Working Together - Hyper Acute Stroke Services Options Appraisal

<table>
<thead>
<tr>
<th>Lead Executive:</th>
<th>Chris Edwards, Chief Officer</th>
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<tr>
<td>Lead Officer:</td>
<td>Jacqui Tuffnell, Head of Co-commissioning</td>
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<tr>
<td>Lead GP:</td>
<td>Richard Cullen, Executive GP</td>
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**Purpose:**
The purpose of this paper is to:

- Summarise the work undertaken to date, by our CCGs, in reviewing hyper acute stroke services (HAS) across South Yorkshire and Bassetlaw and North Derbyshire.
- Seek support from Governing Body to continue to progress the work (HAS). Moving towards public consultation in the autumn on the preferred option outlined in the options appraisal document.
- Following public consultation bring back a full business case with recommendation for change for Governing Body approval.

This change is confined to the hyper acute part of the stroke pathway which is the first 72 hours of care.

**Background:**
Over the past eighteen months CCGs have undertaken a review of hyper acute stroke services across South Yorkshire, Bassetlaw and North Derbyshire as Commissioners Working Together. The current model of delivery for hyper acute stroke services (HAS) is delivered from 5 units in Barnsley, Chesterfield, Doncaster, Rotherham and Sheffield.

The main drivers for considering change are outlined below and these remain. In particular a sustainable workforce to deliver hype acute stroke services remains a significant challenge.

Key messages from the review:

- 3 out of 5 HASU centers admit less than the best practice minimum of 600 per unit
- There is a shortage of medical, nursing and therapy staffing
- Door to needle time of over 1 hour in most places
- Low thrombolysis rates across all providers
- Not achieving 1 hour scanning time
- Unsustainable medical rotas
- Gaps in early supported discharge
- Education and training required for delegated staff
- Delays in endarterectomy

Our review was shared with the Yorkshire and the Humber Senate who supported our findings. The senate also recommended that our review was considered in context of the full regional picture and any potential impact.
In June 2015, CCGs supported the case for change with a clear mandate to develop options for future service delivery and the Yorkshire and the Humber Strategic Clinical Network (SCN) took forward the development of a ‘Blueprint’ for HAS across Yorkshire and the Humber.

The principle of the Blueprint was to provide a high level overview of what would provide clinically safe and sustainable HAS services and ensure the best equity of access for all our local populations.

Summary of key themes from ‘HAS Blueprint’:

Reconfiguration in South Yorkshire and Bassetlaw should include:

- A plan to reduce the number of HAS within the South Yorkshire and Bassetlaw and move to a minimum of two units
- Consider the cross-boundary impact and East Midland review for Chesterfield unit
- Transformation should include a review of patients flows
- No center should exceed the maximum stroke numbers of 1500
- Best practice travel time of 45 minutes and clinical viability
- Steps to improve clinical outcomes and provide sustainable stroke services.
- Reconfigure total number of HAS (services should deliver more than 900 interventions per year) to support clinical outcomes and improve performance seen in the SSNAP reports

The SCN presented the ‘Blueprint’ in April 2016 and subsequently the Senate reviewed the findings.

The final June recommendations in the SCN Blueprint for Hyper Acute Stroke now recommends that for South Yorkshire and Bassetlaw for HAS services should include consideration of the viability if reducing the number of HAS services to a minimum of two

Stakeholder engagement and pre-consultation
Commissioners Working Together have facilitated significant stakeholder engagement throughout the review process engaging in particular with providers and commissioners and other key partners via a series of workshops, engagement events and the stroke steering group between January 2015 and May 2016.

Between January and April 2016, Commissioners Working Together, of which we are a partner, held an open pre-consultation for the review of hyper acute stroke services across South and Mid Yorkshire, Bassetlaw and North Derbyshire. Asking ‘what matters to you when accessing urgent stroke services’ the conversations were held face to face and across social media. Thousands of people accessed the website to read about the case for change, hundreds were involved in face to face discussions and several hundred responses were received.

The key themes emerging were: being seen quickly when get to hospital, being seen and treated by knowledgeable staff, safety and quality of service, fast ambulance response/travel times and good access to rehabilitation services locally.

A communication and engagement strategy for consultation has been developed for the next phase of this work and to enable us to progress to consultation with the public about proposed changes to HAS in the autumn.

Analysis of key issues and of risks
The development of the options appraisal framework to support improvements to the delivery of HASU has been undertaken working with the Stroke Steering Group, comprising of commissioners and providers from across our Working Together partners. The Steering group has also been established to support and oversee this work. The focus has been on ensuring...
that the appropriate outcome measures and weighting were allocated to the options appraisal matrix this was then used to review the various options and those that are most likely to impact on overall improvements to outcomes and sustainability of services.

The matrix reviewed:

- Access meets 45 mins (provided by YAS)
- HASU activity levels (and the impact from reducing a HASU)
- Cross boundary impact (recognising Mid Yorkshire and East Midlands)
- 7 day working
- Workforce
- Impact on visitors (information obtained from pre-consultation)
- Finance

This approach provided a comprehensive review and evaluation to support recommendations to improve clinical outcomes and sustainability. A full business case with detailed financial analysis is currently being developed based on the outcome of the options appraisal and will be completed in the next 2 months. The working hypothesis is that positive impact on outcomes can be achieved at null cost. This is based on change that has taken place in other parts of the country with a similar approach. We are also working with our partners in West Yorkshire and Derbyshire on the potential cross-boundary impact.

**Summary of the outcome of the optional appraisal matrix**

The outcome of the options appraisal identifies a preferred option and it is proposed that we consult the public on this preferred option.

The preferred option is that we will move from a 5 hyper acute stroke unit’s model to a 3 unit model in the first stage.

The preferred option is that hyper acute stroke will be provided at Sheffield, Doncaster and Chesterfield.
Chesterfield is currently being considered as part of the East Midlands review and therefore any potential changes to the hyper acute stroke unit in Chesterfield will need to be considered in light of this review and therefore in stage 2.

The benefits of this change are that we will move to a more sustainable model of Stroke care provision for all parts of the clinical pathway and impact on the original divers for change outline in the case for change and specifically:

- Hyper acute – first 72 hours
- Acute stroke service – delivered in all 5 local sites
- Rehabilitation - delivered in all 5 local sites

Further work is required on the “do-ability “ aspect which will support the operationalizing of the recommendations in the future and following any eventual. This is being taken forward with the Stroke Steering Group. This work is currently taking place and will support the final business case and implementation plan which will come back to Governing Bodies for a final decision.

**Summary next steps**
- Change and outcome of options appraisal presented to Joint OSC in August
- Stage 2 Assurance for NHS England 17th August
- Financial analysis and full business case development September
- Formal consolation on preferred option 1st October for 14 weeks

**Patient, Public and Stakeholder Involvement:**
Involving and encouraging participation from patients, carers and the public in the Working Together programme is critical to development and shaping of any local changes. This work will be led by Working Together but influenced, developed and delivered with the support of CCG engagement and communications experts, lay members and patient and carer voice groups across mid and south Yorkshire and North Derbyshire.

**Equality Impact:**
An assessment will be undertaken as part of the options appraisal

**Financial Implications:**
The financial impact will be understood at the next stage which will be reported to the Governing Body.

**Human Resource Implications:**
Dependent upon the option which is finally approved there are likely to be workforce implications

**Procurement:**
N/A

**Approval history:**
N/A

**Recommendations:**
Governing Body is asked to:
- Note progress of the work.
- Support the preferred option to consult the public on.
- Agree to receiving the full business case with recommendation for change for final Governing Body approval following formal consultation in January 2017.
Commissioners Working Together
HASU – Stage 3 - Detailed Option Appraisal

June 2016
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<tr>
<th>Title</th>
<th>HASU Option Appraisal</th>
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<td>Author</td>
<td>Rebecca Brown, Mandy Philbin &amp; Stroke Steering Group</td>
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<tr>
<td>Target Audience</td>
<td>Commissioner Working Together Board</td>
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<td>Date of Issue</td>
<td>28/6/16</td>
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**To be read in conjunction with**

- Case for change Scenario appraisal document
- SCN HASU Blueprint for Yorkshire and the Humber
- Yorkshire and the Humber Senate report on the case for change
- Yorkshire and the Humber Senate report on the SCN HASU Blueprint

**File name and path**

HASU Appraisal V6 for Boards

**Document History:**

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<td>RB</td>
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<td>10/05/16</td>
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<td>14/06/16</td>
<td>5</td>
<td>MP</td>
<td>Visual added for activity and options (post board)</td>
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<td>29th June</td>
<td>6</td>
<td>MP/WC</td>
<td>Consideration for 1500 based on SCN Blueprint</td>
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Approval by: Programme Executive Group (PEG)

**Governance route:**

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<tr>
<td>Stroke Steering Group</td>
<td>8/6/16</td>
<td>5</td>
<td>For discussion</td>
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<tr>
<td>Working Together Senior Management Team</td>
<td>24/6/16</td>
<td>5</td>
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Contents
1.0 Executive Summary ................................................................. 4
2.0 Introduction .................................................................................. 6
2.1 Purpose of the document ................................................................. 7
3.0 High level options appraisal – To date ........................................ 7
3.1 Case for Change - Stage 1 Option appraisal ................................. 9
3.2 Y&H Blueprint - Stage 2 Option appraisal .................................. 8
3.3 Options going forward to stage 3 option appraisal ..................... 10
4.0 Evaluating the options in stage 3 .................................................. 10
4.1 Learning from elsewhere .............................................................. 10
4.2 Principles of Redesigning Services .............................................. 11
4.3 Option Appraisal Criteria .............................................................. 11
5.0 Option Appraisal ........................................................................ 12
5.1 Configuration for consolidation of HASU (further working detail Appendix 1) ........................................................................ 12
6.0 Conclusion .................................................................................... 13
6.1 Preferred Option/s ........................................................................ 13

Appendix 1 – Assessment Criteria and Options Appraisal
1.0 Executive Summary

In 2007 the Department of Health published the National Stroke Strategy providing a national quality framework to secure improvements across the stroke pathway. Then in 2014, the NHS Five Year Forward View set out a positive view for future new models of care, indicating the need for rationalisation and sustainability in services in order to meet growing demands, provide high quality and remain financially viable.

A detailed baseline review across South Yorkshire, Bassetlaw and North Derbyshire demonstrated a gap analysis for the delivery of Hyper Acute Stroke Units (HASUs) within the region and formulated a “Case for Change (May 2015)” which was supported by the Commissioners Working Together partner CCGs, received positive support from the Yorkshire and the Humber Clinical Senate and was shared with acute provider Boards.

Further support and recommendations have been identified in the Hyper Acute Stroke Services Yorkshire and Humber “Blueprint” report which was undertaken by the Yorkshire and the Humber Strategic Clinical Networks.

Gaps were identified within service delivery and highlighted in both documents, difficulties in the ability to provide high quality, Sentinel Stroke National Audit Programme SSNAP performance data and sustainable services due to recurrent issues with:

- Workforce, skills and expertise
- Capacity and demand

And being able to meet fundamental minimum numbers of stokes per HASU recognised as being key criteria required to meet national standards and enable sustainable services for the future.

All documents have been fundamental in supporting the development for this Options Appraisal.

This Options Appraisal provides a comprehensive review, evaluation and proposal for a new model of care based on quantitative data for HASU activity, ambulance transfer times, SSNAP submission data (as seen in the Blueprint) and qualitative data gained through the Commissioners Working Together (CWT) engagement with service staff, clinicians and managers and pre-consultation with service users regarding potential changes to current models of service delivery.

- The outcome of the Option Appraisal supports the radical transformation and reduction of HASUs from 5 to 4, 3 or, supporting the Networks regional requirements of 2. Based on the options appraisal matrix it would be viable to reduce the number of HASUs based on true data outcomes.
• Consideration to the potential reviews/impact of any transformational changes within North Derbyshire and Mid York’s given the impact on cross boundary patient flow

To be able to develop a more sustainable network for stroke care a consideration needs to be given to the following options:

<table>
<thead>
<tr>
<th>Option</th>
<th>Number of Units</th>
<th>Continue to deliver HASU services</th>
<th>Remove</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 3b</td>
<td>4 unit delivery (Working Together Footprint)</td>
<td>Sheffield, Barnsley, Chesterfield and Doncaster</td>
<td>Rotherham</td>
</tr>
<tr>
<td>Option 3c</td>
<td>3 unit delivery (Working Together Footprint)</td>
<td>Sheffield, Doncaster and Chesterfield</td>
<td>Barnsley and Rotherham</td>
</tr>
<tr>
<td>Option 3d</td>
<td>2 unit delivery (Supporting Network changes)</td>
<td>Sheffield and Doncaster</td>
<td>Barnsley, Rotherham and Chesterfield</td>
</tr>
</tbody>
</table>
It is important to note that this Options Appraisal considers changes to the Hyper-Acute Stroke Service, not the wider service. Hyper acute stroke care is for a clearly defined period (up to 72 hours). The proposed changes refer to the first 72 hours of emergency stroke treatment, and not acute stroke care or rehabilitation.

- Further consideration is required leading to implementation of the options. This specifically related to the do ability of each option. The identified organisations need to be able to demonstrate their “do-abiity” to be able to support the increase in activity. This will mean detailed capability assessments for:
  - Capacity and demand assessment,
  - Understand displaced activity,
  - Financial modelling
  - Pathway review, supporting repatriation/rehabilitation.

- Considerations of future impact and developments need to be kept within the sight of the developing South Yorkshire and Bassetlaw and neighbouring Sustainability Transformation Plans and regional Clinical Network recommendations (i.e. the impact on Chesterfield/ Nottingham and Sherwood Forest review).

2.0 Introduction

The way that stroke services are organised will have a major impact on a person's recovery after a stroke. We know that the most important interventions are maintaining homeostasis and preventing stroke-associated complications. We know that thrombolysis delivered quickly will reduce the chances of a disability. There is also a strong evidence base that effective prevention strategies after stroke and transient ischaemic attack (TIA) will reduce the risk of reoccurrence when supported by specialist rehabilitation both in hospital and in the community. Data from the Sentinel Stroke National Audit Programme (SSNAP) has shown that larger stroke services operate more efficiently than smaller services and they are more likely to be financially viable as well. It has been shown that levels of nurse staffing also have a direct impact on the chance of patients surviving.

To deliver the best outcomes, it is therefore vital that patients are managed in a well organised service that can deliver the best quality of care and unfortunately the SSNAP data clearly shows that there are still unacceptable variations in the quality of care across England. Given the major shortages in medical workforce that are going to increase in the coming years, the most rational solution, particularly in parts of the country with high population density, will be for providers and commissioners to work together to centralise inpatient care in a smaller number of stroke centres, as suggested in the NHS Five Year Forward View published in 2014. Where this is not possible, for
whatever reason, then telemedicine will provide at least partial solutions to existing variations in the care that a patient might expect to receive. Professor Tony Rudd CBE. National Clinical Director for Stroke, NHS England.

2.1 Purpose of the document

This Options Appraisal document sets out the options being considered by commissioners for the long term provision of Hyper-Acute Stroke Services within South Yorkshire, Bassetlaw and North Derbyshire and the risks and benefits with each. The purpose of this paper is to provide the information required by the Governing Bodies from each of the Clinical Commissioning Groups, along with the Commissioners Working Together programme executive group to make a decision on a preferred option/s that will be taken to public consultation in September 2016.

3.0 High level options appraisal – to date

The three sub regions of Yorkshire and Humber have identified the need to undertake an assurance review to ascertain resilience of the current HASU provision. The review has been mandated by the Yorkshire and Humber Chief Officers and is being delivered through existing sub-regional governing and accounting arrangements. For South Yorkshire, Bassetlaw and North Derbyshire, the review is being undertaken as part of Commissioners Working Together.

Figure 1 - Summary of Option Appraisal Process

In the early part of 2015 a HASU case for change and scenario appraisal document were developed with key stakeholders and taken through CWT
governance. This resulted in a clinical senate review of the aforementioned documents in July 2015.

As is clear from the phase 1 HASU case for change, the variation in quality and performance against standards across South Yorkshire, Bassetlaw and North Derbyshire, is of concern to commissioners. The key messages from the phase 1 review are as follows:

- 3/5 of HASU centres admit less than 600 strokes per annum.
- There is a shortage of medical, nursing & therapy staffing in all provider organisations.
- Door to needle times of over 1 hour in most cases
- Very low thrombolysis rates across all providers.
- Not achieving 1 hour scanning.
- Unsustainable medical rotas.
- Education & training required for delegated staff.
- Gaps in Early Supported Discharge.
- Delays in endarterectomy.
- 2 units within 15 miles of each other.
- There is further work required to ensure effective use of telemedicine.

### 3.1 Case for Change - Stage 1 Option Appraisal

All Commissioners Working Together partner CCGs supported 'transformation' of HASUs across the CWT footprint. This decision was also supported by the Yorkshire and the Humber Clinical Senate. Stage 1 of the option appraisal outlined in the table below.

<table>
<thead>
<tr>
<th>Case for Change - Stage 1 Option Appraisal</th>
<th>Outcome</th>
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</thead>
<tbody>
<tr>
<td>Option 1 – Do nothing</td>
<td>Discounted on the basis of current quality, performance and sustainability challenges</td>
</tr>
<tr>
<td>Option 2 – Improve quality and sustainability of current configuration of 5 HASU's</td>
<td>Discounted on the basis of the likelihood of efforts leading to improved quality, performance and sustainability</td>
</tr>
<tr>
<td>Option 3 – Transformation of HASU's across CWT footprint</td>
<td>Supported on the basis of likelihood to improve quality performance and sustainability of HAS for all local population</td>
</tr>
</tbody>
</table>

### 3.2 Y&H Blueprint - Stage 2 Option Appraisal
Stage 2 involved a ‘purest’ approach by the SCN which ruled out/discounted keeping 5 centres on the basis of not meeting minimum recommended number of strokes for each centre. Stage 2 is outlined in the table below.

<table>
<thead>
<tr>
<th>Y&amp;H Blueprint - Stage 2 option appraisal</th>
<th>Outcome</th>
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<tbody>
<tr>
<td>Option 3a – 5 centres</td>
<td>Discounted on basis of 5 centres not being able to meet the minimum recommended number of stroke cases for each single centre</td>
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<tr>
<td>Option 3b - 4 centres</td>
<td>Option includes consideration of the North Derbyshire and Hardwick populations and the Chesterfield HASU centre</td>
</tr>
<tr>
<td>Option 3c – 3 centres</td>
<td>Option uses 1200 as upper limit and does not take potential services changes in East Midlands into consideration</td>
</tr>
<tr>
<td>Option 3d – 2 centres Y&amp;H blueprint – using the 1500 metrics</td>
<td>To be considered on the basis of the scale of ambition required in STP development, dependant on configuration across the region</td>
</tr>
<tr>
<td>Option 3e – 1 centre</td>
<td>Discounted on basis of number of strokes across CWT and maximum number for a single centre</td>
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</tbody>
</table>

Using the principles of travel times and size of unit, the final recommendation from the SCN Blueprint for South Yorkshire, Bassetlaw region was for a minimum of 2 units for South Yorkshire and Bassetlaw.

There needs to be consideration and recognition of any transformational changes to stroke service delivery within the East Midlands Clinical Network and the potential impact in South Yorkshire and Bassetlaw. A verbal update from East Midlands Clinical Senate in May 2016 identified that the strategic review for this catchment remained outstanding.

The blueprint analysis in its early draft form did not use 1,500 as the upper limit for the size of a HASU unit; instead the clinical consensus in the SCN was to use 1,200 strokes per annum. Given the scale of ambition required in Sustainability and Transformation Plans to ensure services are sustainable for the future, the Commissioners Working Together partners have made the decision to model options on the upper threshold for size of a unit. If taken in the context of Yorkshire and Humber, and the upper limit applied, potentially there would be scope to move to fewer units across the region. This potentially could result in 2 units for South Yorkshire, Bassetlaw and North Derbyshire. It should be noted that this configuration will have the potential to increase HASU unit/s to exceed the 1200 threshold endorsed by the SCN but be supported by the ambitions of Yorkshire and Humber Senate of 1500 patient threshold.
The final recommendation from the Blueprint now recommends the use of 1500 strokes as the maximum number of strokes per unit.

### 3.3 Options going forward to stage 3 option appraisal

Given the outcome of the two stages of option appraisal already undertaken, the options being taken forward to stage 3 are as follows:

- **Option 3b** – reduce to 4 HASU centres
- **Option 3c** – reduce to 3 HASU centres
- **Option 3d** – reduce to 2 HASU centres

Consideration needs to be made when supporting “do ability” given the impact of reviews ongoing in Mid Yorks and North Derbyshire.

### 4.0 Evaluating the options in stage 3

#### 4.1 Learning from elsewhere

CCGs must make sure that they have a process in place for appraising and testing options. There should be a robust, documented process for sifting any long-list of options into a shortlist. There should also be a framework in place to further test shortlisted options to make sure that they are sufficiently robust and fit for purpose. This framework should also be used on any new options that emerge from the consultation. The options appraisal must include an analysis of the implications of no change. In order to arrive at such decisions, it is essential that sound, robust analysis is undertaken.

The evidence is strong that being admitted to a specialist stroke centre with access to stroke expertise 24 hours a day, seven days a week, results in better outcomes than being managed without these resources. The improved outcomes arise from careful attention and treatment to maintain homeostasis, skilled nursing and medicine to avoid complications and early intervention to treat complications before they become life-threatening.

Reorganisation of stroke services therefore needs to take into account where the benefits lie for the population that the hyper acute stroke services are serving. High quality care, including access to intravenous thrombolysis should be available to all, with sufficient provision in place, in areas with a high population density.

However, it is important to recognise that in rural areas providing a well-staffed unit working 24/7 that is also within a 45-60 minute drive in a blue light ambulance might not be possible.

As supported by the case for change and feedback from the Clinical Senate, doing nothing and maintaining poor services for all is not an option. We need
to ensure that the greatest number of people as possible receive high quality, safe and sustainable services, for 95% of the population

4.2 Principles of Redesigning Services

Factors to consider for urban areas

The following factors should be considered when looking into redesigning stroke services in urban areas:

• Clinical and financial critical mass, of >600 and <1,500 stroke admissions per annum.
• Balance between volumes and financial viability.
• Travel time should be ideally 30 minutes but no more than 60 minutes.

Factors to consider for rural areas

The following factors should be considered when looking into redesigning stroke services in rural areas:

• Clinical and financial critical mass standards achievable in urban areas may not always be feasible in low population density areas.
• Balance between volumes, travel times and financial viability.

Standards that must not be compromised are:

• Specialist assessment on admission (24 hours a day) and daily thereafter during hyper-acute phase (the first 72 hours after having a stroke).
• Stroke unit staffed and equipped in line with best practice specification (guidance is in the development phase).
• 24-hour access to scanning.
• Access to thrombolysis, but less important than other aspects of care.
• Access to therapy.
• Door to needle time.

4.3 Option Appraisal Criteria

Commissioners Working Together have developed an evaluation criteria to use as part of the decision making process to assess potential options against criteria which have been weighted in order of importance by the Stroke Steering Group. The criteria use the principles that are set out in the Stroke Services: Decision support Guide. These have then been weighted by the CWT stroke steering group and options assessed against these.

It is agreed that quality of care should be the highest priority when it comes to decisions about service provision. However it is important to balance the other elements of the criteria to ensure that our services are maintained with the right level of skilled workforce, at locations that are accessible for patients, and in a way that uses our resources as efficiently as possible.
Agreement at the April Stoke Steering group facilitated the appropriate priority and weighting criteria to support the options appraisal matrix: Matching the criteria against the impact provides a weighted outcome measure that supports the future decision making process.

Commissioners Working Together evaluation criteria

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<thead>
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<th>Criteria and data to support evaluation</th>
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<tr>
<td>Access meets 45 minutes (ambulance conveyance times)</td>
<td>Access meets 45 minutes for 95% of population</td>
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<tr>
<td>HASS activity levels (displaced activity)</td>
<td>Clinical critical mass, of &gt;600 and &lt;1,500 stroke admissions per annum</td>
</tr>
<tr>
<td>Cross boundary impact (outside WTP footprint)</td>
<td>Transformation should minimise cross-boundary impact</td>
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<td>7 day working</td>
<td>Is there a 7 day service being offered?</td>
</tr>
<tr>
<td>Adequate workforce</td>
<td>Performance against SSNAP scores (case for change)</td>
</tr>
<tr>
<td>Impact on visitors/carers (Pre consultation evaluation)</td>
<td>Impact of change on visitors and carers travel time</td>
</tr>
</tbody>
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### 5.0 Option Appraisal

Building on the evaluation criteria the Stroke Steering Group provided clinical guidance and judgement around the importance and value on each element. This supported a weighting scoring system which when matched against a value score (1 being excellent to 5 very badly) there was clear demonstration to the capability and impact of individual organisations to deliver a HASU. The evaluation of the matrix is consolidated in 5.1 with the working documentation shown in Appendix 1.

### 5.1 Configuration for consolidation of HASU (further working detail Appendix 1)

<table>
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<th>Remove Rotherham</th>
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<tr>
<td>Reduce to 4 units</td>
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</tr>
<tr>
<td>Option 3c</td>
<td>Remove Rotherham and Barnsley</td>
</tr>
<tr>
<td>Reduce to 3 units</td>
<td></td>
</tr>
<tr>
<td>Option 3d</td>
<td>Remove Rotherham, Barnsley, Chesterfield</td>
</tr>
<tr>
<td>Reduce to 2 units</td>
<td></td>
</tr>
</tbody>
</table>
6.0 Conclusion

6.1 Preferred Option/s

- Support option 3c as the preferred option to consult the public on and recommend to CCG commissioners. This option would result in decommissioning HASU from a Barnsley & Rotherham. Support the implementation of any future change managed through the Stroke Steering Group & SRG’s.

- Give further consideration to the scale of ambition and change required to achieve Option 3d. It may be appropriate to undertake a stepped approach to this option, over a longer period of time with support and direction from the Clinical Senate pending east Midland review of HASU and transformation plans within Mid Yorks.

- It is the recommendation that option(s) 3c is for consideration by the Commissioners Working Together board and is taken forward to public consultation in South Yorkshire and Bassetlaw. In addition and as part of the consultation we would wish to raise awareness of the impact of any further potential change as part of East Midlands review of HASU services and the potential of what is described in option 3d. This option and approach is now supported by the most recent recommendations from the SCN June Blueprint for HAS which recommended that a minimum of 1500 strokes should be considered in any reconfiguration of stroke services.
### Appendix 1

#### 7.1 Assessment Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Assessment</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access meets 45 minutes</td>
<td>5 – excellent</td>
<td>Access meets 45 min for 95% population (meets current model)</td>
</tr>
<tr>
<td>Based on YAS transfer time. Optimum benchmark 45mins. Transfer time is for total stroke population</td>
<td>4 – good</td>
<td>Access meets 45 min for 75 - 94% population</td>
</tr>
<tr>
<td>Weighted as 3</td>
<td>3 – adequate</td>
<td>Access meets 45 min for 51 - 76% population</td>
</tr>
<tr>
<td></td>
<td>2 – poor</td>
<td>Access meets 45 min for 26 - 50% population</td>
</tr>
<tr>
<td></td>
<td>1 – very poor</td>
<td>Access meets 45 min for 25 - 0% population</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Assessment</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HASU activity levels</td>
<td>5 – excellent</td>
<td>Ensures 2 other HASUs are viable due to transfer in activity (over 900)</td>
</tr>
<tr>
<td>Based on a viable option of 900-1,200 as optimum delivery for all units. For 2 units to be modelled on 1500 patients</td>
<td>4 – good</td>
<td>Ensures 2 other HASUs are viable due to transfer in activity (over 600)</td>
</tr>
<tr>
<td></td>
<td>3 – adequate</td>
<td>Ensures 1 other HASU is viable due to transfer in activity (over 900)</td>
</tr>
<tr>
<td></td>
<td>2 – poor</td>
<td>Ensures 1 other HASU is viable due to transfer in activity (over 600)</td>
</tr>
<tr>
<td>Weighted as 4</td>
<td>1 – very poor</td>
<td>Ensures 0 other HASUs are viable due to transfer in activity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Assessment</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross boundary impact</td>
<td>5 – excellent</td>
<td>No impact</td>
</tr>
<tr>
<td>Weighted as 2</td>
<td>3 – adequate</td>
<td>Minimal impact (affects 2 HASU, not tipping them over 1200)</td>
</tr>
<tr>
<td></td>
<td>1 – very poor</td>
<td>Tips one centre over 1500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Assessment</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 day working</td>
<td>5 – excellent</td>
<td>Reduces number of non-compliant centres by 4</td>
</tr>
<tr>
<td>Based on accessibility and impact on clinical outcomes</td>
<td>4 – good</td>
<td>Reduces number of non-compliant centres by 3</td>
</tr>
<tr>
<td>Weighted as 5</td>
<td>3 – adequate</td>
<td>Reduces number of non-compliant centres by 2</td>
</tr>
<tr>
<td></td>
<td>2 – poor</td>
<td>Reduces number of non-compliant centres by 1</td>
</tr>
<tr>
<td></td>
<td>1 – very poor</td>
<td>Does not reduce non-compliant centres</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Assessment</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate workforce</td>
<td>5 – excellent</td>
<td>Removes 2 HASU who have less staffing than required in 3 of the reported SSNAP areas</td>
</tr>
<tr>
<td>Based on resilience and sustainability of service.</td>
<td>4 – good</td>
<td>Removes 1 HASU who have less staffing than required in 3 of the reported SSNAP areas</td>
</tr>
<tr>
<td>Weighted as 6</td>
<td>3 – adequate</td>
<td>Removes 1 HASU who have less staffing than required in 2 of the reported SSNAP areas</td>
</tr>
<tr>
<td></td>
<td>2 – poor</td>
<td>Removes 1 HASU who have less staffing than required in 1 of the reported SSNAP areas</td>
</tr>
<tr>
<td></td>
<td>1 – very poor</td>
<td>Does not affect any underperforming HASUs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Assessment</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient experience and Impact on visitors/carers</td>
<td>5 – excellent</td>
<td>Travel times are increased for 20% of the population</td>
</tr>
<tr>
<td></td>
<td>4 – good</td>
<td>Travel times are increased for 40% of the population</td>
</tr>
<tr>
<td></td>
<td>3 – adequate</td>
<td>Travel times are increased for 60% of the population</td>
</tr>
<tr>
<td></td>
<td>2 – poor</td>
<td>Travel times are increased for 80% of the population</td>
</tr>
<tr>
<td>Weighted as 1</td>
<td>1 – very poor</td>
<td>Travel times are increased for 100% of the population</td>
</tr>
</tbody>
</table>
### Option 3b - 4 Units

HASU 2016 OPTION APPRAISAL

#### Step 1 - Weight the parameters

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Relative score</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access meets 45 mins</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>HASU activity levels</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Cross boundary impact</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>7 day working</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Workforce</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Patient experience - Impact on visitors</td>
<td>10</td>
<td>10</td>
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</table>

#### Step 2 - Score each option

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Option 3b (i)</th>
<th>Option 3b (ii)</th>
<th>Option 3b (iii)</th>
<th>Option 3b (iv)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displace</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>HASU activity levels</td>
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</tr>
<tr>
<td>Cross boundary impact</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>7 day working</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Workforce</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Impact on visitors</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
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</tbody>
</table>

#### Step 3 - Weighted results

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weighted Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displace</td>
<td>0.71</td>
</tr>
<tr>
<td>HASU activity levels</td>
<td>0.76</td>
</tr>
<tr>
<td>Cross boundary impact</td>
<td>0.29</td>
</tr>
<tr>
<td>7 day working</td>
<td>0.46</td>
</tr>
<tr>
<td>Workforce</td>
<td>0.29</td>
</tr>
<tr>
<td>Impact on visitors</td>
<td>0.24</td>
</tr>
</tbody>
</table>

The higher the score the more positive option is for removal.

<table>
<thead>
<tr>
<th>Weighted Result</th>
<th>2.76</th>
<th>3.19</th>
<th>3.42</th>
<th>3.43</th>
<th>100%</th>
</tr>
</thead>
</table>
## Step 1 - Weight the parameters

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Relative score</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access meets 45 mins</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>HASU activity levels</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Cross boundary impact</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>7-day working</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Workforce</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Impact on visitors</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

### Step 2 - Score each option

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Score</th>
<th>Option 3c (i)</th>
<th>Option 3c (ii)</th>
<th>Option 3c (iii)</th>
<th>Option 3c (iv)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access meets 45 mins</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>HASU activity levels</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Cross boundary impact</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>7-day working</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Workforce</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Impact on visitors</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

### Step 3 - Weighted results

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weighted Result</th>
<th>Option 3c (i)</th>
<th>Option 3c (ii)</th>
<th>Option 3c (iii)</th>
<th>Option 3c (iv)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access meets 45 mins</td>
<td>0.71</td>
<td>0.71</td>
<td>0.71</td>
<td>0.71</td>
<td>0.71</td>
</tr>
<tr>
<td>HASU activity levels</td>
<td>0.57</td>
<td>0.95</td>
<td>0.95</td>
<td>0.76</td>
<td>0.76</td>
</tr>
<tr>
<td>Cross boundary impact</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
</tr>
<tr>
<td>7-day working</td>
<td>0.48</td>
<td>0.71</td>
<td>0.71</td>
<td>0.48</td>
<td>0.71</td>
</tr>
<tr>
<td>Workforce</td>
<td>0.29</td>
<td>0.57</td>
<td>1.14</td>
<td>1.14</td>
<td>0.29</td>
</tr>
<tr>
<td>Impact on visitors</td>
<td>0.24</td>
<td>0.24</td>
<td>0.24</td>
<td>0.24</td>
<td>0.24</td>
</tr>
</tbody>
</table>

The higher the score the more positive option is for removal:

- 2.37
- 3.48
- 4.09
- 3.82
- 3.86
- 3.13
### Step 1 - Weight the parameters

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Relative score</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access meets 45 mins</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>HASU activity levels</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Cross boundary impact</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>7-day working</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Workforce</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Impact on visitors</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

### Step 2 - Score each option

- **5 = excellent**
- **4 = good**
- **3 = adequate**
- **2 = poor**
- **1 = very poor**

#### Unweighted Scores

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Option 3d (i)</th>
<th>Option 3d (ii)</th>
<th>Option 3d (iii)</th>
<th>Option 3d (iv)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retain Sheffield &amp; Barnsley</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>HASU activity levels</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Cross boundary impact</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>7-day working</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Workforce</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Impact on visitors</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

#### Weighted Results

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Option 3d (i)</th>
<th>Option 3d (ii)</th>
<th>Option 3d (iii)</th>
<th>Option 3d (iv)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retain Sheffield &amp; Barnsley</td>
<td>0.71</td>
<td>0.29</td>
<td>0.71</td>
<td>0.29</td>
</tr>
<tr>
<td>HASU activity levels</td>
<td>0.38</td>
<td>0.19</td>
<td>0.95</td>
<td>0.19</td>
</tr>
<tr>
<td>Cross boundary impact</td>
<td>0.10</td>
<td>0.29</td>
<td>0.48</td>
<td>0.10</td>
</tr>
<tr>
<td>7-day working</td>
<td>0.48</td>
<td>0.48</td>
<td>0.24</td>
<td>0.48</td>
</tr>
<tr>
<td>Workforce</td>
<td>0.57</td>
<td>0.86</td>
<td>0.86</td>
<td>1.14</td>
</tr>
<tr>
<td>Impact on visitors</td>
<td>0.24</td>
<td>0.24</td>
<td>0.24</td>
<td>0.24</td>
</tr>
</tbody>
</table>

### Step 3 - Weighted results

The higher the score the more positive option is for retention of those services.