



Vascular Surgery Review for Kent and Medway

**Decision Making Process and
Decision Tree Criteria**

Vascular Surgery Review for Kent and Medway

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The NHS Commissioning Board (NHS CB) was established on 1 October 2012 as an executive non-departmental public body. Since 1 April 2013, the NHS Commissioning Board has used the name NHS England for operational purposes.

Introduction

This document is a key component of the 2015 Kent and Medway review of Vascular services and needs to be read in the context of the review process as a whole. This includes:

- The Case for Change Document
- The Communication and Engagement plan
- The Project Initiation Document
- The Process Assurance Document.

The aim of this paper is to set out the process that will be undertaken to ensure a systematic and transparent decision making process.

1 The Decision Making Process

The decision making process will be undertaken in a systematic way and will be informed by public and clinical engagement.

The process will reflect national best practice and guidance.

The decision making process will be implemented at key decision points in the process. This will include:

- Approving the Case for Change
- Agreeing the Long List of Options
- Agreeing the Short List of Options
- The preferred option(s)
- Additional information
- Provider response
- The decision making tree – Parts 1,2 & 3

2 Case for Change

The Case for Change was developed to reflect the national context, regional influences and local variables. The key focus has related to the ability to delivery the national service specification and the Vascular Society's, 'Provision of Vascular Services' (2012).

This document was approved in principle at the Programme Advisory Board (PAB) on 19th May 2015. Additional information will be added as indicated within the document.

Listening events with the public will assess their understanding of the need for change and their key issues and concerns. Learning form these events will inform

the Case for Change. We will also use this opportunity to ensure that the document is readable and understandable.

The wider clinical community for vascular services will be involved through local provider Trusts and engagement from the review programme director with workshops planned as the review process develops.

The South East Coast Clinical Senate has been invited to provide a 'critical friend' role in reviewing the Case for Change and the PAB will take into account their recommendations.

The Case for Change will be shared with the Clinical Commissioning Groups (CCGs) clinical forums, and will be presented to the NHS England – South - Specialised Commissioning Delivery Group.

3 Decision Making Process

A systematic process will be in place to enable transparency in the identification and assessment of options.

This will take place within a six stage process:

3.1 Stage 1 – The Long List

The first stage will Identify and register all possible pathway and service configurations for vascular surgery services for the population of Kent and Medway (Section 6 - Registered Options) **to be completed/agreed by the Clinical group on 16th June.**

3.2 Stage 2 – The Long List Revised to the Short List

The second stage will reduce the long list to a shorter list of options. This will be achieved by applying key criteria (as noted within the national specification and Vascular Society Guidance for the Provision of Vascular Services) to each of the long list options to identify viable models.

Development of the short list will be informed by:

- The public through public engagement feedback.
- The clinical sub group to the Board (appendix 1).
- Board members and their constituency (for example Kent and Medway CCGs, NHS England, Vascular Society, external IR representative).
- The Programme of Care Manager – Internal Medicine, NHS England - South

The short list will identify options not providers.

Decision Making Tree Part 1 Long List to Short List

1. Identification of at least the minimum population 800,000. 'A minimum population of 800,000 would be appropriate but for a world class service a larger catchment area will be required' - (National Service Specification 2013).
2. Viability of a surgical consultant rota twenty four hours a day seven days a week (24/7) with an on-call rota of no more than once in every six days (1:6).
3. Viability of an Interventional Radiologist consultant rota 24/7 and 1:6.
4. Emergency Transfer Times – Travel time to the vascular surgical centre by blue light ambulance from a spoke hospital.

Extracts from 'The Provision of Services for Patients with Vascular Disease 2012'
The Vascular Society

- 6.21 Protocols must be developed, particularly by the Accident and Emergency Department and ambulance service, to allow transfer of vascular emergencies to the adjacent vascular unit without delay. Very few hospitals are more than one hour by road from their neighbours, although there is evidence that even with travel time of more than one hour, transfer to a vascular unit improves patient outcomes. Patient survival after a ruptured aortic aneurysm is between 5-15% if they stay in a hospital with no vascular surgeon, compared with 35-65% if transferred to an adjacent vascular service. This advantage persists even with up to 4 hours of hypotension, although patients who suffer a cardiac arrest are unlikely to survive transfer.
- 6.22 Patients arriving at a non-vascular hospital with a vascular condition requiring emergency intervention should be diagnosed and referred within one hour of arrival. Services should be arranged to minimise transfer times (target less than one hour). 95% of patients should be triaged, referred and have arrived at the vascular unit within two hours of arrival at the spoke hospital. A few remote rural communities may need to agree different transfer target times, but should audit their service provision against locally agreed standards.

The short list will be formally agreed by the Programme Board. The decision making template can be seen at appendix 6.

3.3 Stage 3 – Additional Information – Review of Short List

The short list will be further reviewed using the information from the following work, to identify the preferred option(s).

Decision Making Tree Part 2 – Additional Information

1. Quality Review

The Quality review will assess key quality indicators within the trusts' wider quality dashboard.

2. Organisational future strategy for clinical services at potential hub sites
A statement from potential hub sites on their short, medium and longer term strategy for the delivery of clinical services and high level capacity and financial modelling.
3. Health Needs Assessment
A health needs impact assessment will be developed for each short list option including the impact of new housing developments in Kent and Medway.
4. Essential and Desirable Co-Dependencies
A list of essential and desirable co-dependences will be listed derived from the national service specification, the Vascular Society Provision of Services for Patients with Vascular Disease (2012) and the South East Coast Clinical Senate Review of The Clinical Co-Dependencies of Acute Hospital Services.
5. Detailed review of Travel Times
This will include, blue light, private and public transport and highlight risks.
6. Interventional radiology service
Impact and risks on vascular services and impact and risks on non-vascular services. The potential options must fully consider Interventional Radiology as a central component to the delivery of vascular services.
7. Workforce.
This will consider the workforce requirements to deliver sustainable high quality Vascular services
8. Review of the demographics and projected population growth to determine the impact on delivering a sustainable Vascular service.
This will include consideration of key risk factors and population groups.

3.4 Stage 4 – The Preferred Option

The Board will be asked to recommend the preferred option(s). NHS England Specialised Commissioning – South will be asked to endorse the Board's decision. These options will then be worked up through stages five and six.

3.5 Stage 5 – The Provider – Initial Responses

The preferred options will be described to interested hub providers. The providers will be asked to formally acknowledge their organisational commitment to provide the preferred option(s) pathway and model of care as described in the Register of Options.

Interested providers will then be formally asked to develop an outline business case to demonstrate how they would provide the service, meeting the requirement of the national service specification.

3.6 Stage 6 - Provider Business Case

The outline business case will be assessed by NHS England (South) and if deemed viable the interested providers will be asked to develop a full business case setting out how they will deliver the preferred option. The full business case will be scrutinised using the national service specification with particular emphasis on the criteria in the Decision making Tree Part 3 and the information gathered at stages 3 and 5.

Decision Making Tree Part 3 – Business Case (To be completed – work in progress)

- Volume of Core Index Procedures per Trust and per consultant.
- 24 hr access
- 24/7 consultant cover.
- 24/7 IR consultant cover.
- 7 day Specialist nursing cover.
- Co located critical care department.

Co-located Interventional Radiology.

The following recommendations made by the SE Clinical Senate will be reflected and reviewed through the decision making process and in particular in stages 3 and 6 to ensure that the key elements have been duly considered.

SE Clinical Senate Recommendations:

1. Describe in detail how the arterial centres and associated non-arterial centres within the proposed network would inter-relate, and the relevant range of clinical pathways between them. Throughout, there should be evidence of equity of access to the AC, wherever the patient lives or whichever referring hospital they come from.
2. Provide an overview of the whole pathway of care, from pre-hospital emergency care, through to rehabilitation in the community, and how the services and providers would join up and coordinate in delivering high quality outcomes
3. Define the proposed catchment population for the AC, and then model the future activity, based on demographic trends and the impact of preventative measures over the coming 10-15 years. This activity modelling should separately consider elective and urgent work, the impact of endovascular treatment developments, and non-aortic vascular surgery.
4. Demonstrate the feasibility of delivering the capacity required by the AC ((inpatient beds and operating theatre capacity in particular) in the host hospital.
5. Demonstrate how the host hospital will be able to deliver safe and effective general urgent and emergency care services, which high quality care for vascular patients is dependent upon.

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6. Proposals assuming repatriation of any patient pathways currently served by south London vascular units should be supported by credible assumptions about the deliverability of such re-direction of work.
7. Detail the full range of clinical co-dependencies (in particular the critical co-located services) required by ACs (and NACs), and how they will be provided by the host hospital (with reference to the national service specification and VSGBI guidance 2012 and 2014, together with the SECS co-dependencies report 2014 (1,4,6)).
8. Explicitly describe the workforce, the skills required and the challenges across the whole pathway, and describe the workforce recruitment, training and education programme plans across the multidisciplinary team to address these challenges. Particular detail on the vascular consultant workforce and the vascular nurse specialist workforce should be provided, taking account of the requirement for care delivery at NACs as well as the ACs.
9. Demonstrate an effective and sustainable interventional radiology service for the AC and its supporting NACs. There needs to be clear plans not only for how a 24/7 IR service is provided at the AC, but also how at least a five day IR service is provided in NACs, how broader non-vascular IR services are provided for all acute hospitals within the network, and how the required radiology rotas in those hospitals are maintained.
10. Describe specifically the aspirations for a high quality service, for the vascular network in general and the AC in particular, and the metrics that would be used to demonstrate achievement of the quality service.
11. Describe how the full range or requirements of the national service specification, and the VSGBI 2012 and 2014 (4,6) recommendations, would be met, and if not, provide a justification, or a timescale by when they would be met.
12. Describe how urgent and elective carotid surgery would be provided for patients with TIAs and strokes for the network.
13. Describe how the renal units serving Kent and Medway would be supported in delivering a high quality vascular access service for dialysis patients. This should include the elective and emergency aspects of renal vascular access care, and involve close partnership with the IR service.
14. Present clear travel times within the proposed network that the AC would be centred within. This should be both from home locations across the catchment area, and from the networked NACs. Demonstrate how these travel times would be within safe limits for emergency transfer to the AC to receive the necessary care.
15. Describe the ambition for delivering teaching, specialist training and clinical research at the AC, and the commitment to support staff in providing these activities (through job planning and other enablers), and in partnership where appropriate with universities, medical schools, the CLRN and KSS's AHSN. .

4 Registered Options

4.1 Option 1 – Two Kent and Medway Hubs with Current London Pathway

No Change to the current configuration and patient flows. Kent and Medway surgical services provided at East Kent University Hospitals NHS FT (EKUHFT) and Medway Foundation Trust (MFT) and Guys and St Thomas' Hospital London (GSTH).

4.2 Option 2 – No Kent and Medway Hubs

No arterial surgical centre in Kent and Medway. All arterial surgery takes place in London. All Kent and Medway providers are network spokes.

4.3 Option 3 – Two Kent and Medway Hubs without London

The two vascular surgery centres in Kent and Medway become hub centres and no patients are referred to GSTH, except for highly specialised procedures.

4.4 Option 4 – One Kent and Medway Hub, no London Pathway

One vascular surgery centre in Kent and Medway becomes the hub centre and no patients are referred to GSTH, except for highly specialised procedures.

4.5 Option 5 – One Kent and Medway Hub with London Pathway

One vascular surgery centre in Kent and Medway becomes the hub centre. Patients continue to be referred to GSTH.

4.6 Option 6 - Networked Kent and Medway Hubs, no London Pathway

The two current vascular surgery centres provided all arterial surgery for Kent and Medway with no referral to GSTH, except for highly specialised procedures. The two surgical and IR teams network to provide Hub services including surgical cover at both sites 24/7.

4.7 Option 7 - Networked Kent and Medway Hubs with London Pathway

The two current vascular surgery centres provided arterial surgery for Kent and Medway with the current referral pathway to GSTH remaining. The two surgical and IR teams network to provide Hub services including surgical cover at both sites 24/7.

5 Appendices

5.1 Appendix 1 – Member of the Clinical Sub – Group

| Name | Position | Organisation |
|-------------------|--|------------------|
| Jonothan Earnshaw | External expert Vascular Consultant/Advisor, Vascular Society representative | Vascular Society |
| Malcolm Johnston | External expert IR consultant/advisor | BSUH |
| Waleed Edress | Clinical lead, Vascular Consultant MFT | MFT |
| Noel Wilson | Clinical lead, vascular Consultant EKHUFT | EKHUFT |
| Rachel Bell | Clinical lead, Vascular Consultant GSTH | GSTH |
| Fabian Sebastian. | Clinical lead IR Consultant MFT | MFT |
| Robert Kaikini | Clinical lead, IR Consultant EKHUFT. | EKHUFT |
| Paul Sigston | Medical Director, MTW | MTW |
| Gerard Sammon. | Deputy CEO, Director of Strategic planning, DVH | DVH |
| Oena Windibank | In attendance, Programme Director (VS review) | NHSE (south) |
| Diana Cargill | In attendance, Service Specialist, Specialised Commissioning. | NHSE (South) |
| Brijender Rana. | In attendance, Consultant Public Health, Specialised Commissioning | NHSE (south) |

5.2 Appendix 2 - CCG Populations (2014/15)

| Clinical Commissioning Group Name | Population |
|--|------------------|
| Dartford and Gravesham and Swanley CCG | 249,000 |
| Medway CCG | 268,000 |
| Swale CCG | 108,000 |
| West Kent CCG | 465,500 |
| Ashford CCG | 120,000 |
| Canterbury and Coastal. | 200,500 |
| Thanet CCG | 135,500 |
| South Kent Coastal CCG | 203,000 |
| Total Population | 1,749,500 |

5.3 Appendix 3 – Core Index Procedures 2013/14

Core Index Procedures

- Elective Abdominal Aortic Aneurysm repair (Including EVAR)
- Emergency Abdominal Aortic Aneurysm repair
- Carotid Endarterectomies
- Leg Arterial Bypass
- Major amputations
- Minor Amputations

Core Index Procedures by Provider 2012/13

- Information from the Case for Change Document
- King's activity will be undertaken at St Thomas' Hospital by the end of 2015/16.
- Dartford and Gravesham Hospital NHS Trust (D&G) and Maidstone and Tunbridge Wells Hospital NHS Trust (MTW) have both ceased to undertake arterial surgery on site.
- The activity (99) under 'other' should be considered as Guys and St Thomas' Hospital, Medway Foundation Trust activity.

| Core Index procedure | Medway FT | East Kent University FT | St Thomas Hospital' | Other (Kings, Dartford & Maidstone) |
|--|------------|-------------------------|---------------------|-------------------------------------|
| Carotid Endarterectomies | 28 | 66 | 18 | 27 |
| Open elective AAA repair | 27 | 23 | 4 | 1 |
| EVAR | 21 | 49 | 49 | 2 |
| Open non elective AAA repair | 12 | 5 | 4 | 0 |
| Leg Bypass | 73 | 69 | 84 | 16 |
| Major Amputations | 52 | 51 | 12 | 21 |
| Minor Amputations | 47 | 68 | 9 | 59 |
| TOTAL | 260 | 331 | 180 | 126 |
| All activity for Kent and Medway population | | | 897 | |

5.4 Appendix 4 – Activity by Option

| Provider Activity; Core index procedures. | Medway FT | East Kent University Hospital FT | St Thomas' Hospital | Total Activity | Explanation |
|--|------------------|---|----------------------------|-----------------------|--|
| Option 1 | 283 | 278 | 180 | 741 | This is the current position; the gap between the total 840 activity and 741 relates to the activity currently identified as 'other' this includes 32 pts who are under the care of GSTH through the SLA |
| Option 2 | 0 | 0 | 840 | 840 | |
| Option 3 | *533 | 307 | 0 | 840 | * includes all West Kent and Dartford CCG activity. |
| Option 4 | 840 0 | 0 840 | 0 0 | 840 | |
| Option 5 | 628 0 | 0 628 | 212 212 | 840 | This makes an assumption that there is no increase in West Kent CCG activity to GSTH only Dartford activity. |
| Option 6 | 533 | 307 | 0 | 840 | |
| Option 7 | 283 | 278 | 212 | 801 | This gap relates to the 'other' activity with the exception of DGS (32) |

5.5 Appendix 5 – Population by Option 1,749,500

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| Population. | MFT | EKHUFT | GTSH | Total Population | Explanation |
|-------------|----------------|----------------------------------|-----------|------------------|---|
| Option 1 | 505,569 | *682,016 | 450,687 | 1,638,272 | Remaining 111,228 population is accounted for within the 'others' category. *EKHUFT figure includes the AAA screening population |
| Option 2 | 0 | 0 | 1,749,500 | 1,749,500 | Need to understand if any EK activity would flow into BSUH |
| Option 3 | 1,090,000 | *659,000 ? plus 23,000 | 0 | | This assumes West and North Kent CCG activity into MFT and EK CCG activity into EKHUFT. *The EKHUFT figure does not include the AAA screening population, this would need to be factored in, Circa 23,000. |
| Option 4 | 1,749,000 0 | 0 1,749,000 | 0 0 | 1,749,500 | |
| Option 5 | 1,187,585 0 | 0 1,187,585. ? plus 23,000 | 450,687 | 1,638, 272; | The difference in population relates to the current population/activity flowing into the 'other' category, it is unclear how much of this would stay in K&M or flow into London and would need to be worked through. This predominantly relates to Maidstone activity as this is not under a current SLA. The AAA screening population is not factored in. |
| Option 6 | | | | | Further analysis of this option is needed to determine the population flows and therefore numbers. |
| Option 7 | 505,569 | 682,016. | 450,687 | 1,638,272; | Remaining population relates to the 'other' category and needs to be worked through re patient flows. Current AAA screening population is factored in. |

5.6 Appendix 6 – Option Score Sheet for Long List to Short List

| | Population | 1: 6 consultant rota viability | 1: 6 IR consultant viability | Emergency transfer time | Comment box | Risks | Overall score (see key) |
|---|------------|--------------------------------|------------------------------|-------------------------|-------------|-------|-------------------------|
| Option 1 ; No change. | | | | | | | |
| Option 2; No K&M hub (GSTH/BSUH) ** EK activity may flow into BSUH rather than into London. | | | | | | | |
| Option 3; Two K&M hubs and no London pathway. | | | | | | | |
| Option 4; One K&M hub with no London Hub. | | | | | | | |
| Option 5; One K&M hub with London pathway. | | | | | | | |
| Option 6; Two networked K&M hubs no London pathway | | | | | | | |
| Option 7; Two networked K&M hubs with London pathway | | | | | | | |

Key

Not a viable option – No – Red

Needs more detailed work – Perhaps – Amber

Viable option – Yes – Green

6 Glossary to be completed

| | |
|----------------------------------|---|
| 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 | <i>Angioplasty</i> 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 <i>carotid endarterectomy</i> is a surgical procedure to unblock a carotid artery (blood vessels that supply the head and neck). |
| Clinical Reference Groups | The specialised commissioning function of NHS England is supported by a devolved clinical leadership model. Seventy-five Clinical Reference Groups (CRGs) covering all prescribed specialised services draw membership from each of the 12 geographical areas in England. CRGs bring together clinicians, commissioners, and Public Health experts with the patients and carers who use specialised services. Members are volunteers who have a particular interest, knowledge or experience of a specific area of specialised healthcare and wish to contribute to its development. They are responsible for preparing national specialised service level strategy and developing specialised service contract products such as service specifications and commissioning policies. |
| Endovascular stent | An endovascular stent graft is a tube composed of grafting fabric supported by a metal mesh called a stent. It can be used for a variety of conditions involving the blood vessels, but most commonly is used to reinforce a weak spot in an artery called an aneurysm. Over time, blood pressure and other factors can cause this weak area to bulge like a balloon and it can eventually enlarge and rupture. The stent graft is designed to seal tightly with your artery above and below the aneurysm. The graft is stronger than the weakened artery and it allows your blood to pass through it without pushing on the bulge. |

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| | |
|-------------------------------|--|
| EVAR | See Abdominal aortic aneurysm repair. |
| Hub Hospital | |
| Interventional radiology | Interventional Radiology is a medical sub-specialty 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. |
| Peripheral arterial disease | <i>Peripheral arterial disease</i> (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. |
| Spoke Hospital | |
| Thoracic aortic disease | Thoracic aortic aneurysms — bulges in the wall of the aorta – are more common than doctors originally thought. If it tears the aorta, the main pipeline for blood |

from the heart to the body, suddenly bursts, cutting off the supply of life-sustaining blood and flooding the chest or abdomen with blood.

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

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.