clinical Senate that 95% of patients could reach the nearest HASU in less than 45 minutes.
3. Develop two fully compliant HASUs at RSCH and PRH (i.e. Patients with a suspected stroke will present and be admitted to both sites).	This option was discounted because: • It is below South East Clinical Senate's recommendation of 600 new HASU patients on each site. • The anticipated volume of stroke admissions on both sites for the options with and without a HASU at Worthing are insufficient for maintaining clinical expertise, efficiency and patient experience.

4. Develop a fully compliant HASU with co-located ASU at RSCH and an ASU at PRH. (i.e. Patients with suspected stroke will be conveyed to the HASU at RSCH where they will be admitted for the initial 72 hours of their stroke stay. Any patients requiring on-going stroke care will be transferred to their local ASU. The option assumes that all patients admitted to the RSCH HASU will be transferred to the ASU at RSCH or PRH.)	This option was discounted because: • Although the volume of stroke admissions for the HASU at RSCH site meet the standards required, this would lead to an ASU at the PRH site which would be unsustainable in size to justify workforce requirements and ensure maintenance of clinical expertise and efficiency. The unit would need to be staffed to the levels required in the South East SCN specification, which, as the financial analysis demonstrates, would be unaffordable. Maintaining staffing for such a low level of beds would also not be sustainable.
5. Develop a fully compliant HASU at RSCH and an ASU at PRH (i.e. Patients with suspected stroke will present and be admitted to RSCH for the initial 72 hours of their stroke stay. Any patients requiring ongoing stroke care will be transferred to PRH for the duration of their treatment where appropriate.	This option was discounted because: • A standalone HASU of this size would be unsustainable to justify the workforce requirements, particularly in ensuring the most effective and productive use of our medical and therapy resource, who will be required to work cross-site between the HASU and ASU units. The unit would need to be staffed to the levels required in the South East SCN specification, which as the financial analysis demonstrates would be unaffordable. • This option would also increase the requirement for ambulance transfers between RSCH and PRH, as it is assumed that 100% of patients admitted to RSCH will be transferred to the PRH ASU where appropriate. This would be a poor experience for the majority of the population served by BSUH, with potential for 70% of total stroke admissions who are from the Brighton and Hove catchment being moved out of area.
6. Develop a fully compliant HASU with a co-located ASU at RSCH (i.e. no HASU or ASU provided at PRH. Patients with suspected stroke will present to RSCH where they will be admitted for the full duration of their stroke episode. The scenario with a HASU/ASU at RSCH will require 27 beds if there is a HASU at Worthing; 34 beds if there is no HASU at Worthing.	This is the **preferred** option because: • It is above the South East Clinical Senate's recommendation of 600 new HASU patients on each site. • The option to integrate the stroke service onto a single site at RSCH was strongly supported and favoured by the South East SCN Expert Clinical Review Group • 100% of patients will reach a HASU in less than 45 minutes. The maximum increased in journey time is 35 minutes. If there was a HASU at Worthing only 90% of patients will arrive in less than 30 minutes and if there is a HASU at St Richards only 84% will arrive in less than 30 minutes. • It is compliant with the range of recommended stroke admissions required to maintain clinical competency and service quality and efficiency. • It has potential for enhancing the quality and efficiency of the service at BSUH by bringing benefits of having a consolidated medical, nursing and therapy workforce. • The proportion of BSUH stroke patients that will be affected by locating the service at RSCH represents 30% of total BSUH stroke activity (84 patients).

	• Locating the HASU and ASU at RSCH will bring some disadvantages in relation to access due to the limited parking facilities available. However, public transport links to RSCH are good, with regular bus services stopping directly outside the hospital, and regular mainline train services into Brighton from London and the South Coast. There is also a current bus service running between PRH and RSCH, which is available for public use.
7. Develop a fully compliant HASU with a co-located ASU at PRH (i.e. This option assumes that there will be no HASU or ASU provided at RSCH.)	This options was discounted because: • It has potential for enhancing the quality and efficiency of the service at BSUH by bringing benefits of having a consolidated medical, nursing and therapy workforce • Only the scenario without a HASU at Worthing will deliver a volume of stroke admissions at PRH that is within the recommended range to maintain required to maintain clinical competency and service quality and efficiency • Locating a HASU at PRH does not meet the requirement to have a HASU co-located with the regional major trauma centre and vascular surgery hub, and access robust pathways will need to be developed to enhance access to acute cardiology and critical care

BSUH believe their **preferred** option will deliver the greatest improvement in outcomes for patients through ensuring that:

- More high risk (TIA) patients are seen within 24 hours
- There is Stroke Consultant cover for one site 7-days-a-week
- A stroke nurse specialist will be able to attend all stroke calls in hours and a senior stroke nurse will be available to attend all stroke calls out-of-hours
- There will be faster assessment and decision making on arrival to A&E, and a reduction in call to needle times for thrombolysis
- There will be improved access to neuroradiology facilities and neuroradiologist expertise
- There will be an increase in staffing to enable patient access to consultant-led ward round and access to all AHPs and 7 days per week.
- There will be an increase in the proportion of patients that can be discharged home with support from community services and further reduce the proportion of stroke patients that are admitted to the Sussex Rehabilitation Centre (SRC) for ongoing specialist rehabilitation

The South East Clinical Senate agreed that a single HASU for the trust was appropriate, and considered that the RSCH option was far superior. This was based on a combination of the following: activity analysis indicating that the PRH-only unit would be too small; that the longer travel distances would affect a fewer number of future patients and their visiting families; that a RSCH HASU and ASU would have all the required co-located services on site, not least of which is neuroradiology (and the potential for a regional acute thrombectomy service); and a RSCH unit could also provide on-site acute stroke care for patients on the vascular surgery and major trauma centres.

5. Other co-dependeny Considerations

5.1 **BSUH Clinical co-dependencies**

The clinical co-dependencies of acute hospital services have been described by the South East Clinical Senate, recommending that a HASU should be co-located on the same site as A&E and emergency medicine, acute and general medicine, elderly medicine, respiratory medicine, urgent GI endoscopy service, critical care and acute cardiology. The guidance also describes the acute services that depend on a co-location with a HASU, which include major trauma centres and vascular surgery hubs.

A further important consideration for clinical co-dependency relates to the current and future development of intra-arterial thrombectomy service and the treatment of haemorrhagic strokes and sub-arachnoid haemorrhage. The neurosurgery and interventional neuroradiology service at BSUH was moved to the RSCH site in June 2015, where it is now the designated regional major trauma unit. Although there are currently insufficient interventional neuroradiologists to undertake specialist interventions 24/7, future planning of stroke services and HASU locations should take account of this significant development, with clearly defined tertiary referral pathways and access to specialist neurosurgery and neuroradiology to treat surgical complications of acute strokes.

5.2 **South East Coast Ambulance (SECAMB) Service**

At the Central Sussex Stroke Programme Board on 1st September 2016, SECAMB confirmed that of the options put forward, Option 6 (HASU/ASU at RSCH) represents the best possible option, based on the following factors:

i. Locating the services at RSCH will lead to lower average inbound ambulance travel times for the majority of the patient population BSUH serves (compared to locating the services at PRH), maximising the likelihood of timely access to definitive care
ii. SECAmb welcomes the reduction in complexity that locating all services in a single site with 24/7 access brings. This will make clinical decision-making simpler and improve safety for patients.
iii. Since February 2016, a temporary stroke service divert has been in place due to non-availability of stroke services at the PRH site. This has led to patients who would otherwise be taken to PRH being conveyed to RSCH, and (in small numbers) to East Surrey hospital. To date, there have been no adverse incidents or complaints associated with this change that SECAmb is aware of. This provides some further reassurance as to the viability of this option.
iv. The maximum increase in journey times is approximately 35 minutes, based on expected travel times from the geographical centre of each electoral ward to PRH and alternative hospital sites where stroke services are provided. The maximum travel inbound travel time remains under 45 minutes for patients in all electoral wards affected by this proposed change.
v. SECAmb's standard practice is to pre-alert hospitals to enable them to prepare to receive patients with complex needs such as potential strokes, traumatic injury etc. This will enable a fast handover to hospital's specialist team and thereby minimise the time from the initial 999 call to receiving definitive treatment and care.
vi. However, increased travel times increase the overall job cycle time, reducing the level of resource available to respond to other incidents. It was agreed that this would be given due consideration in the CCG/SECAMB contracting discussions.

5.3 **Sussex County Councils**

5.3.1 **West Sussex County Council**: The most important issue is what is best for patients and the County Council recognise that this will be achieved through delivering the service on a single site and the arguments for that service being at the RSCH rather than PRH. The County Council currently has some challenges when they assess patients at RSCH. They do not have IT access or office space. West Sussex Council supports the BSUH preferred option 6 (HASU/ASU at RSCH only) but would want to Trust to address the issue of IT access, space and staffing resource. A meeting is to be set up between the Trust, the County Councils and Sussex Community Foundation Trust to explore mitigating options.

5.3.2 **East Sussex County Council**: Single siting of the HASU and ASU and subsequent co-location of stroke patients would ensure that all ESCC/ASC provided services are able to offer timely and consistent support to stroke patients and their carers within a single pathway.

5.3.3 **Brighton and Hove County Council**: Option 6 enables more effective SW support and proactive discharge planning to be provided and developed as patients will remain on one site. This model means we are likely to see an increase in the proportion of patients that can be discharged home with support from community services and further reduce the proportion of stroke patients that are admitted to the Sussex Rehabilitation Centre (SRC) for ongoing specialist rehabilitation.

5.4 Impact on patient experience

5.4.1 A key consideration for the public is the issue of increased distance and travel times to centralised specialist units. Each option considered within BSUH proposal complies with the conveyance time standards of 100% conveyed within 45 minutes. The conveyance times have therefore not been specifically re-reviewed within this proposal, however each option has been reviewed to assess the impact of increased travel time and distance to the delivery of timely hyper-acute stroke care for patients being diverted to a new site at BSUH and also other Trusts, and also for visiting family, friends and carers. During the period of the divert there have been no complaints received by the Trust about the additional travel time for relatives or carers. The Royal Sussex County site has however received a number of plaudits from patient who have experience the current divert. BSUH are looking at mitigating actions, such as flexible visiting or appointment, which could be considered to mitigate the challenges to change has on carers and visitors.

5.4.2 At the Central Sussex Stroke Programme Board on 01/09/2016, the Group reviewed the Equality Impact Assessment of the proposed changes to ensure they have considered the potential impact on all people with 'protected characteristics' including:

- Ensuring early supported discharge service is in place,
- Preparing information for carers on transport into Brighton, and parking facilities at RSCH and nearby.
- Ensure appointment times take account of distance required to travel (e.g. ensure they are not first thing in the morning)
- Reviewing HASU/ASU visiting times to give more flexibility for carers; ensure carers are provided with information about ward routines as a matter of course.

BSUH are completing the required action plan

6 Next steps Central Sussex

- During September and October, the GP members of the Central Sussex Programme Board and the CCG Stroke Programme Lead will be presenting to all Sussex HOSCs/HASC and CCG Governing Bodies.
- The Sussex and East Surrey Sustainability and Transformation Group has been asked to consider how to support the capacity at RSCH for stroke patients if that was needed following consultation for the patients in West Sussex currently treated by WSHT. CWS/WSHT Stroke Board to agree their next steps based on the BSUH bed re-modelling.
- Public Health England to complete a Central Sussex Public Health analysis including the impact of age and deprivation on travel by the end of September.
- All CCGs reviewing initiatives to increase the detection rate and appropriate treatment rate of Atrial Fibrillation.
- Sussex Community Foundation NHS Trust to confirm the timeframes to increase access to Early Supported Discharge/responsive services across the catchment area including HWLH CCG.

Recommendation.

The Committee is asked:

- To note the evidence provided detailing the benefits and risks of the Central Sussex Stroke Programme Board's recommendation to centralise Hyper Acute Stroke services and Acute Stroke services at the Royal Sussex County Hospital, Brighton.
- To decide whether the change proposed (i.e. not re-commencing the stroke service at Princess Royal Hospital, Haywards Heath) is considered a 'substantial service change' and if so, the timescales and methodology for any further scrutiny required
- To comment on potential methodology for public engagement on the change proposed.

Caroline Huff
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Report date: 19 September 2016

NHS High Weald Lewes Havens Clinical Commissioning Group