National Specialised Services Specification Compliance Programme - Review of Vascular Services

Why are vascular services being reviewed by NHS England?

Specialised vascular services can be briefly summarised as preventing death from aortic aneurysm, preventing stroke from carotid artery disease and preventing lower limb amputation from peripheral arterial disease and diabetes. In 2007 over 65,000 people in the UK had surgery for a problem relating to vascular disease (VSGBI, 2009). The prevalence of vascular disease increases with age meaning that demand for vascular services is likely to increase over time. In addition, there are currently an estimated 3 million people with diabetes in England and this prevalence is increasing; patients with diabetes and vascular disease have a worse outcome, as evidenced by the increasing rate of lower limb amputation in this patient group.

The outcomes from vascular surgery in the United Kingdom have not compared well internationally, with the UK until recently having the highest mortality rates in Western Europe for abdominal aortic aneurysm repair (VASCUNET, 2008). Hence, it is a national priority for the NHS to ensure vascular services are configured in ways that reflect best practice to ensure their safety and quality both now and for years to come.

In 2012 the Vascular Society of Great Britain and Ireland (VSGBI) published a series of recommendations describing how vascular services should be organised to deliver the best outcomes for patients (Provision of Vascular Services, 2012). VSGBI quality improvement frameworks (QIFs) are also in place for both abdominal aortic aneurysm (AAA) repair and lower limb amputation. The recently introduced NHS AAA Screening Programme has made adopting the AAA QIF mandatory for providers treating men referred from the programme.

In light of these recommendations NHS England, as the commissioners of vascular services, published a national specification for the provision of vascular services in July 2013. This specification sets out both the essential components of a specialist vascular service and the clinical outcomes that the service should achieve. A clinical reference group, chaired by Professor Matt Thompson, has developed the service specifications and reporting outcomes of all vascular surgical procedures to the new National Vascular Registry will be mandatory.

Since the publication of the service specification NHS England have been reviewing services across England to determine the work needed to ensure local vascular providers comply with the best practices outlined in the service specification. The key elements of which are that providers of vascular services should:

- Serve a minimum population of at least 800,000 people to ensure an appropriate volume of procedures
- Ensure that highly experienced staff are treating sufficient numbers of patients to maintain competency
• Have 24/7 on site vascular surgery and interventional radiology on-call rotas that are staffed by a minimum of 6 vascular surgeons and 6 interventional radiologists

• Provide access to cutting edge technology including a hybrid operating theatre for endovascular (minimally invasive) aortic procedures

• Provide a dedicated vascular ward and nursing staff

• Have a specialist team to manage patients with vascular disease that includes vascular surgeons, interventional radiologists, specialist nurses, vascular scientists, diabetes specialists, stroke physicians, cardiac surgeons, orthopaedic surgeons, and emergency medicine amongst other specialities to provide a comprehensive multi-disciplinary service.

Central to national recommendations is the requirement for arterial surgery to be delivered out of fewer, higher volume specialist arterial surgical centres to improve clinical outcomes (in particular mortality rate) and deliver a range of other benefits. Due to the way services are currently delivered at the majority of hospitals and the limited number of specialist doctors that are available it is not currently possible for patients to always be treated by a vascular specialist, especially out of normal working hours.

NHS England in the South West is currently each network in turn. The information below relates only to the North Devon and Somerset Vascular network. Table 1 shows that none of the individual Hospital Trusts that currently provide vascular services in the Somerset and North Devon Network can meet the service specification in full (i.e. a catchment population of 800,000 and the 6 vascular surgeons and 6 interventional radiologists it would take to safely provide the 24 Hour, seven day a week (24/7) service needed to meet expected increases in demand).

Table 1: Current service provision in the Somerset and North Devon Network

<table>
<thead>
<tr>
<th>Provider</th>
<th>24/7 MDT</th>
<th>6 vascular surgeons</th>
<th>6 interventional radiologists</th>
<th>AAA Screening</th>
<th>Outpatient Assessment</th>
<th>Diagnostic imaging (duplex, MRA and CTA)</th>
<th>Inpatient non-arterial vascular services</th>
<th>Elective and emergency arterial surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Devon District Hospital (Northern Devon Healthcare Trust)</td>
<td>No</td>
<td>2</td>
<td>1*</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
What happens at the moment?

There are two care pathways for vascular patients: elective and emergency.

All elective and emergency Abdominal Aortic Aneurysm surgery is currently centralised in Taunton. To provide a 24/7 emergency vascular service, the North Devon consultants are part of the network vascular on call rota in Taunton. In compliance with current regulations, all vascular surgeons and interventional radiologists submit audit data to the National Vascular Registry (previously National Vascular Database).

Currently, people from Somerset receive all of their vascular interventions at Musgrove Park Hospital in Taunton and choose from Yeovil District Hospital and community hospitals in Somerset to receive their outpatient vascular care. Most patients from Somerset, North Devon and a few patients from North East Cornwall have arterial interventions and their surgery at Northern Devon Healthcare Trust (NDHT) under the care of one of the two Vascular Surgeons at NDHT. An exception to this is patients from North Devon who require either planned surgery for an Abdominal Aortic Aneurysm or those requiring emergency aortic or other emergency arterial surgery when this currently cannot be provided at North Devon. Whilst elective aortic patients can have their outpatient appointments at NDHT or choose to have them at Musgrove Park, all aortic aneurysm surgery is performed at Musgrove Park Hospital in Taunton.

With this exception, North Devon patients may have their outpatient appointment at either North Devon District Hospital or Bideford Hospital. All vascular diagnostic procedures, day case and inpatient surgery are performed at North Devon District Hospital. Patients (estimated around 19 adults per year) who require a longer period of rehabilitation in hospital following lower limb amputation may also be cared for in an appropriate bed in North Devon.

The Table below shows how many people in total received at least one of the relevant procedures at NDHT for the last 3 (+) years. In other words, we expect approximately 180 people a year from Devon who would have previously travelled to

<table>
<thead>
<tr>
<th>Musgrove Park, Taunton</th>
<th>Yes</th>
<th>4 elective, 6 on call including N Devon surgeons</th>
<th>5</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yeovil Hospital</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

* The IR consultant at NDHT provides a 9-5 Monday to Friday service only.
NDHT for their vascular surgery to receive their surgery in Taunton at some point in the future.

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>NEW Devon CCG</th>
<th>KERNOW CCG</th>
<th>Somerset CCG</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011/12</td>
<td>151</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>2012/13</td>
<td>178</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>2013/14</td>
<td>180</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>509</strong></td>
<td><strong>35</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

*What will change?*

To address each individual Trust's inability to meet the service specification on its own, and in compliance with the VSGBIs 2012 recommendations, the providers across the South West have developed vascular networks based on the recommended population size and in line with patient flows in readiness to provide a 'hub and spoke' service model where more complex care is delivered in a specialist arterial surgical centre (the 'hub') whilst other aspects of care remain in hospitals closer to where patients live (the 'spokes').

The service specification requires an arterial centre for the network that can provide a comprehensive emergency vascular service (in the North Devon-Somerset Network this would be Musgrove Park Hospital in Taunton), assist vascular specialists and nursing staff in maintaining and developing their competency, and enable the most efficient use of specialist equipment, staff and facilities. The 'spoke' hospital (in this instance, NDHT) will deliver outpatient clinics, diagnostics (including vascular studies) and in some cases day case vascular surgery and interventional radiology. This model both maintains the local hospital as the 'front door' of the vascular service for most patients and ensures that other local services such as non-vascular interventional radiology, transient ischaemic attack (TIA or 'mini stroke')/stroke rehabilitation services and diabetic foot services can be supported closer to where patients live.

After reviewing the evidence and the Vascular Society's recommendations, the Clinical Reference Group of vascular experts, commissioners, and patients that developed the service specification recommended all elective and emergency inpatient arterial surgery should be performed in a surgical centre to avoid 'occasional practice' and secure the best clinical outcomes overall including: surgery to treat emergency and elective abdominal aortic aneurysms (to treat enlargement of the aorta); carotid endarterectomy (to prevent strokes); lower limb arterial bypass (to
improve circulation and prevent amputation); major lower limb amputation and other
inpatient arterial procedures.

Table 3 below summarises what Somerset and North Devon Vascular Network is
proposing to deliver to bring services into line with the new national service
specification. The important thing to note at this stage is that, in order to provide
vascular patients from North Devon with centre level vascular surgery 24/7, 365 days
of the year in a way that is safe and able to keep up with expected increases in
demand, all in-patient vascular procedures that people would currently receive at
North Devon District Hospital Trust (NDHT) will need to be conducted at the arterial
centre in Musgrove Park (where some patients already go to for emergency and
elective aortic aneurysm surgery, which is not currently available at NDHT). All other
aspects of vascular care such as day case surgery and outpatient care will remain at
NDHT as currently.

<table>
<thead>
<tr>
<th>Provider</th>
<th>Emergency abdomenal aortic aneurysm</th>
<th>Emergency and Elective abdomenal aortic aneurysm</th>
<th>Inpatient arterial and vascular surgery excluding limb amputation</th>
<th>Major amputation</th>
<th>Vascular day case surgery</th>
<th>Outpatient Assessment</th>
<th>Diagnostic imaging (duplex, MRA and CTA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Devon District Hospital, Northern</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Musgrove Park Taunton</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Yeovil Hospital</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The ‘front door’ of the vascular service will remain the patient’s local hospital with
Northern Devon Healthcare Trust continuing to provide outpatient clinics, diagnostics
imaging, day case surgery, specialist vascular review of inpatients in North Devon
which complies with the VSGBI 2014 Provision of vascular services at the Spoke
hospital.

As patients undergoing lower limb amputation are usually in hospital for weeks rather
than days, and likely to require a period of rehabilitation, it is recognised that these
patients may wish to receive their on-going care and rehabilitation closer to home
than in Taunton. Consequently, they would be transferred and receive on-going care
and rehabilitation in the same manner as the other non-vascular patients who required long term rehabilitation within North Devon.

However, robust pathways need to be agreed to enable effective transfer of patients to a hospital closer to home following surgery for rehabilitation and these will need to be informed by local people’s views.

What you can do to help

Whilst we cannot change the content of the service specification because it has already been the subject of a national programme of public and patient engagement, the NHS England Specialised Commissioning Team for the South West is working with both Northern, Eastern, and Western Devon and Somerset Clinical Commissioning Groups (CCGs) and the providers in this network to plan a programme of local public and patient engagement to enable us to fully assess the local impact of the proposed working models and gain patient insights that can inform future service delivery. The key areas people will be asked for their views on include identifying what patients have valued most about their treatment thus far and their ideas for how their care could be further improved.

Similarly, moving any part of a service may understandably raise concerns about the impact that travel times will have on patient outcomes and experience. In terms of patients attitudes towards travel for specialist services, an extensive study by Holt et al reported that 237 of the 258 patients questioned (92 per cent) stated a willingness to travel for at least one hour beyond their nearest hospital (Holt et al. 2009). Patients also had a stronger willingness to travel to access services with lower peri-operative mortality, stroke and amputation rates, routine availability of EVAR and an experienced surgical team as opposed to other considerations such as length of stay, seeing the same doctor every time, waiting lists and car parking. The authors of this paper strongly endorsed the idea of centralising vascular surgery to regional centres to achieve the desired mortality outcomes and supported these conclusions with the above preference data.

Nevertheless, we do not know if these views are shared by people in the South West and there may be other things we haven’t considered. Therefore, we would be grateful if you would complete the questionnaire via this website or contact Dr Lou Farbus at lfarbus@nhs.net

Glossary

Abdominal aortic aneurysm repair
Abdominal aortic aneurysm (AAA) repair is a procedure used to treat an aneurysm
(abnormal enlargement) of the abdominal aorta. Repair of an abdominal aortic aneurysm may be performed surgically through an open incision or in a minimally-invasive procedure called endovascular aneurysm repair (EVAR).

**Angioplasty**

*Angioplasty* is the technique of mechanically widening narrowed or obstructed arteries.

**Arterial surgery**

This includes a range of procedures to prevent death from aortic aneurysm, prevent stroke from carotid artery disease, and prevent lower limb amputation from peripheral arterial disease and diabetes.

**Carotid endarterectomy**

*A carotid endarterectomy* is a surgical procedure to unblock a carotid artery (blood vessels that supply the head and neck).

**CT**

A CT scan is a specialised X-ray test. It can give quite clear pictures of the inside of your body. In particular, it can give good pictures of arteries, which do not show on ordinary X-ray pictures.

**Interventional radiology**

Interventional Radiology is a medical subspecialty of radiology utilizing minimally-invasive image-guided procedures to diagnose and treat diseases in nearly every organ system. The concept behind interventional radiology is to diagnose and treat patients using the least invasive techniques currently available in order to minimize risk to the patient and improve health outcomes. These procedures have less risk, less pain and less recovery time compared to open surgery.

**MRI**

*Magnetic resonance imaging (MRI)* is a type of scan that uses strong magnetic fields and radio waves to produce detailed images of the inside of the body.

**Peripheral arterial disease**

*Peripheral arterial disease* (PAD) is a common condition in which a build-up of fatty deposits in the arteries restricts the blood supply to leg muscles.
Public and patient engagement

‘Engagement’, ‘involvement’, ‘consultation’, ‘co-production’ and ‘participation’ are all words that can be used to describe communicating with and listening to patients, carers and members of the public. This ranges from providing information to people about NHS services and commissioning decisions to working with patients and carers at a strategic level so their experiences and insight can be used to shape NHS policy and commissioning decisions.

Service specification

A service specification is a description of what a service should include. For example the number and skills of the staff that provide the service, registration with professional bodies or the environment in which certain procedures and care are carried out (like special thermo-regulated rooms for people being treated for severe burns).

Specialised services

Specialised services generally involve complex procedures that only a few people may have the skills and experience to perform or because they use very specialised, expensive equipment that the NHS simply could not afford to put into every local hospital and/or because the people who need these services are relatively few in numbers, such as very premature babies or people with rare cancers or genetic conditions.

Vascular studies

Vascular studies are a non-invasive (the skin is not pierced) procedure used to assess the blood flow in arteries and veins. A transducer (like a microphone) sends out ultrasonic sound waves at a frequency too high to be heard. When the transducer is placed on the skin at certain locations and angles, the ultrasonic sound waves move through the skin and other body tissues to the blood vessels, where the waves echo off of the blood cells. The transducer picks up the reflected waves and sends them to an amplifier, which makes the ultrasonic sound waves audible.
Vascular surgery is a specialty of surgery in which diseases of the arteries and veins are managed by medical therapy, minimally-invasive catheter procedures, and surgical reconstruction. Vascular operations are no longer performed by general surgeons but by specialist vascular multi-disciplinary teams.