Briefing on proposed changes in West Yorkshire to specialist vascular services for adults:

Reconfiguration of emergency and complex planned surgery and interventional radiology services provided in arterial centres

The following briefing provides an overview of the proposed reconfiguration of Specialist Vascular Services for adults in West Yorkshire by NHS England and sets out the proposed approach to future public engagement and consultation.

The West Yorkshire Joint Overview and Scrutiny Committee (WY JHOSC) is requested to:

a. agree the proposed approach to public engagement and consultation;

b. advise on any changes or additions to the proposed approach to public engagement and consultation the committee suggests.

Summary of Changes

What change is proposed?

The change proposed refers to the number of arterial centres required to provide complex vascular care across West Yorkshire and in particular those currently delivered by Calderdale and Huddersfield NHS Foundation Trust (CHFT) and Bradford Teaching Hospitals NHS Foundation Trust (BTHT). The vascular services provided by Leeds Teaching Hospitals NHS Trust (LTHT) will remain the same.

The proposal relates to complex vascular inpatient care only (this involves major interventions to restore blood supply to arteries to prevent death and severe disability). It will mean there are no dedicated vascular beds at CHFT, where currently these are located at Huddersfield Royal Infirmary (HRI). Instead these beds will be located onsite at Bradford Royal Infirmary (BRI) alongside the existing vascular beds.

Why it is needed?

Services are currently not compliant with the NHS England national service specifications for specialised vascular care. Catchment populations are too small leading to insufficient procedures being delivered to maintain skills and competencies. There are also significant workforce challenges in this system – currently BTHT and CHFT provide a joint alternating weekly on call rota where only one of the two arterial centres is on call at any one time. This is considered sub-optimal and unacceptable as a long term solution.
What is scale of impact for patients?

The change will affect approximately 800 patients per year who would currently have their surgery and related inpatient stays in Huddersfield and in future will receive it in Bradford. This change represents 7% of the total vascular activity across West Yorkshire with all other activity currently provided in Huddersfield, including day case (minor) surgery, diagnostics and outpatient clinics, remaining at HRI.

What engagement is planned?

A full engagement and formal consultation process across West Yorkshire has been planned over three phases, from January 2019 until July 2019 as detailed in the paper.
1. Introduction

This briefing covers the following areas:

- Definition of specialist vascular services
- National Service Specification requirements for specialist vascular services
- Description of the current service
- Options Appraisal for the future service, including the options considered, differentiating factors and the preferred option
- Impact of the preferred option
- Proposed approach to public engagement and consultation

2. Definition of Vascular Specialist Services

Specialised services support people with a range of rare and complex conditions. They often involve treatments provided to patients with rare cancers, genetic disorders or complex medical or surgical conditions. They deliver cutting-edge care and are a catalyst for innovation, supporting pioneering clinical practice in the NHS.

Specialised services are not available in every local hospital because they have to be delivered by specialist teams of doctors, nurses and other health professionals who have the necessary skills and experience. Unlike most healthcare, which is planned and arranged locally by Clinical Commissioning Groups (CCGs), specialised services are planned nationally and regionally by NHS England.

The chief aim of vascular services is to reconstruct, unblock or bypass arteries to restore blood flow to organs. These procedures reduce the risk of sudden death, prevent stroke and reduce the risk of amputation.

There are a number of risk factors that are known to contribute to the rising demand on vascular services both locally and nationally:

- vascular disease is a major cause of mortality in people with diabetes and there are an estimated 3m people with diabetes mellitus in England (NHS England schedule 2).
- 1 in every 4 adults and 1 in every 5 children in England is obese (NHS, conditions website). Obesity can cause serious health related problems which include; type 2 diabetes, heart disease, some cancers and stroke.
- in the long term diabetes can lead to complications of the veins and arteries which require vascular surgery, including in the worst cases major amputations.

NHS England commissions adult specialist vascular services, including all vascular surgery and vascular interventional radiology services, with the exception of the treatment of varicose veins. This includes services delivered in non-arterial centres and on an outreach basis as part of a provider network.
Specialist vascular services are commissioned by NHS England because:

- the number of individuals requiring the services is relatively small;
- the cost of providing the service is high because of the specialist interventions involved;
- the number of doctors and other expert staff trained to deliver the service is small; and
- the cost of treating some patients is high, placing a potential financial risk on individual CCGs.

3. National Service Specification Requirements

The NHS England Service Specification for specialist vascular services and the Vascular Society of Great Britain and Ireland’s (VSGBI) “The Provision of Services for Patients with Vascular Disease 2018” both state that vascular services should be organised in integrated vascular networks. These networks should consist of “arterial centres” which provide arterial surgery and complex interventions, and other hospitals which provide outpatient clinics, diagnostics, daycase surgery and interventions, review of in-patient referrals and rehabilitation. This ensures that patients have direct local access to the vascular service and travel to the arterial centre is only for specific complex interventions.

The services provided in arterial centres and non-arterial centres are shown in the table below:

<table>
<thead>
<tr>
<th>Service</th>
<th>Arterial Centre</th>
<th>Non-Arterial Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency surgery &amp; interventional radiology</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>e.g. ruptured abdominal aortic aneurysms, emergency treatment of blocked blood vessels (ischaemia)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned inpatient surgery &amp; interventional radiology</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>e.g. planned surgery for abdominal aortic aneurysms, planned major limb amputations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned Day Case surgery &amp; interventional radiology</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>e.g. varicose veins, creating access to blood vessels for kidney dialysis patients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnostic procedures</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Outpatient Clinics</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Advice to other specialties (e.g. inpatient referrals)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Emergency support to other specialties</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
The crucial differences between an arterial centre and a non-arterial centre are the seriousness of the conditions treated and the complexity and risk of the procedures undertaken. The arterial centre receives all vascular emergencies requiring vascular surgery or interventional radiology, along with all vascular inpatient planned (elective) care and it has dedicated vascular inpatient beds. A non-arterial centre provides everything other than very complex and emergency vascular care and has no dedicated vascular hospital beds.

The following key requirements for a vascular network and the arterial centres are specified in the national service specification:

a. **Catchment Population.**
   The national service specification and the VSGBI both state that a minimum catchment population of 800,000 is considered necessary for an arterial centre. This is in order to generate sufficient volume of cases to maintain the skills and competence of the surgeons and interventional radiologists.

b. **Consultant Workforce.**
   Inpatient arterial surgery and interventional radiology must be available 24/7 in the arterial centre through an on call rota covered by vascular surgeons and vascular interventional radiologists. To provide a resilient rota and an acceptable work-life balance for the consultants this requires a consultant team of a minimum of 6 surgeons and 6 interventional radiologists for each arterial centre.

c. **Procedures per year.**
   To maintain the skills and competence of the surgeons and interventional radiologists, the national service specification indicates that each arterial centre should undertake:

   i. At least 60 abdominal aortic aneurysm (AAA) procedures (10 per surgeon); and

   ii. At least 50 carotid endarterectomy (CEA) procedures (a procedure to reduce the risk of strokes by removing fatty deposits which narrow the carotid artery and restrict blood flow to the head and neck).

The compliance of the current vascular services in West Yorkshire on these requirements is described in the next section.
4. Current Service

There are currently three arterial centres providing complex, inpatient vascular care in West Yorkshire:

- Bradford Teaching Hospitals NHS Foundation Trust (BTHFT) - at Bradford Royal Infirmary (BRI)
- Calderdale and Huddersfield NHS Foundation Trust (CHFT) – at Huddersfield Royal Infirmary (HRI)
- Leeds Teaching Hospitals NHS Trust (LTHT) – at Leeds General Infirmary (LGI)

There are also two non-arterial centres providing other vascular services

- Mid Yorkshire Hospitals NHS Trust (MYHT), Pinderfields General Hospital. Working with the LGI arterial centre.
- Airedale NHS Foundation Trust (ANHSFT), Airedale General Hospital. Working with the BRI arterial centre.

The population of Harrogate and District is served by York Teaching Hospital NHS Foundation Trust at York District Hospital, which is the arterial centre supporting the population of North Yorkshire. Therefore, although Harrogate is part of the West Yorkshire and Harrogate Health and Care Partnership, vascular services for Harrogate are not part of, or affected by, this proposal. The map below shows the location of the current arterial centres and non-arterial centres across West Yorkshire:
Outcomes for all three arterial centres in West Yorkshire are good. Risk adjusted mortality is either above or in line with the national expected levels, as shown by the data in the table below for four key surgical procedures which is taken from the National Vascular Registry Annual Report for 2017 (the most recent published). Further information can be found in the national vascular registry website at https://www.vsqip.org.uk/surgeon-outcomes/

<table>
<thead>
<tr>
<th>Procedure</th>
<th>BTHT</th>
<th>CHFT</th>
<th>LTHT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aortic Aneurysm Repair (AAA)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Cases</td>
<td>37</td>
<td>30</td>
<td>78</td>
</tr>
<tr>
<td>Risk Adjusted Survival</td>
<td>98.4%</td>
<td>100%</td>
<td>99.6%</td>
</tr>
<tr>
<td>National Survival</td>
<td>98.7%</td>
<td>98.7%</td>
<td>98.7%</td>
</tr>
<tr>
<td><strong>Carotid Endarterectomy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015/17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Cases</td>
<td>48</td>
<td>45</td>
<td>46</td>
</tr>
<tr>
<td>Risk Adjusted Survival</td>
<td>98.4%</td>
<td>100%</td>
<td>95.8%</td>
</tr>
<tr>
<td>National Survival</td>
<td>97.9%</td>
<td>97.9%</td>
<td>97.9%</td>
</tr>
<tr>
<td><strong>Lower Limb Bypass</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015/17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Cases</td>
<td>249</td>
<td>159</td>
<td>330</td>
</tr>
<tr>
<td>Risk Adjusted Survival</td>
<td>97.5%</td>
<td>97.4%</td>
<td>97.5%</td>
</tr>
<tr>
<td>National Survival</td>
<td>97.4%</td>
<td>97.4%</td>
<td>97.4%</td>
</tr>
<tr>
<td><strong>Lower Limb Amputation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015/17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Cases</td>
<td>102</td>
<td>50</td>
<td>250</td>
</tr>
<tr>
<td>Risk Adjusted Survival</td>
<td>97%</td>
<td>95%</td>
<td>93.2%</td>
</tr>
<tr>
<td>National Survival</td>
<td>94.6%</td>
<td>94.6%</td>
<td>94.6%</td>
</tr>
</tbody>
</table>

The compliance of the current service against the requirements set out in section 4 above is described below:

**a. Catchment Population.**

Modelling of the catchment populations of the arterial centres in West Yorkshire (based on shortest travel times) undertaken for the West Yorkshire Association of Acute Trusts (WYAAT) by ORH, a specialist travel analysis consultancy, shows that while the LGI arterial centre significantly exceeds the minimum population of 800,000, neither BRI nor HRI do.

<table>
<thead>
<tr>
<th>Arterial Centre</th>
<th>LTHT (LGI)</th>
<th>BTHFT (BRI)</th>
<th>CHFT (HRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Catchment Populations</td>
<td>1.2 million</td>
<td>630,000</td>
<td>498,000</td>
</tr>
</tbody>
</table>
b. Consultant Workforce.
The table below shows the current vascular consultant workforce in West Yorkshire:

<table>
<thead>
<tr>
<th></th>
<th>Minimum Requirement</th>
<th>LTHT (LGI) (including MYHT)</th>
<th>BTHFT (BRI) (including ANHSFT)</th>
<th>CHFT (HRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vascular Surgeons</td>
<td>6</td>
<td>Funded 15</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>In Post</td>
<td>15</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Vascular Interventional Radiologists</td>
<td>6</td>
<td>Funded 11</td>
<td>3.5</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>In Post</td>
<td>11</td>
<td>2.5</td>
<td>1 (1)</td>
</tr>
</tbody>
</table>

Note (1) The CHFT interventional radiology services is supported by locum consultants and consultants from LTHT.

The vascular surgeon and interventional radiologist workforces in BRI and HRI do not meet the minimum requirement. Independently they are unable to maintain an adequate level of on call cover and so, for a number of years, the two arterial centres have worked together to share the out of hours on call rota.

Each arterial centre covers the out of hours on call for the west of West Yorkshire for alternate weeks, so that, at any one time, there is only one arterial centre able to accept emergency vascular patients out of hours. So every other week, emergency vascular patients from the CHFT catchment area are taken to BRI out of hours; and vice versa the other week. This arrangement is sub-optimal and no longer considered an acceptable long term solution.

Recruiting vascular consultants is a challenge nationally: there is insufficient medical expertise coming through the training programmes and demand for vascular care is rising. Recruitment of vascular interventional radiologists is particularly challenging with a large number of vacancies nationally.

There is significant risk to the sustainability of vascular interventional radiology in the west of West Yorkshire, particularly at CHFT. Large, well-resourced services which can offer opportunities for sub-specialisation, research, education etc are most able to attract, retain and, most importantly, train consultants.

c. Procedure Numbers.

i. AAA Procedures.
While LTHT exceeds the minimum number of 60 AAA procedures per arterial centre, neither BTHFT nor CHFT do. Combining their activity would exceed the minimum.
ii. **CEA Procedures.**

In 2017, none of the arterial centres met the minimum number of 50 CEA procedures per centre, although all three were close. Combining the CHFT and BTHFT activity would significantly exceed the minimum.

Therefore, while the LTHT arterial centre is sustainable and able to deliver specialist vascular services, neither the BTHFT nor CHFT services are independently sustainable or compliant.

5. **Options Appraisal for the Future Service**

The appraisal of future options has involved input from both the Yorkshire and Humber Clinical Senate and West Yorkshire Association of Acute Trusts (WYAAT):

a. **Yorkshire & The Humber Clinical Senate Report.**

In 2016, recognising the challenges in specialist vascular services across Yorkshire and The Humber, including in West Yorkshire, NHS England commissioned the Yorkshire & Humber Clinical Senate (a body providing free, fully independent and impartial clinical advice on any proposals for service change that have significant implications for patients and the public) to review vascular services.

The Senate published its report in January 2017 (the full report is at Appendix 1 and is available on the Senate website). For West Yorkshire, the report recommended the following:

- Due to population numbers and workforce concerns there should only be two arterial centres in West Yorkshire (WY),
- One centre should be at Leeds General Infirmary (LGI) co-located with the Major Trauma Centre (MTC)
- One should be at either Bradford Teaching Hospitals NHS Foundation Trust or Calderdale and Huddersfield NHS Foundation Trust.
- Co-location of vascular and renal services should be an important consideration in the decision about the arterial centre location.

NHS England accepted the report and undertook to implement its recommendations to ensure that the services are sustainable into the future and compliant with the national service specification.

b. **WYAAT Options Appraisal.**

Following the Senate Report, WYAAT agreed with NHS England that it would undertake an options appraisal to make a recommendation on its preferred option for the location of the other centre, either CHFT or BTHFT. To determine its recommendation, WYAAT established a Programme Board and Clinical Working Group (CWG), and agreed a process and differentiation criteria.
The options considered were:

(i) Retain three arterial centres in West Yorkshire. This was not supported by the Senate report and was not considered feasible given the workforce concerns associated with BTHFT and CHFT so was discounted.

(ii) Preferred option of BTHFT as the other arterial centre in West Yorkshire.

(iii) Preferred option of CHFT as the other arterial centre in West Yorkshire.

The WYAAT Committee in Common (CIC, the Chairs and Chief Executives of all WYAAT trusts) considered the Options Appraisal on 24 April 2018. The analysis indicated that on most of the differentiation criteria, including financial, implementation timescale and travel and access, the differences between BTHFT and CHFT were not material. Only on clinical interdependencies was there a clear differentiation between the two options. Further information on the analysis of travel and access, and clinical interdependencies is provided below.

c. Travel and Access.

The Options Appraisal considered emergency ambulance and private car travel. Yorkshire Ambulance Service assessed the impact of the options on travel by emergency ambulance and WYAAT commissioned a specialist travel analysis consultancy, ORH, for private car travel.

Analysis of public transport travel was considered but ORH advised that it is very hard to produce useful analysis to inform recommendations for three reasons:

- It is very difficult to obtain complete and accurate data. There is no single database of public transport information in West Yorkshire. Data would have to be obtained from each public transport company providing services in the relevant area.

- Analysis of public transport journey times can quickly go out of date. Any change to the services or timetable can significantly affect the results (e.g. by making a previously possible connection impossible)

- Analysis of public transport journey times is very sensitive to the assumed time the journey is being made because services are not the same throughout the day. As with timetable changes, if the choice of start or finish times means a connection is just made or just missed a small change can make a big difference to the modelled journey time.

The impact of public transport journeys will be investigated through the public consultation process.
Yorkshire Ambulance Service considered the impact of closing either BRI or HRI as an arterial centre on emergency ambulance travel times and on their resource requirements to maintain performance and provide increased inter-hospital transfers. Due to the alternating system of weeks on-call and analysis of the number of inter-hospital transfers provided for vascular patients, they assessed there would be minimal impact on ambulance travel times or their resource requirements and so no material difference in the choice between the options.

For routine patient travel ORH considered the impact of the options on the overall population and a number of population groups identified by the vascular clinicians as at higher risk of vascular conditions. The key results of their analysis were:

- Closing the arterial centre at BRI produces a drop of 53,000 people within 45 minutes of an arterial centre in WY. Closing the centre at CRH results in 32,000 fewer people being within 45 minutes of an arterial centre in WY.
- The maximum expected journey time to an arterial centre increases from 58 minutes to 80 minutes when the centre at BRI is closed. There is no change in the maximum expected journey time when the centre at CRH closes.
- Closing the centre at BRI produces greater reductions in the population within 30, 45 and 60 minutes compared to when the centre at CRH is closed.
- For all the identified at-risk groups, the impact (both in terms of average travel time and in terms of population within 30 and 45 minutes of the closest arterial centre) is greater when BRI is closed than when CRH is closed.

The WYAAT Committee in Common concluded that although there were differences in travel times for the options, the differences were not material and so did not differentiate between the options.

d. **Clinical Interdependencies.**

The key differentiating factor was the interdependency between vascular and renal (kidney) services. There are close links between these services, especially for more complex inpatients, and the Yorkshire & The Humber Clinical Senate had highlighted that, ideally, they should be kept together.

BTHFT provides one of two inpatient renal units for West Yorkshire at BRI (the other is provided by LTHT), co-located with the BRI arterial centre, whereas CHFT does not provide an inpatient renal unit. Therefore option (ii), the preferred option of BTHFT as the other arterial centre in West Yorkshire, maintains co-location of vascular and renal services, while option (iii), the preferred option of CHFT as the other arterial centre in West Yorkshire, would split them with renal services provided by BTHFT at BRI and vascular services by CHFT.
e. **WYAAT Committee in Common Recommendation.**

   Based on the analysis in the options appraisal, the Committee in Common unanimously agreed that WYAAT’s recommendation to NHS England should be that its preferred option is (ii) BTHFT as the other arterial centre in West Yorkshire. Non-arterial vascular services, such as day case procedures, outpatients and diagnostics would continue to be provided at CHFT, with only complex, inpatient care moving to BRI.

   The WYAAT Committee in Common also agreed that all vascular services in West Yorkshire should be delivered as a single service across the whole of West Yorkshire. A single service will bring together the expertise and resources from all five trusts. The opportunities for sub-specialisation, research and education, to work differently and experience a wider range of cases, will improve quality for patients, increase efficiency and make West Yorkshire a more attractive place to work.

6. **Impact of the preferred option for the future service**

   The following describes the impact of delivering the preferred option on the services provided at CHFT, number of patients affected, and workforce sustainability:

   a. **Change in Services Provided at CHFT.**

   NHS England and WYAAT are committed to retaining services at CHFT and ensuring that future health care provision is in line with the needs of the resident population. The table below provides a breakdown of the different types of vascular services that are currently provided at hospitals in West Yorkshire. The table shows that the proposed reconfiguration of services would only impact those Huddersfield Royal Infirmary patients who require an emergency or planned procedure with an overnight stay in hospital.

<table>
<thead>
<tr>
<th>Vascular services offered in West Yorkshire</th>
<th>Airedale General Hospital</th>
<th>Bradford Royal Infirmary</th>
<th>Huddersfield Royal Infirmary</th>
<th>Leeds General Hospital</th>
<th>Pinderfields General Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterial Centre carries out Emergency surgery/ interventional radiology</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Arterial Centre carries out Elective inpatient surgery</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Non arterial centre carries out Elective day case surgery/ interventional radiology</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Diagnostic procedures</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Outpatients</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

   **Key**

   - Highlights current vascular services that would not be provided in future proposals
The future pathway for vascular patients at CHFT, including some examples for specific conditions, is shown in Appendix 2

To expand on the table above, the following vascular services are currently provided at CHFT and, under this proposal, would continue to be provided:

- Abdominal Aortic Aneurysm Screening Programmes
- Diagnostic imaging including magnetic resonance imaging (MRI), computed tomography (CT), ultrasound and duplex angiography (an type of X-Ray to check blood vessels using dye injected into the blood)
- Therapeutic angiography and angioplasty (in selected low risk cases). Angioplasty is a procedure to unblock blood vessels.
- Day case surgery and interventional radiology such as: filter implantation; minor surgery for foot ulcers and diabetic foot; wound care; varicose vein surgery; non-complex vascular access surgery (for example for patients needing kidney dialysis); and central venous access line insertion and removal.
- Outpatient clinics

By providing elective day case surgery and outpatient clinics in the non-arterial centres, there will be vascular surgery and interventional radiology cover on site to support consultations and opinions on in-patients within other specialties. This will provide ‘admission avoidance clinic’ slots to reduce the number of patients transferred for an urgent, but not emergency, opinion. This cover will also ensure the service can respond to rare but significant events such as vessel injuries by other specialties in theatres, or vascular emergencies self-presenting to an emergency department.

b. Number of Patients Affected.

Based on recent patient data, it is estimated this proposed service change will affect approximately 800 patients per year (15 patients on average per week) who need complex, inpatient vascular care such as procedures to repair aortic aneurysms, improve lower limb circulation, major amputations, or to reduce the risk of strokes.

The majority of these patients, who currently have their specialised vascular surgery at CHFT (HRI), would in future, under this proposal, have their surgery at BRI. 800 patients is approximately 7% of all vascular related interventions and procedures in WY; the other 93% will continue to be delivered in the current locations, including CHFT, and will be unaffected by the reconfiguration.
The table below provides further detail on activity volumes as they currently are and how they are expected to be in the future. It highlights the split between complex (arterial) and non-complex (non-arterial) activity, and between emergency and planned (elective) care under the recommended proposal. The grey highlighted cells show how the activity changes between the current and recommended future proposal.

<table>
<thead>
<tr>
<th></th>
<th>Current Activity</th>
<th>Future Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Arterial</td>
<td>Non-arterial</td>
</tr>
<tr>
<td></td>
<td>Emergency</td>
<td>Elective</td>
</tr>
<tr>
<td>BTHT</td>
<td>521</td>
<td>282</td>
</tr>
<tr>
<td>CHFT</td>
<td>386</td>
<td>370</td>
</tr>
<tr>
<td>ANHSFT</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LTHT</td>
<td>1486</td>
<td>970</td>
</tr>
<tr>
<td>MYHT</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>2,393</td>
<td>1,622</td>
</tr>
</tbody>
</table>

NB. HDFT is not shown in the table as Harrogate patients are treated at York District Hospital as the arterial centre for North Yorkshire and remain unaffected by this proposal.

c. **Population Needs.**
   The Equality Impact Assessment has indicated that this proposal does not disadvantage any groups resident in West Yorkshire.

d. **Workforce Sustainability.**
   Recruiting personnel with specialist vascular skill is a challenge nationally, there is insufficient medical expertise coming through the training programmes and demand for vascular care is rising. Recruitment of vascular interventional radiologists is particularly challenging with anecdotally there being over 200 vacancies nationally, making it important that services are well resourced and offer opportunities for sub-specialisation, research, education to attract and retain consultants.

Creating a more flexible and supported vascular workforce through a single West Yorkshire Vascular Service across all five trusts that currently provide vascular care in West Yorkshire will futureproof vascular services. This will ensure that they are better equipped and able to respond to the rising demands whilst meeting the needs of a population with a full range of vascular conditions.

Understanding the national shortage of personnel West Yorkshire vascular services have to be attractive as an employer, it is felt that moving to a single vascular service to cover the whole of West Yorkshire, with these two arterial centres, will help with recruitment and retention for the following reasons:

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1 Activity numbers have been provided by WYAAT
• It is reported through direct feedback that candidates are hesitant to apply for an interventional radiology position at BTHT or CHFT due to the uncertainty of where the second centre will be in the future. Candidates are hesitant about moving and settling family in a home and school without being fully informed about the situation. A definitive decision should allow certainty going forward.

• Due to a larger range of complex procedures and other opportunities (e.g. research) it appears candidates gravitate to the larger teaching hospitals. That is also due to, generally, a larger establishment of consultants and therefore, potentially less frequent on call. The single service should allow appointment of candidates to ‘the service’ where they can access the complex work and other opportunities, such as research, but then opposed to doing high intensity complex work persistently, they can work in one of the non-arterial centres engaged in the more routine planned work. This should both satisfy career aspirations and provide some work-life balance.

• From a patient perspective and sustainability of services, moving to a more fluid working model between sites should ensure a more stable service. For example, if the consultant who routinely covers Airedale General Hospital is on holiday for 2 weeks a consultant from another site can continue the clinics and ward cover in their absence. Therefore, providing continuity in the service.

7. Engagement and Consultation

In line with the second review from the Clinical Senate, NHS England commissioned the School of Health and Related Research (ScHARR) to organise patient discussion group meetings at two locations in WY (Leeds and Huddersfield) to inform initial work on its vascular review in 2016.

Overall these events attracted participation from 41 vascular patients across Yorkshire and the Humber, with experience of a variety of vascular procedures. NHS England is now planning further engagement activities to build on this previous work and provide an opportunity to discuss the proposed changes in more detail and seek the views of patient groups.

Further events are expected to be held in the early part of 2019 in those locations affected by the proposed change.

Throughout this programme of work WYAAT has engaged with staff impacted and has harnessed the input of vascular clinicians via a clinical working group. WYAAT has appointed a clinical director to lead the WY vascular service and implementation of the proposed change. This individual will be instrumental in securing clinical input ahead of engagement activities. In addition the CCG Accountable Officers have received updates via the West Yorkshire Joint Committee of CCGs.
The draft timeline below shows high level communication and engagement activities proposed going forwards from January 2019. This will include focussed work in Bradford and Calderdale, as well as work across the broader Yorkshire and Humber population. This focuses on three phases of engagement and consultation activity:

- **Phase one** running to mid-February 2019 involving briefing health system partners, clinical leaders, health scrutiny leads, frontline clinical staff and other stakeholders on the recommended clinical model and seeking input to planned consultation and engagement activity.

- **Phase two** running from mid-February to late March 2019 when as part of a formal consultation there is a patient focussed approach to engagement across West Yorkshire to explain the recommended clinical model and seek wider views around experiences of vascular care to support and inform future improvements. The approach will involve a targeted communication to active vascular patients and those that have received vascular care in West Yorkshire within the last three years, with an invitation to return a survey or attend a ‘listening event’ to provide feedback and views ahead of implementing changes. Please note any consultation activities will be paused in the period prior to local government elections on Thursday 2 May 2019.

- **Phase three** running from May 2019 including continued formal consultation and community-focussed engagement in Bradford and Calderdale (delivered in partnership with community and patient advocacy leads) that provides information on the recommended clinical model to the wider population, including protected characteristic groups (hard to reach groups), with an opportunity to attend a ‘listening event’ to provide feedback and views ahead of implementing changes.

In view of the recommendations from the Yorkshire and Humber Clinical Senate Report and the West Yorkshire Association of Acute Trusts identifying that a preferred option is BTHFT as the other arterial centre in West Yorkshire, the purpose of the planned consultation and engagement activity will focus on the following areas:

i. Seeking an understanding from current and former vascular service users about how they prioritise or rank what is most important to them when accessing vascular services

ii. Understanding how current and former vascular patients travelled to access their vascular appointments, and any considerations that we should take into account about how people travel to access specialist vascular care Clarifying that patients and the public understand the proposed change and the need for the change

iii. Ensuring an opportunity for patients and the public to raise if there is anything else that should be taken into account at this stage

iv. Identifying if there is further interest from any survey respondents or listening event attendees to take part in further participation activity (i.e. a patient working group to work with clinical teams overseeing any transition phase)
Work will take place to analyse any engagement and consultation feedback to identify any key themes and trends, and this information will be used to inform the final clinical model. A further report will be presented to the J HOSC after closure of the consultation.

The table below provides an outline of timescales for the proposed engagement and consultation activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>July onwards</th>
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<tbody>
<tr>
<td>Communications and engagement documentation working group establishment</td>
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<td>Clinically-led engagement with all frontline staff</td>
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<td>Meetings with JOSC Chairs as required</td>
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<tr>
<td>Formal attendance at JOSC meetings as required</td>
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<td>Briefing to MPs</td>
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<td>Briefing to Healthwatch leads</td>
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<tr>
<td>Formal attendance at OSC meetings as required</td>
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<tr>
<td>Consultation patient mail out and invite to vascular ‘listening events’</td>
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<td>Consultation patient experience survey offered to all vascular service patients</td>
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<td>Consultation vascular care ‘listening events’ in communities</td>
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<td>Decision by NHSE to be determined</td>
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<td>Implementation phase to be determined</td>
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</tbody>
</table>
14. References and supporting information

   https://www.clinicalservicesjournal.com/story/7048/action-urged-on-vascular-surgery

2. Life style, Vascular Society of Great Britain and Ireland


5. Specialised Vascular Services (adults) NHS England service specification no 170004/S

6. Vascular Society of Great Britain and Ireland,
   https://www.vascularsociety.org.uk/

7. Vascular Surgery, Getting It Right First Time report 2018 (GIRFT)
   http://gettingitrightfirsttime.co.uk/vascular-surgery-report/

8. NHS England Schedule 2, specialised Vascular Services (adults)


11. Vascular Surgery Quality Improvement Programme,
    https://www.vsqip.org.uk/surgeon-outcomes/

APPENDICES:
   1. Yorkshire and Humber Clinical Senate Report on Vascular Services (enclosed as a separate document)
   2. West Yorkshire Vascular Service Pathway (below)
APPENDIX 1 – SENATE REPORT

Link here:

and

Attached as a separate PDF document
## APPENDIX 2 – WEST YORKSHIRE VASCULAR SERVICE PATHWAY

### Key

<table>
<thead>
<tr>
<th>Current pathway</th>
<th>Future pathway</th>
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</thead>
<tbody>
<tr>
<td>Non arterial centres, Airedale Hospital Trust &amp; Mid Yorkshire Hospitals</td>
<td>Non arterial centres, Airedale Hospital Trust, Mid Yorkshire Hospitals &amp; <strong>Calderdale &amp; Huddersfield FT</strong>,</td>
</tr>
<tr>
<td>Arterial Centres, Leeds Teaching Hospitals Trust, Bradford Teaching FT &amp; <strong>Calderdale &amp; Huddersfield FT</strong></td>
<td>Arterial Centres, Leeds Teaching Hospitals Trust, Bradford Teaching FT</td>
</tr>
</tbody>
</table>

### Referral to vascular services for diagnostics & assessment e.g. scans etc

### Outpatient management of patient with vascular conditions e.g. peripheral disease, action plan following diagnostics

### Emergency or elective admission for in patient spell at the arterial centre, procedures include:

- Major limb amputation
- Abdominal Aortic Aneurysm surgery or endovascular intervention
- Lower limb bypass surgery
- Carotid and upper limb surgery
- Interventional Radiology treatment for deep vein thrombosis,
- Emergency surgery for Acute Limb Ischaemia
- Complex vascular access surgery for renal patients

Procedures carried out by surgeon or vascular interventional radiologists

### Day case activity/minor surgery

Procedures include:

- Minor foot surgery
- Varicose veins
- Non- complex vascular access for renal patients

Procedures carried out by surgeon or vascular interventional radiologist

### Repatriation to the local DGH or community services for ongoing care or rehabilitation if required

### Follow up at the local DGH
Example Pathways

### Example 1

A patient from Halifax who develops very limiting pain in their leg (Intermittent Claudication) due to a blockage in the blood vessel (Peripheral Vascular Disease).

GP would refer to local non-arterial site through normal process  
Patient seen in clinic at Calderdale Royal Hospital (CRH, Halifax)  
Patient undergoes scan of vessels at CRH  
Follow up clinic at CRH and decision for bypass surgery  
Pre-assessment clinic to work up for surgery at CRH  
Admission on the day of surgery to Bradford Royal Infirmary (BRI)  
Post-operative recovery at BRI  
If suitable after a few days the patient would be discharged back home directly from BRI  
If the patient needed extended rehabilitation they would be repatriated to CRH  
Post discharge clinic follow up at CRH

### Example 2

A patient from Huddersfield or Halifax who is admitted to Calderdale Royal Hospital (CRH) under the Diabetic team having been referred for a toe infection.

The patient is seen at CRH by a vascular surgeon, following a clinic, and assessed there rather than being transferred to Bradford Royal Infirmary.

If a decision is made that the toe needs amputating the patient remains under the Diabetic team at CRH.

Toe amputation arranged and performed on a day-surgery list at CRH and the patient is returned to the diabetic ward.

Post-operative review on the diabetic ward by the vascular surgeons/specialist nurses/podiatry team.

Post discharge the patient would be followed up in the clinic most local to the patient