

# HEALTH AND ADULT SOCIAL CARE OVERVIEW AND SCRUTINY COMMITTEE

11 AUGUST 2015

## PROPOSED DEVELOPMENT OF THE HEALTH SERVICE OR VARIATION IN PROVISION OF HEALTH SERVICE – (SPECIALISED VASCULAR SERVICES)

Report from: Richard Hicks, Deputy Director, Customer Contact, Leisure,  
Culture, Democracy and Governance

Author: Julie Keith, Head of Democratic Services

### Summary

This report advises the Committee of a proposal under consideration by **NHSEngland (South)** to reconfigure/recommission **Specialist Vascular Services**. In the view of **NHSEngland (south)** this **is likely to be** a substantial service reconfiguration. (This will be clearer as the review works through the options)

### 1. Budget and Policy Framework

1.1 Under the Local Authority (Public Health, Health and Wellbeing Boards and Health Scrutiny) Regulations 2013 the Council may review and scrutinise any matter relating to the planning, provision and operation of the health service in Medway. In carrying out health scrutiny a local authority must invite interested parties to comment and take account of any relevant information available to it, and in particular, relevant information provided to it by a local Healthwatch. The Council has delegated responsibility for discharging this function to this Committee and to the Children and Young People's Overview and Scrutiny Committee as set out in the Council's Constitution.

### 2. Background

2.1 Regulation 23 of the Local Authority (Public Health, Health and Wellbeing Boards and Health Scrutiny) Regulations 2013 requires relevant NHS bodies and health service providers ("responsible persons") to consult a local authority about any proposal which they have under consideration for a substantial development of or variation in the provision of health services in the local authority's area. This obligation requires notification and publication of the date on which it is proposed to make a decision as to whether to proceed with the proposal and the date by which Overview and Scrutiny may comment. Where more than one local authority has to be consulted under these provisions those local authorities must convene a Joint Overview and Scrutiny

Committee for the purposes of the consultation and only that Committee may comment. Kent County Council's Health Overview and Scrutiny Committee will consider this matter on the 9 October 2015. If both Kent and Medway determine the change to be substantial it will be necessary to convene the Joint Kent and Medway Health Overview and Scrutiny Committee for the purpose of this consultation.

2.2 The terms "substantial development" and "substantial variation" are not defined in the legislation. Guidance on health scrutiny published by the Department of Health in June 2014 suggests it may be helpful for local authority scrutiny bodies and responsible persons who may be subject to the duty to consult to develop joint protocols or memoranda of understanding about how the parties will reach a view as to whether or not a proposal constitutes a "substantial development" or "substantial variation".

2.3 In the previous protocol on health scrutiny agreed between Medway and NHS bodies a range of factors were listed to assist in assessing whether or not a proposed service reconfiguration is substantial. These are still relevant and are set out below

- *Changes in accessibility of the service. For example, both reductions and increases on a particular site or changes in opening times for a particular clinic. There should be discussion of any proposal which involves the withdrawal of in-patient, day patient or diagnostic facilities for one or more speciality from the same location.*
- *Impact of the service on the wider community and other services, including economic impact, transport and regeneration.*
- *Number of patients/service users affected. Changes may affect the whole population (such as changes to accident and emergency) or a small group (patients accessing a specialised service). If change affects a small group it may still be regarded as substantial, particularly if patients need to continue accessing that service for many years (for example, renal services). There should be an informed discussion about whether this is the case and which level of impact is considered substantial.*
- *Methods of service delivery eg moving a particular service into a community setting from an acute hospital setting.*

2.4 The current DoH guidance suggests local authorities could find a systematic checklist useful in reaching a view on whether or not a proposed service reconfiguration is substantial and that this approach may also be helpful to NHS Commissioners in terms of explaining to providers what is likely to be regarded as substantial. Medway already has a questionnaire for use by responsible bodies wishing to consult Medway Council's Overview and Scrutiny Committees on proposed health service reconfigurations (attached as Appendix A). The questionnaire has recently been updated. It asks for information relating to the factors listed in paragraph 2.3 above, seeks assurance that the proposed change meets the Government's four tests for health service reconfigurations (as introduced in the NHS Operating Framework 2010-2011) and also seeks information the Committee may need to demonstrate it has considered in the event of a decision to exercise the right

to report a contested service reconfiguration to the Secretary of State for Health.

- 2.5 The legislation makes provision for local authorities to report a contested substantial health service development or variation to the Secretary of State in certain circumstances, after reasonable steps have been taken locally to resolve any disagreement between the local authority and the relevant responsible person on any recommendations made by the local authority in relation to the proposal. The circumstances in which a report to the Secretary of State is permitted are where the local authority is not satisfied that consultation on the proposed substantial health service development or variation has been adequate, in relation to content or time allowed, or where the authority considers that the proposal would not be in the interests of the health service in its area, or it has not been consulted, and it is not satisfied that the reasons given for not carrying out consultation are adequate.

### **3. Proposed service development or variation**

- 3.1 To review the provision of Specialised Vascular services for Kent and Medway residents in order to comply with the national specification and clinical guidance and improve outcomes for patients. This may result in centralising services and or altering patient flows across Kent and Medway.

### **4. Advice and analysis**

- 4.1 The Committee needs to determine in discussion with the responsible person whether or not the proposed reconfiguration is substantial and therefore subject to the formal requirement for consultation with Overview and Scrutiny.
- 4.2 If the proposed reconfiguration is substantial the Committee should be advised of the date by which the responsible person intends to make a decision as to whether to proceed with the proposal and the date by which Overview and Scrutiny Committee comments must be submitted.
- 4.3 If it is agreed that the proposed change is not substantial the Committee may make comments and recommendations to the Commissioning body and or Provider organisation as permitted by the regulations in relation to any matter it has reviewed or scrutinised relating to the planning, provision and operation of the health service in Medway.

### **5. Risk management**

- 5.1 Risk management is an integral part of good governance. The Council has a responsibility to identify and manage threats and risks to achieve its strategic objectives and enhance the value of services it provides to the community.

<b>Risk</b>	<b>Description</b>	<b>Action to avoid or mitigate risk</b>
Current Vascular Services for Kent and Medway residents may be compromised.	A lack of provider engagement may result in an inability to develop a collaborative and sustainable solution across Kent and Medway.	K&M providers and clinicians members of the programme board.  Clinical modelling group to work through the issues and concerns. External expertise from the vascular society to support the review
An inability to resolve the current issues may result in one or more of the current sites being unsustainable in the short/medium term, this will impact on pt access and/or outcomes.	Current provision is not meeting the national specification, particularly in relation to volumes, numbers of procedures and workforce.	The review aims are to resolve the current service issues. K&M providers to advise the PAB/specialised commissioners of increasing issues/concerns through the process.

## 6. Consultation

- 6.1 Engagement events are underway with patients and public and will be central to the process, building on feedback at the key decision making points. Public consultation will depend on the nature of the change recommended.

## 7. Financial implications

- 7.1 This will be developed as the options are appraised. The current and projected demand will continue to be met. The main implications may relate to capital costs dependent on the preferred options although there are existing facilities within Kent and Medway.
- 7.2 Increased transport costs will also be considered relating to the possible options, including ambulance and personal transport.

## 8. Legal implications

- 8.1 Under Chapter 4 – Rules, paragraph 22.2 (c) terms of reference for Health and Adult Social Care Overview and Scrutiny Committee has powers to review and scrutinise matters relating to the health service in the area including NHS Scrutiny.
- 8.2 Provision for health scrutiny is made in the Local Authority (Public Health, Health and wellbeing Boards and Health Scrutiny) Regulations 2013 together with a requirement on relevant NHS bodies and health service providers to

consult with local authorities about any proposal which they have under consideration for a substantial development of or variation in the provision of health services in the local authority's area

- 8.3 There are no additional legal implications for the Council, which have not already been considered within the report.

## **9. Recommendations**

- 9.1 The Committee is asked to consider the proposed development or variation to the health service as set out in this report and Appendix A and decide whether or not it is substantial together with the consequential arrangements for providing comments to the relevant NHS body or health service provider either directly by this Committee or via the Joint Health Overview and Scrutiny Committee with Kent County Council if KCC also consider the proposal to be substantial.

### **Lead officer contact**

Julie Keith, Head of Democratic Services

Email [julie.keith@medway.gov.uk](mailto:julie.keith@medway.gov.uk)

Telephone: 01634 332760

### **Appendices**

Appendix A – Substantial Variation Assessment Questionnaire

Appendix B – Case for Change

Appendix C – Decision making process and criteria

### **Background papers**

K&M Vascular Services Review, Case for Change.

K&M Vascular Services Decision Making process



**MEDWAY COUNCIL**

Gun Wharf  
Dock Road  
Chatham ME4 4TR



**Health Overview and Scrutiny**

**Assessment of whether or not a proposal for the development of the health service or a variation in the provision of the health service in Medway is substantial**

**A brief outline of the proposal with reasons for the change**

**Commissioning Body and contact details:**  
**NHSEngland, Specilaised Commissioning**

**Current/prospective Provider(s):**  
**Medway NHS Foundation Trust.**  
**East Kent Hospitals NHS University Trust.**  
**Guys and St.Thomas' NHS Hospitals Trust**

**Outline of proposal with reasons:**

. A vascular services review has been initiated across Kent and Medway by NHS England (South) with regard to determining the current position of vascular services and identifying recommendations, if required, to improve the delivery model. The national specification and best practice guidance ( Provision of Vascular Services Guidance, Vascular Society) have been used as the benchmark measure for the review. This reflects vascular services reviews national including across the South region.

The types of vascular disease treated are :

Aortic aneurysms – a bulge in the artery wall that can rupture (treatment may be planned or as an emergency)  
Carotid artery disease, which can lead to stroke  
Arterial blockages, which can put limbs at risk

The type of treatment that might be required includes:

Complex and potentially high risk bypass surgery to the neck, abdomen or limbs  
Balloon or stent treatment to narrowed or blocked arteries  
Blood clot dissolving treatments to the limbs  
Stent grafts of varying complexity to treat aneurysms.

### **What does the national specification require of specialist vascular centres?**

The national specification requires specialist vascular centres to:

- Serve a minimum population of 800,000 to ensure all staff can treat enough different cases to maintain their competency and improve their skills.
- Have the right mix of highly skilled and experienced staff who each carry out enough specific procedures to maintain and improve their skills
- Have 24/7 on-site vascular surgery and interventional radiology on-call rotas that are staffed by a minimum of six vascular surgeons and six interventional radiologists, to ensure consistent high-quality care;
- 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, among other specialties, to provide a comprehensive multi-disciplinary service;
- Be part of a wider clinical network which increases benefits for patients by providing oversight, governance and opportunities for innovative treatment for patients and development for staff.

### **The Aim of the Kent and Medway Vascular Services Review:**

To make recommendations that ensure that quality safe and sustainable vascular services can be delivered now and into the future for Kent and Medway residents.

- . **The Case for Change illustrates that Kent and Medway vascular services are not currently fully operating within the national clinical guidance or service specification. There have also been concerns raised in relation to sustainability.**
- . **There is therefore a need to identify clinically led solutions that can resolve the non-compliance, ensuring a quality and sustainable service and improving outcomes for patients.**
- .
- . In Kent and Medway arterial surgery is commissioned from two K&M providers, Medway Foundation Trust (MFT) and East Kent Hospitals University Foundation Trust (EKUHFT).
- . Neither of these providers is fully compliant with the specification which means that there is commissioner led requirement to review/derogation in place for both Trusts.
- . This review addresses these issues.



- . A significant proportion of Kent and Medway activity (circa 28%) flows into London, mainly to Guys and St.Thomas' Hospitals Foundation Trust.
- . In 2013/14 a total of 897 Kent and Medway residents received Specialised Vascular Services.

When referencing the national service specification and the Vascular Society Provision of Vascular Services Guidance (POVS 2013 and annual updates) the position in Kent and Medway demonstrates that the key areas of non-compliance relate to:

- . No vascular network across Kent and Medway. ( Vascular networks are recommended as they ensure consistent delivery of best practice and clear pathways with other clinical areas) Local pathways appear generally cohesive however there is a lack of clarity in relation to the pathway into the London network and the relationship with the Diabetic network.
- . The populations currently served by East Kent University Hospitals NHS Foundation Trust and Medway Foundation Trust are both below the required level of 800,000.
- . At both K&M Trusts the total volume of activity for some of the core index procedures is either borderline or below the recommended numbers.
- . The consultant workforce numbers are currently lower than required and the sustainability of the current vascular surgical and IR rotas is a concern.
- . Some vascular care is delivered at other acute sites in Kent and Medway through visiting specialists; this includes some surgery and outpatient care. This pathway is not clear.

This Case for Change will reflect the learning from Public Listening Events, the South East Coast Clinical Senate and the Vascular Review Programme Advisory Board members and the national clinical guidance and specification.

The next steps will proceed to work to develop options to address the issues identified within the Case for Change to enable sustainable vascular services based on clinical best practice for Kent and Medway residents. This will include working with local and national clinical leads in Vascular services and the local Kent and Medway population modeling the possible options and impacts.

- . These options may range from;
- . do nothing ,
- . centralising Vascular surgery on a single site within a Kent and Medway network

- . delivery of vascular surgery through the SE London Vascular network.
- . Delivery of K&M Vascular services through a collaborative network model
- . All options will consider the Vascular pathway from identification and diagnosis through treatment, discharge and follow up.
- . The review will fully consider the impact of any service changes on other key clinical dependencies in particular Interventional radiology and including renal services, diabetic services, emergency care and high risk maternity care.

The Case for Change makes two recommendations to NHS England, Specialised Commissioners;

- . To recognise that there is a Case for Change if services in Kent and Medway are to comply with the national specification and clinical best practice guidance to ensure both quality and service sustainability of vascular services.
- . To agree to proceeding with an option appraisal process to identify a consensus agreement on the preferred solution going forward.

There is a clinically-led Programme Board working with NHS England to consider what needs to be done.

Public health specialists are taking a detailed look at the needs of the area and its predicted growth to help us plan for the future. Expert specialists from the Vascular Society are advising the local Programme Board.

Concerns and evidence about the current services have been shared with the South East Coast Clinical Senate, which maintains an overview of health services across Kent, Surrey and Sussex. The Senate's role is to check that plans for changing inpatient vascular services are clinically sound and will improve outcomes for patients.

**Intended decision date and deadline for comments** (The Local Authority (Public Health, Health and Wellbeing Boards and Health Scrutiny) Regulations 2013 require the local authority to be notified of the date when it is intended to make a decision as to whether to proceed with any proposal for a substantial service development or variation and the deadline for Overview and Scrutiny comments to be submitted. These dates should be published.

The Case for Change and Decision making Process timeline is approval at the K&M Vascular Services Review Programme Advisory Board (PAB) in July 2015 . This will be formally approved through the Specilaised Commissioning Operartional deleivery group in the summer.

HOSC and HASC engagment will commence with the case for Change July/August and will be undertaken throughout the process.

The Options Appriaisal will aim to produce a preffered option for NHSEngalnd specialised commissioning late Autumn 2015 followed by formal consultation as required.

If approved any changes are anticipated to begin implementation from April 2016.

### **Alignment with the Medway Joint Health and Wellbeing Strategy (JHWBS).**

Please explain below how the proposal will contribute to delivery of the priority themes and actions set out in Medway's JHWBS and:

- how the proposed reconfiguration will reduce health inequalities and
- promote new or enhanced integrated working between health and social care and/or other health related services

The preferred options will ensure that all K&M residents are equally able ro recieve quality and sustaianble Vascular Services in line with the national specifaction that promotes postive patient outcomes.

Improved outcomes for vascular patinets is aligned with the idenitified need to improve the impact of Cardiovascular disease on the population.

Development of a network model for K&M patients will increase consistent access through a clear and accessible pathway.

The patients own health care front door/entrance into health care services will ensure immediate access into the specilaised pathway required for Vascular Care.

The improved pathway will ensure that there is earlier intervention particulary in proactively managing Diabetic patients.

The pathwya will support and enhance the natuonal screening progarmme for Abdominal Aortic Aneurysms.

The network model will egnage a wider group of health providers across Kent and Medway and should enable a smooth and speedier repatriation to local hospital or dischage home. This will maximise use of both the specilased service and the supporting health and social care services.

**Please provide evidence that the proposal meets the Government's four tests for reconfigurations (introduced in the NHS Operating Framework 2010-2011):**

**Test 1 - Strong public and patient engagement**

- (i) Have patients and the public been involved in planning and developing the proposal?
- (ii) List the groups and stakeholders that have been consulted
- (iii) Has there been engagement with Medway Healthwatch?
- (iv) What has been the outcome of the consultation?
- (v) Weight given to patient, public and stakeholder views

(1) A Communication and Engagement plan is in place and monitored through the review Programme Advisory Board. This plan identifies key public/patient engagement activities along the review pathway.

Key milestones will reflect patient and public involvement.

This includes;

- Developing and understanding the Case for Change
- Reflecting views and feedback into the decision making process development
- Involvement in reviewing potential options and the short list and developing through options appraisal the preferred option.

(2) Engagement has/will take place with;

- Local K&M, London and expert clinicians
- Public Health
- HWB
- Kent and Medway Healthwatch
- K&M CCG's
- K&M and South East London Providers.
- NHEngland South
- Cardiovascular Clinical Network, NHS England South
- Pt/public groups identified through the Vascular services providers, local public interest groups, CCG public and patient groups.
- National Vascular Society
- NHS England South vascular review programme leads
- NHS England South specialised commissioning
- SE London, Specialised Commissioners.
- South East Clinical senate

Feedback from the various engagement forums have and will be included into the review, The Case for Change, the Decision making Process and the options appraisal process.

Key impacts to date have to been to expand the review to ensure the London pathway is fully incorporated and the impact of this activity fully considered in the review.

To consider a wider range of options including consideration of repatriation of activity.

To undertake detailed understanding of key interdependencies in particular the impact on Interventional radiology within K&M

To clearly understand the impact of travel times and access on possible options.

Early public feedback relates to the importance of supporting patients across the pathway, safe and rapid access to specialist care, appropriate specialist skills available.

(3) Yes.

(4) As above, engagement is currently ongoing and formal consultation will take place if required once the final option is agreed.

(5) All feedback will be considered and considerable weight has/will be taken into account of all engagement feedback within the context of delivering a safe specification that can meet the specification and provide a high quality safe service to Kent and Medway residents

## **Test 2 - Consistency with current and prospective need for patient choice**

The review will review the impact of patient choice within the options appraisal and the impact of the options on patient choice.

There is a clear pattern of patient and clinical choice that has resulted in the particular pathways of care and referrals. This particularly accounts for approximately 28% of activity into SE London providers. This will be particularly considered when working with the patients and public through the options appraisal

**Test 3 - A clear clinical evidence base**

- (i) Is there evidence to show the change will deliver the same or better clinical outcomes for patients?
- (ii) Will any groups be less well off?
- (iii) Will the proposal contribute to achievement of national and local priorities/targets?

- I. Yes;  
The Case for Change illustrates that the current delivery within K&M is not fully meeting the evidence based specification. The specification and vascular society guidance provides a clear evidence base that shows improved patient outcomes and this will be the basis of decision making for the preferred option.
- II. All Kent and Medway residents will continue to be able to access Vascular specialist services. Dependent on the preferred option some patients may need to travel to a different Arterial centre ( In patient unit) for care, this may be further than they currently do.  
The key issue to be considered will be any possible impact on travel times and journeys for patients and their families. This will also be considered within the clinical guidance from the vascular society guidance in relation to travel times to ensure there is no negative impact on patient outcomes. The recommendation will be based on delivering improved outcomes for all K&M patients
- III. Yes. The preferred outcome will enable the delivery of the national specification, and improving outcomes for vascular patients has and is a national priority and a priority for NHEngland Specialised Commissioning.

**Test 4 - Evidence of support for proposals from clinical commissioners – please include commentary specifically on patient safety**

Clinical commissioners are part of the review process and approval of the preferred option is a key milestone in the process.

Approval by clinical commissioning of the Case for Change has been achieved through representation at the Programme advisory Board and discussion with CCGs.

The Programme Board ( and review) is led by NHEngland South Medical Director and the members include lead vascular surgeons and Interventional radiologists from the three main providers of Vascular services. Clinical leads from the remaining hospitals in Kent and Medway are also on the programme board.

The Vascular society is represented on the programme board and Interventional radiology is represented by an independent clinical expert.

Patient safety and patient choice have been key to the approval by the clinical commissioners with concerns raised re sustainability of the current provision and any considerations that impact on patient choice.

A Quality review of patient safety is built into the options appraisal process. The preferred option will ensure that patient safety is a priority and the recommendation will ensure safe and sustainable clinical practice for Kent and Medway residents. This will include all aspects of the patient journey, the clinical skills and workforce and facilities and the ability of the provider to meet quality and safety measures.

#### **Effect on access to services**

- (a) The number of patients likely to be affected
- (b) Will a service be withdrawn from any patients?
- (c) Will new services be available to patients?
- (d) Will patients and carers experience a change in the way they access services (ie changes to travel or times of the day)?

(a) Currently 897 Kent and Medway patients have received Vascular surgery (13/14 activity)

(b) No, the delivery sites may change but the service will remain available for all current and future vascular patients.

(c) Yes we anticipate that there will be an ability to develop innovative practice through the preferred option and to increase access to outpatients, diagnostics, local day surgery availability.

(d) Depending on the preferred option some patients may have to travel further to a central site. The establishment of the network model will aim to ensure that emergency patients are appropriately transferred between hospitals.

**Demographic assumptions**

- (a) What demographic projections have been taken into account in formulating the proposals?
- (b) What are the implications for future patient flows and catchment areas for the service?

(a) The projected population growth and growth in age groups and clinical risk factors for Kent and Medway has been taken into account in planning activity and will be fully explored in each possible option.

Review of planned developments has been considered in relation to increasing population and demographics.

(b) Depending on the preferred options, patient flows could increase or reduce into SE London and could flow into a single K&M hub, the site is yet to be considered as part of the review process.  
The catchment area is unlikely to increase although a potential is that an improved and sustainable K&M model will increase patient choice to flow into K&M.

**Diversity Impact**

Please set out details of your diversity impact assessment for the proposal and any action proposed to mitigate negative impact on any specific groups of people in Medway?

Early development of an Equality Impact Assessment has been undertaken and detailed work will be undertaken through the options appraisal process



**Financial Sustainability**

- (a) Will the change generate a significant increase or decrease in demand for a service?
- (b) To what extent is this proposal driven by financial implications? (For example the need to make efficiency savings)
- (c) What would be the impact of 'no change'?

Detailed financial modelling will be undertaken through the option appraisal process.

- (a) Depend on the preferred option but will not impact on overall demand or cost.
- (b) The proposal is not driven by financial reasons, it is expected that the preferred option will make the model financially viable as this is not currently the case with the existing model.
- (c) The review will understand the current 'cost' of the existing model and the short/medium/long term sustainability of this, including the viability for the individual Trusts

**Wider Infrastructure**

- (a) What infrastructure will be available to support the redesigned or reconfigured service?
- (b) Please comment on transport implications in the context of sustainability and access

- (a) This will be fully understood through the option appraisal and understanding of activity numbers into the options but initial analysis would suggest little additional infrastructure is required if any.
- (b) Transport implications will depend on the preferred option. This will be significant if there is only a London hub, no impact if there is no change and an impact if there is a centralised K&M service. The detail is currently being worked through to understand both emergency travel and public transport for relatives. The possible increase in access to out-patient services will assist some K&M patients with reduced travel.

**Is there any other information you feel the Committee should consider?**

**Please state whether or not you consider this proposal to be substantial, thereby generating a statutory requirement to consult with Overview and Scrutiny**

We envisage that the current model is not sustainable and cannot deliver the best practice requirements/national specification or make continued improvements in patient outcomes.  
This review may result in a change to the current model of provision such as a reduction of the number of arterial (in patient) centres in Kent and Medway or a network collaborative model and may also create a change in patient access to the service



# **Vascular Surgery Review for Kent and Medway**

## **Case for Change**

OFFICIAL

# **Vascular Surgery Review for Kent and Medway**

**Subtitle (please add or delete this text)**

Version number: 13

First published: 11/03/15

Updated: (only if this is applicable)

Prepared by: Oena Windibank

Classification: OFFICIAL

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.

## OFFICIAL

1	Executive Summary .....	4
2	Purpose of the Report .....	8
3	Recommendations .....	8
4	Background .....	8
4.1	Specification Standards .....	10
4.2	Map of Kent and Medway with CCGs and Acute Hospital Sites.....	12
4.3	Current In Patient Pathway .....	12
4.4	Kent and Medway Clinical Commissioning Groups.....	13
4.5	Current Patient Flows.....	13
4.6	Elective Care Pathway .....	14
4.7	Emergency Pathway of Care.....	15
4.8	Referral Pathways.....	17
5	Core Information and Standards .....	17
5.1	National Service Specification.....	17
5.2	The Vascular Society .....	18
5.3	Core Index Procedures .....	19
5.4	Reviews and Literature .....	21
6	Additional Information .....	22
6.1	The Case for Concentrating In-Patient Surgery .....	22
6.2	New Technology .....	22
6.3	Travel - The impact of Travel Distance and Times:.....	23
6.4	Acute Hospital Providers .....	24
6.5	Health Needs Assessment.....	25
7	Key Findings .....	25
7.1	Self-Assessment of Current Kent and Medway Providers.....	25
7.2	Activity Data .....	26
7.3	Outcomes.....	27
7.4	Population Data.....	27
7.5	Pathway Analysis .....	27
7.6	Workforce.....	28
7.7	Vascular Consultants. ....	28
7.8	Vascular Interventional radiologists.....	29
7.9	Vascular Nurse Specialists.....	30
7.10	Vascular Multi Disciplinary team .....	30
7.11	Travel Times .....	31
7.12	Critical Co-dependencies.....	31
7.13	Diabetic Care .....	32
7.14	National Specification – Kent and Medway Position .....	32
8	Proposal Benefits.....	34
9	Next Steps .....	36
10	Glossary.....	37

## 1 Executive Summary

Following concerns re the outcomes for patients in England and Wales receiving vascular services a national service specification was implemented in 2013. The standards within the specification were developed through a specialised Clinical Reference Group (CRG) and reflect the best practice guidance of the National Vascular Society 2013.

The key aim of the specification and guidance is to improve outcomes, providing patients with vascular disease with the lowest possible elective and emergency morbidity and mortality rates. The clinical evidence underpinning the specification and guidance recognises the relationship between adequate volumes and improved patient outcomes.

The Vascular Society guidance identifies best practice, which has been adopted within the national specification standards.

The key features relate to:

- Delivering vascular services through a network where one hospital (the hub) provides all the in-patient surgery and the other hospitals (spokes) work in collaboration with the hub to provide out patient services, diagnostic services and, where appropriate, some day case surg
- Minimum population volumes to deliver adequate vascular interventions.
- 24 hour access to specialist care including vascular surgeons, interventional radiologists and specialist nurses, including sustainable on call rotas.
- Access to hybrid operating facilities.
- Specialist clinicians undertaking adequate volumes of core index procedures to ensure consistent safe quality care.

A vascular services review has been initiated across Kent and Medway by NHS England (South) with regard to determining the current position of vascular services and identifying recommendations, if required, to improve the delivery model. The national specification and best practice guidance have been used as the benchmark measure for the review.

The review process is overseen by a Programme Advisory Board which is clinically led and has both external and local clinical expertise representation.

Throughout the review process there will be active engagement with the public and key stakeholders developing the Case for Change, the decision making process and the final recommendations. This will include Listening events, focus groups and a public/patient sub group of the Programme Advisory Board

Key interdependencies will be identified with a particular emphasis on the central relationship with Interventional radiology.

## OFFICIAL

**The aim of the review is to ensure that quality, safe and sustainable vascular services can be delivered now and into the future.**

The key recommendations will seek to not only deliver the national specification but also will ensure that;

- Clinical best practice is embedded into the vascular pathway.
- There are additional quality improvements benefits across Kent and Medway including for vascular patients, the health economy, the workforce and other clinical areas/specialities
- The Vascular care model for Kent and Medway attracts, and is delivered by, skilled motivated clinicians across the multi-disciplinary professions; improving both vascular outcomes but also key clinical interdependencies
- Vascular services are sustainable for the future recognising the projected population growth/changes.
- Patients receive an effective pathway from the point of initial symptoms through to their return home.
- The vascular pathway is delivered within a multi disciplinary model effectively utilising the skills of a range of specialised professionals.

The following Case for Change illustrates that Kent and Medway vascular services are not currently operating within the national clinical guidance or service specification.

On this basis there is a need to identify clinically led solutions that can both resolve the non-compliance and ensure sustainable high quality vascular services are equally available for all Kent and Medway residents.

In Kent and Medway arterial surgery is commissioned from two providers, Medway Foundation Trust (MFT) and East Kent Hospitals University Foundation Trust (EKUHFT). Neither of these providers is fully compliant with the specification and a commissioner led derogation is in place for both Trusts. This review addresses that derogation and ensures that the future model can deliver excellence in outcomes.

A significant proportion of Kent and Medway activity (circa 26%) flows into London, mainly to Guys and St.Thomas' Hospitals Foundation Trust. These services are commissioned by NHS England – SE London. This review will describe the detail of the referral pathway both elective and emergency; associated with this activity. It will also consider the patient flow into London within recommendations for the future sustainability and quality of vascular services for Kent and Medway residents.

When referencing the national service specification and the Best Practice Guidance the position in Kent and Medway demonstrates that the key areas of non-compliance relate to:

## OFFICIAL

- The lack of a vascular network across Kent and Medway. Local pathways appear cohesive however there is a lack of clarity in relation to the pathway into the London network and little evidence of collaboration between The Kent and Medway units.
- The populations currently served by East Kent University Hospitals NHS Foundation Trust and Medway Foundation Trust are both below the required level of 800,000. It is anticipated that the minimum population of 800,000 recommended by the vascular society will rise in the next year or two.
- At both trusts the total volume of activity for some of the core index procedures is either borderline or below the recommended numbers.
- The consultant workforce numbers are currently lower than required and the sustainability of the current vascular surgical and interventional radiology rotas is a concern.
- Some vascular care is delivered at other acute trusts in Kent and Medway through visiting specialists; this includes some surgery and outpatient care. This pathway is currently not clearly defined.

The Case for Change seeks to highlight the current position and the requirement to develop a clinical model that can both resolve the non-compliance issues but also deliver quality improvements.

Following endorsement of The Case for Change by the Programme Board, the review will proceed to assess the possible options that can deliver the improvements agreed as required.

The review will develop a preferred option for approval by NHS England South, Specialised Commissioning. This option appraisal process will consider key issues, variables and impacts.

These will include:

- Understanding population growth and changes
- The vascular pathway from symptom to rehabilitation
- Key interdependencies; interventional radiology, emergency departments, diagnostics and other clinical specialities.
- Workforce issues and interdependencies
- Repatriation of patient pathways.
- Understanding the impact on the Vascular Services finances.

And further issues identified through public, clinical and stakeholder engagement

The Kent and Medway review recommends that there should be no justification for any reconfiguration not to deliver the care standards and key service outcomes specified in NSS and VSGBI 2012 and 2014

The key benefits we expect for patients are:

- Continued improvement of clinical outcomes, in particular lower limb amputation



## OFFICIAL

- The development of skills and expertise so that patients are better able to manage their condition and recovery.
- A transparent and effective vascular network, ensuring a smooth pathway across Kent and Medway.
- Increased access to outpatient clinics at spoke units.
- Improve sustainability of the existing vascular services, meeting the needs of both current and future patients and populations.
- Clear lines of accountability and clinical governance across the network that puts clinicians and patients at the heart of performance monitoring and service development.
- A sustainable specialist workforce; consultant surgeons, IR consultants, specialist nurses and the wider multi disciplinary team.
- Standardised methods and promotion of best practice across the clinical teams;
- A more productive and efficient service (minimisation of duplication).
- Improved opportunities for training, research and innovation;
- Reduced length of stay for patients and more effective pathway links with community providers to support timely repatriation of patients following surgery.

**Conclusion:**

The Case for Change establishes that the current vascular services delivered in Kent and Medway, whilst delivering on most of the key outcome measures do not meet the national specification and best practice (Vascular Society) guidelines. These issues relate to the low population volumes, low level or borderline numbers of core index procedures and sub optimal staffing levels across Kent and Medway.

The review's next step will be to develop a register of options to address the issues identified within the Case for Change.

## 2 Purpose of the Report

The purpose of this report is to highlight the current position and compliance issues across Kent and Medway's vascular services and to recommend to the Programme Board, that they endorse proceeding to an options appraisal review.

The options appraisal review will consider and then recommend to the Programme Board how vascular surgery providers in Kent and Medway should work to meet the criteria outlined in the national service specification, that is being implemented across England, in a way that is safe, sustainable and can deliver quality improvements.

## 3 Recommendations

1. To recognise that there is a Case for Change if services in Kent and Medway are to comply with the national specification and clinical best practice guidance, ensuring both quality and service sustainability of vascular services.
2. To agree to proceeding with an option appraisal process to identify a consensus agreement on the preferred solution going forward.

## 4 Background

The scope of specialist 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 (Vascular Society of Great Britain and Ireland - 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 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.

## OFFICIAL

The NHS AAA Screening Programme has made adopting the AAA QIF mandatory for providers treating patients referred from the programme.

In light of these recommendations NHS England, as the commissioners of specialist vascular services, published a national service 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 national service specifications. Reporting outcomes of all vascular surgical procedures to the new National Vascular Registry will be mandatory from April 2015. A copy of the national service specification for vascular services can be found at:

<http://www.england.nhs.uk/commissioning/spec-services/npc-crg/group-a/a04/>

The national service specification, the Vascular Society guidance and a range of research papers culminate in the conclusion that an arterial centre needs to provide complex aortic endovascular procedures from a dedicated vascular hybrid theatre. This must be supported by 24/7 vascular surgery and 24/7 interventional radiology, bringing together the expertise and experience of key clinicians in these techniques to provide both elective endovascular procedures and emergency procedures such as endovascular repair for ruptured abdominal aortic aneurysm.

This arrangement has the potential to significantly improve the length of recovery and reduce the risk of surgical complications and the risk of mortality compared to conventional open repairs.

Re-organisation of vascular services into networks enables NHS England to commission more resilient and sustainable vascular services.

Since the publication of the national service specification NHS England – South Coast have been reviewing vascular services across Kent, Surrey and Sussex 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 (individually undertaking a minimum number of interventions).
- 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.

## OFFICIAL

- 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 specialties to provide a comprehensive multi-disciplinary service.
- Care of patients will be managed through regular multi-disciplinary team meetings, which will occur at least once a week.
- Provider networks will work towards the aim of all leg amputations being undertaken in arterial centres by 2015

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 to patient

The emphasis on high volume specialist units particularly relates to concerns regarding the risks or poorer outcomes associated with a low numbers of cases each year. Nationally there has been a recognition of the need for reconfiguration proposals to deliver sufficient activity per consultant to maintain standards.

Medway Foundation Trust and East Kent Hospitals University Trust are the two current arterial centres in Kent and Medway.

The tables below show, neither of these trusts fully meets the national service specification.

#### 4.1 Specification Standards

The following table represent the status of the current services measured against the national specification of Medway Foundation Trust, East Kent Hospitals University Foundation Trust and Guys and St.Thomas' Hospitals Trust ( the main London provider for K&M).

Required	Medway FT	East Kent Hospitals	St Thomas' Hospital	Comments
<b>24/7 MDT</b>	No	No	Yes	
<b>wte vascular surgeons.</b>	No	No	Yes	Recruitment underway in both Trusts
<b>On call rota (1:6)</b>	1:6	1:4	1:6	(April 2015)

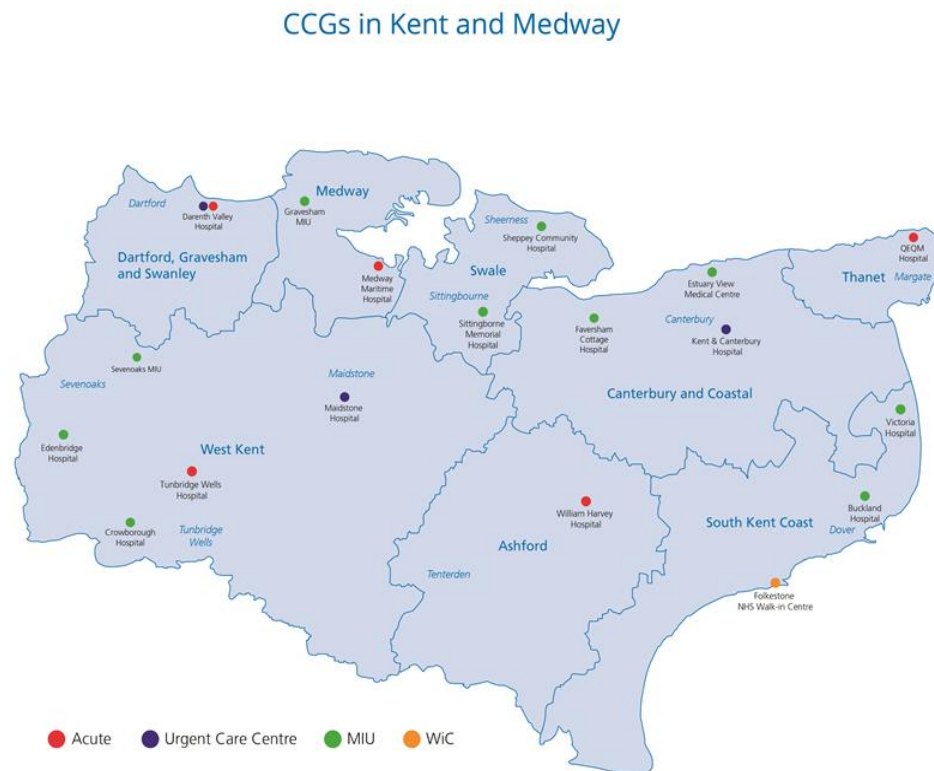
## OFFICIAL

<b>On call Interventional radiology</b>	tbc	tbc	Yes	
<b>AAA screening</b>	Through EK programme	Yes	Yes	The EKHUFT screening programme covers the whole of Kent
<b>Outpatient assessment</b>	Yes	Yes	Yes	
<b>Diagnostics</b>	Yes	Yes	Yes	
<b>In patient non arterial services</b>	Yes	Yes	Yes	
<b>Elective and emergency arterial services</b>	Yes	Yes	Yes	
<b>Day case surgery</b>	Yes	Yes	Yes	
<b>Population currently served; as noted through activity flows</b>	505,569	682,106	450,687 from Kent (plus South London)	Kent Population treated in London: 450,687  Kent population treated outside Kent or London: 86,417
<b>Mortality</b>	Meets the national requirements	Meets the national requirements	Meets the national requirements	Within national tolerance

Table 1

## OFFICIAL

## 4.2 Map of Kent and Medway with CCGs and Acute Hospital Sites



## 4.3 Current In Patient Pathway

Vascular Surgery is currently delivered in Kent and Medway at two acute hospital sites:

- East Kent University Hospitals NHS Foundation Trust in Canterbury (EKHUFT)
- Medway NHS Foundation Trust in Medway (MFT)
- Guy's and St Thomas' NHS Foundation Trust - A number of patients travel to London hospitals (most are referred to Guy's and St Thomas NHS Foundation Trust), the majority of the patients are residents in the West and North of Kent; predominantly in the catchment areas of NHS West Kent CCG and NHS Dartford, Gravesham and Swanley CCG.
- A small number of patients across Kent and Medway requiring highly specialised surgical interventions are referred into tertiary providers in London.

East Kent Hospitals Foundation Trust also delivers the AAA screening programme for all Kent and Medway residents.

## OFFICIAL

## 4.4 Kent and Medway Clinical Commissioning Groups

### North Kent CCGs

	Population
Dartford & Gravesham and Swanley CCG	249,000
Medway CCG	268,000
Swale CCG	108,000

### East Kent CCGs

Ashford CCG	120,000
Canterbury & Coastal CCG	200,500
Thanet CCG	135,500
South Kent Coast CCG	203,000

### West Kent CCG

West Kent CCG	465,500
---------------	---------

### Total

**1,747,500**

### Local Authorities serving Kent and Medway

Kent County Council

Medway Council

## 4.5 Current Patient Flows

Kent and Medway referral flows for total Core Index Procedures.

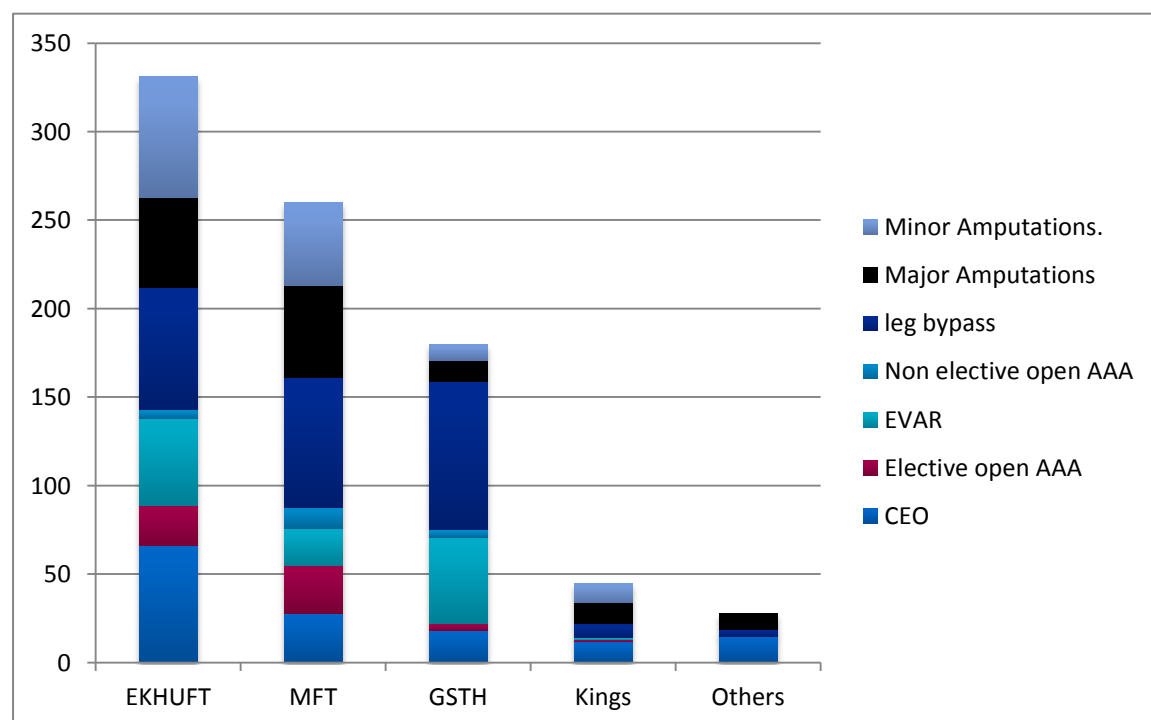


Table 2

## OFFICIAL

## 4.6 Elective Care Pathway

Patients may enter an elective pathway via a GP referral, a referral from the emergency department, a referral from another secondary care specialty (e.g. diabetes or stroke) or through the AAA screening programme.

If the referral is generated by secondary care (an acute hospital consultant) the patient will either be seen at the same hospital if they provide vascular services or referred to the vascular service used by that consultant. Patients should be given a choice. If the referral is made by a GP or from the AAA screening programme the patient should again be given a choice regarding where they would like to be referred.

For elective patients, the initial referral will normally be for an outpatient appointment. These currently take place at:

- Kent and Canterbury Hospital, Canterbury - (East Kent University Hospitals NHS Foundation Trust)
- Medway Maritime Hospital, Gillingham - (Medway Foundation Trust)
- Pembury Hospital, Pembury - (Maidstone and Tunbridge Wells NHS Trust)
- Maidstone Hospital, Maidstone - (Maidstone and Tunbridge Wells NHS Trust)
- Darent Valley Hospital – (Dartford and Gravesham NHS Trust)
- St. Thomas' Hospital, London – (Guy's & St Thomas' Hospital NHS FT)

Following the outpatient appointment people will undergo diagnostics tests as required at Medway Hospital, Kent and Canterbury Hospital or Tunbridge Wells Hospital and in some cases Guys and St Thomas 'Hospital in London, which will include vascular studies (through vascular laboratories) and radiology.

Following diagnostic test results a discussion is held about each patient at a multidisciplinary team (MDT) meeting. If the decision is made to operate, the patient will be listed either for surgery or an interventional radiological procedure (as either a day case or inpatient procedure). The patient will then be required to attend the hospital where they will be having surgery for a pre-operative assessment. At this stage it may also be determined that a high dependency care bed is required and this will be requested.

Currently surgery performed in Kent and Medway is provided by East Kent University Hospitals NHS Foundation Trust at Canterbury and Medway NHS Foundation Trust at Gillingham. The majority of out of area surgery takes place at St. Thomas' Hospital, London.

Following elective surgery patients recover in the hospital in which they had their surgery. They will then be discharged home or to a community provider (if further rehabilitation is required or if there are further co-morbidities or social issues).



## OFFICIAL

This Table illustrates where outpatient clinics are held and where day surgery and major surgery is undertaken in Kent and Medway.

Hospital Site	Major Surgery	Day Surgery	Out patients	Diagnostics	Comment
<b>EKHUFT - KCH</b>	Yes	Yes	Yes	Yes	
<b>EKHUFT - WHH</b>	No	No	Yes	No	
<b>EKHUFT - QEQM</b>	No	No	Yes	No	
<b>MFT - MMH</b>	Yes	Yes	Yes	Yes	OP also at Maidstone & Sheppey and
<b>MTW - Tunbridge Wells Hospital</b>	No	Yes	Yes	Yes	Surgeon joint appointment with
<b>MTW - Maidstone Hospital</b>	No	No	Yes	No	
<b>Dartford &amp; Gravesham - DVH</b>	No	? Yes	Yes	Yes	Surgeons joint appointment with

Table 3

#### 4.7 Emergency Pathway of Care

Patients may present as an emergency either via ambulance or through self-presentation to the emergency department. In general, ambulances will take patients to the closest hospital, which may then require an onward transfer to a hospital providing vascular surgery.

Following emergency surgery patients recover in the hospital in which they had their surgery. They will then be discharged home or to a community provider (if further rehabilitation is required or if there are further co-morbidities or social issues). Following discharge they will receive ongoing care/monitoring at their most local hospital that provides vascular service (hub or spoke).

## OFFICIAL

Patients in Kent and Medway who call an ambulance in an emergency will generally be transferred to the nearest vascular surgical site that has an available bed. The Ambulance Trust may take the patient to the nearest ED unit for stabilisation and assessment before transferring to the arterial centre depending on local protocols.

For surgical emergencies it is usual practice for East Kent residents to be transferred to Kent and Canterbury Hospital in Canterbury and West and North Kent residents to be transferred to Medway Maritime Hospital in Gillingham.

Patients from some parts of West Kent, in particular Tunbridge Wells, Tonbridge and Sevenoaks and patients from the North Kent area around Dartford and Gravesham will be transferred directly to St. Thomas' Hospital

If a patient is already at The William Harvey Hospital or Queen Elizabeth the Queen Mother Hospital in East Kent they will be transferred to the EKUHFT site for emergency surgery.

Patients already at Maidstone Hospital will be transferred to Medway Hospital.

Patients already at Darent Valley Hospital or Tonbridge Hospital will be transferred to St Thomas' Hospital.

The South East London vascular surgery network is now established and is in the final stages of implementation which will be completed this year (2015). This will result in all referrals being assessed and, if appropriate, undergo surgery through the MDT at St. Thomas' Hospital.

The Kent activity is undertaken through a Service level Agreement (SLA) between Maidstone and Tunbridge Wells NHS Trust and St.Thomas' and Dartford and Gravesham NHS Trust and Guy's and St. Thomas Hospital Foundation Trust. This includes diagnostics, outpatient clinics and day surgery in Kent and London, as required and in patient surgery at St. Thomas' Hospital.

The London providers also undertake fenestrated grafts for complex aneurysms for all Kent and Medway residents and provide clinical advice and support to the Kent and Medway units as required.

### **Guy's and St Thomas' Hospital Foundation Trust**

Guys and St. Thomas' Hospitals Trust are fully compliant with the national specification and Vascular Society guidance.

Currently there is:

- One consultant vascular surgeon joint appointment at MDT with another being actively considered.
- Two consultant vascular surgeon joint appointments at D&G.

This SLA operates under a hub and spoke network model.

For residents in the Tunbridge Wells and Tonbridge area they may not meet the recommended of one hour emergency travel time when travelling to St. Thomas'.

## OFFICIAL

**King's College Hospital Foundation Trust**

Kings College Hospital Trust currently undertakes a number of core Index procedures for resident of Kent. This is due to historical referral pathways. This will change as the SE London network is fully established and all arterial surgery is undertaken at St Thomas'.

**4.8 Referral Pathways**

Previous Kent and Medway strategic planning reviews identified the two current vascular surgical sites, MFT and EKHFT as the centres for the Kent and Medway population. Practice has demonstrated that a proportion of the total Kent and Medway surgical activity has flowed into the London hospitals rather than MFT or EKHFT since 2011.

It is not possible to definitively determine the reason for the current referral pathways. They will include patient choice, GP referral choice, historical referral patterns, clinical relationships, visiting consultant arrangements and joint appointments.

These patient flows predominantly relate to patients living in and around Tonbridge, Tunbridge Wells, Sevenoaks, Dartford and Gravesham (see map –page 10).

**5 Core Information and Standards****5.1 National Service Specification**

The National Specification for Vascular services (2013/14) notes that the overarching aim of elective and 24/7 emergency vascular services is to provide evidence-based models of care that improve patient diagnosis and treatment and ultimately improve mortality and morbidity from vascular disease.

Key features of the national specification include:

- All Trusts delivering vascular services must belong to a provider vascular network
- Arterial surgery should be delivered in an arterial centre
- The pathway for vascular services to include; Diagnosis /Assessment /Outpatient activity / In patient activity / Day case activity / Rehabilitation care.
- Non arterial surgery and day care should receive specialist vascular care locally with agreed protocols including emergency transfers to the arterial centre.
- Adequate population volumes; A minimum population of 800,000 would be appropriate but for a world class service a larger catchment area will be required.
- Adequate volumes of core Vascular procedures.( > 60 AAA procedures, > 50 Carotid Endarterectomies and commensurate lower limb procedures)
- 24/7 arterial surgery and vascular interventional

## OFFICIAL

- 24/7 Interventional radiology available
- Acceptable on call rota requirements, ie no less than 1;6.
- A minimum of 6 Arterial surgeons and Interventional radiologists..
- Provision of Vascular surgery by specialist vascular surgeons.
- Provision of Vascular Interventional Radiology by specialist IR consultants.
- Provision of Vascular service by a specialist Multi disciplinary team.

## 5.2 The Vascular Society

The Vascular Society has published guidance on the Provision of Vascular services (2012). The primary objective of the society guidance is to *“provide all patients of vascular disease with the lowest possible elective and emergency morbidity and mortality rates in the developed world. This will be achieved by modernising services to deliver world class care from a smaller number of high volume hospital sites.”*

Key recommendations of the Vascular Society guidance include:

- Recognition that It is no longer acceptable:
  1. For emergency vascular care to be provided by generalists who do not have a specialised elective vascular practice.
  2. To provide elective or emergency vascular cover outside a fully centralised service or a formalised modern clinical network with a designated single site for all arterial interventions providing a 24/7 on-site service.
  3. For the vascular specialist to be providing emergency general surgical cover. In addition, vascular surgeons should not be expected to provide elective general surgical services. (Occasionally some surgeons will undertake specific procedures to maintain competencies directly related to local service needs, but this should be the exception.)
- Networks, involving arterial intervention at more than one site, often result in a reduction in the quality of care and increased mortality for patients in out of hours periods. For this reason, current strategies for the provision of vascular care require that all arterial interventions should be performed on a larger volume hospital site, with intervention provided at these hospitals by vascular surgeons and interventional radiologists from both the central and network hospital sites. This allows for 24/7 patient care and the expeditious treatment of any complications which may occur.
- Services should be organised in a model that allows reasonable elective activity alongside acceptable on call consultant arrangements. This should result in small units creating a modern clinical network where a designated single centre performs all elective and emergency arterial interventions.

## OFFICIAL

- Facilities must be set up for 24/7 provision, supported by 24/7 critical care, dedicated vascular wards and endovascular theatres.
- Minimum procedure volumes are recommended; > 60 AAA procedures per unit with a minimum population of 800,000. Minimum 10 per surgeon.
- Hospitals providing vascular services should know and audit their AAA mortality aiming for elective mortality of 3.5% ( end of 2013) and should regularly review the mortality morbidity rates of the Specialists.
- Specialists undertaking aortic interventions should submit their activity to the National Vascular Register
- Specialist nursing care of vascular in-patients , combining aspects of general surgical nursing, critical care, limb and wound assessment, tissue viability, wound care, rehabilitation, care of the disabled and care of the elderly.
- A ward dedicated to the care of vascular patients is essential to ensure an appropriate skill mix of nurses who have been specially trained in the care of vascular patients
- Emergency assessment and treatment should be available within one hour of travel to a recognised vascular unit in most locations in the UK. 95% of patients should be triaged, referred and have arrived at the vascular unit within two hours arrival at the spoke hospital.

The full document can be found at:

<http://www.england.nhs.uk/wp-content/uploads/2013/06/a04-spec-vascu-adult.pdf>

### 5.3 Core Index Procedures

There are many conditions that require the services of a vascular surgeon and/or an interventional radiologist.

A core set of index procedures for vascular surgery have been agreed and are:

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

As well as the core index procedures the review is looking at key interdependencies, in particular with emergency departments, renal services, and lower limb ischaemia management. However central to promoting quality and sustainability it is important to understand the number of core procedures being delivered at each surgical site.

Data re the Core Index Procedures is presented from three data sources – 2013/14:

## OFFICIAL

- Data submitted by individual surgeons to the National Vascular Registry (NVAR)
- Secondary Uses Service (SUS); this is the single, comprehensive repository for healthcare data in England and is submitted by each trust
- The Trust's own data.

The data capture was agreed by the lead clinicians at MFT and EKHUFT and the data lead for the programme board and accepted by the Programme Advisory Board. The national specification requires a minimum number of procedures per centre and per consultant for AAA procedures.

- Abdominal Aortic Aneurysms 60 per annum.
- Carotid Endarterectomies 50 per annum.
- Lower limb bypass Commensurate numbers
- Per consultant per year 10 AAA emergency and elective procedures; commensurate lower limb and carotid procedures.

#### Kent and Medway Activity 2013/14.

Total activity for Kent and Medway 2013/14:

EKHUFT and MFT; 591 Others; 306 Total Kent and Medway activity; 897

Index Procedure	East Kent University Hospital FT			Medway FT		
	NVAR	SUS	Trust	NVAR	SUS	Trust
Carotid Endarterectomy	66	60	61	28	29	28
AAA Electives , open	23	tbc	tbc	27	28	26
EVAR	49	57	57	21	22	22
AAA Non elective, open	5	4	4	12	11	13
<b>Total AAA's</b>	<b>77</b>			<b>60</b>		
Leg bypass		69	69		73	74
Major amputation		51	53		52	52
Minor amputation		68	68		47	48
<b>Total core index numbers</b>	<b>331</b>			<b>260</b>		

Table 4

## OFFICIAL

**Kent and Medway- Out of Area Activity – 2013/14**

<b>Index Procedure</b>	<b>Guys and St Thomas'</b>	<b>King's College Hospital</b>	<b>Brighton and Sussex</b>	<b>Others</b>
Carotid Endartarectomy	18	12		15
AAA Elective open	4	1		
EVAR	49	1	1	
AAA Non elective open	4			
<b>Total AAA's</b>	<b>57</b>	<b>2</b>	<b>1</b>	
Leg bypass	84	8	4	4
Major amputation	12	12		9
Minor amputation	9	11		48
<b>TOTAL</b>	<b>180</b>	<b>45</b>	<b>5</b>	<b>76</b>

Table 5

**5.4 Reviews and Literature**

A number of vascular reviews have been undertaken across England and Wales in recent years.

The key driver behind the reviews have related to the publication of the national specification, the Vascular Society guidance and the increasing evidence of the relationship between high volumes, specialist skills and improved patient outcomes.

These include:

- Yorkshire and Humber NHS 2010.
- NHS England South / NHS Sussex 2011
- NHS Wales, 2012.
- NHS England South/NHS Bath, NE Somerset and NHS Wiltshire 2013

**Key recommendations from the above reviews include;**

Delivery within a network model with centralised arterial surgery.

- Adequate population volumes.
- Adequate intervention volumes.
- 24/7 access.
- Specialist Surgical and IR consultants.

## OFFICIAL

The drivers of the reviews all relate to improving patient outcomes and delivering quality through delivery of the core standards and the ability to deliver resilient sustainable services for the future.

## 6 Additional Information

The key for system / service resilience is to actively identify and manage risks that could disrupt normal service (NHS Commissioning Board, 2013). In the context of vascular surgery, there is a need to ensure sufficient capacity (both physical resources as well as human resources) is available and systems are in place to secure the best patient outcomes and experience even in difficult circumstances.

### 6.1 The Case for Concentrating In-Patient Surgery

The relationship between the volume of cases undertaken and the outcomes achieved has been demonstrated most clearly for elective abdominal aortic aneurysm repair.

A meta-analysis<sup>1</sup> based on over 400,000 elective AAA repairs world-wide concluded in favour of higher volume centres (Holt, Poloniecki, et al., 2007). More recent research by Holt et al. also found an 8.5 per cent mortality rate in lower volume centres compared to 5.9 per cent in higher ones (Holt, Poloniecki, & al., 2010). Holt et al have also found mortality differences between hospitals in the lowest and highest volume quintiles of providing ruptured abdominal aortic aneurysm repair of up to 24% (Holt, Karthikesalingam et al., 2010).

There is also evidence that similar relationships affect the performance of other vascular procedures including lower limb arterial reconstruction and carotid endarterectomy (Karthikesalingham, et al., 2010; Moxey, et al., 2012).

This indicates that the risk of dying decreases when patients receive their surgery from teams that see higher numbers of patients and it is for this reason the service specification sets a requirement that vascular networks must serve a minimum planning population of 800,000.

### 6.2 New Technology

A major driver for change has been the introduction of minimally invasive endovascular techniques (i.e. the use of interventional radiology to treat arterial disease thereby avoiding open surgery and reducing recovery time). Such techniques have reduced mortality, morbidity and hospital length of stay (EVAR1 Trial, 2005), but they require specific infra-structure, such as hybrid operating

---

<sup>1</sup> In statistics, a **meta-analysis** refers to methods focused on contrasting and combining results from different studies, in the hope of identifying patterns among study results, sources of disagreement among those results, or other interesting relationships that may come to light in the context of multiple studies.



## OFFICIAL

theatres that are equipped with advanced medical imaging devices (CT, MRI), which are dependent on an adequate case volume (higher number of patients) to ensure their safe introduction.

Evidence suggests that high volume centres are more likely to adopt new technologies (Dimick & Upchurch, 2008) and NHS England is keen to foster innovation and constant improvements in how we deliver healthcare.

Hence, an arterial centre needs to provide complex aortic endovascular procedures from a dedicated vascular hybrid theatre supported by 24/7 vascular surgery and 24/7 interventional radiology, bringing together the expertise and experience of key clinicians in these techniques to provide both elective endovascular procedures and emergency ones, such as endovascular repair for ruptured abdominal aortic aneurysm. This arrangement has the potential to significantly improve length of recovery and reduce risk of surgical complications and risk of mortality as compared to conventional open repairs

### **6.3 Travel - The impact of Travel Distance and Times:**

Kent and Medway is centrally well served by three motorways:

- The M2 serving the East and North of the county
- The M20 serving the West and North/West of the county
- Part of the M25 across the North West, serving the road networks.

Public transport routes are generally good with rail services covering most of the region. There are examples of rural road access in particular across the west and south west of the county increasing both ambulance and public transport times.

The VS recommendation is that 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 mapping of emergency travel times shows that all Kent and Medway residents are able to access the two current providers within the recommended 60 minutes. London hospitals are able to receive patients within the hour if they live in the far north and North West of the county. Travel times and distances are always an understandable concern for patients with some perceptions that travelling further for surgery will put patients at greater risk.

A number of studies have been published reporting no [statistically] significant impact of distance on mortality for vascular surgery.

For example, Cassar et al. studied nearly a decade of records from Raignor hospital in the Scottish highlands and reported no significant difference in the community mortality rate after ruptured aortic aneurysm between patients living within or further than 50 miles from the hospital (Cassar et al., 2001).

Several further studies attempting to determine the impact of distance on mortality have showed similar results.

Butler et al. (1978) studied the impact of regional hubs delivering vascular surgery on mortality outcomes and found no significant difference in operative mortality following

## OFFICIAL

ruptured abdominal aortic aneurysm (RAAA) between patients admitted from the local catchment area (58%) and those transferred from other centres for surgery (54%). Similar results were reported in studies by Fielding et al. (1984), D'Sa Barros (Barros, 1990), van Heeckeren (1970), Amundsen et al (1989), Farooq et al. (1996) amongst others, all reporting that centralisation does not prejudice the community mortality outcome for RAAA.

In terms of patients attitudes towards travel for specialist services, an extensive study by Holt et. al (2009) reported that 237 of the 258 patients questioned (92 percent) stated a willingness to travel for at least one hour beyond their nearest hospital. 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 concentrating vascular surgery in regional centres to achieve the desired mortality outcomes.

The All Party Parliamentary Group Review of vascular services ( March 2014) considered the interrelationship with lower limb amputations and foot care and noted as good practice for vascular centres the need to:

- .Improve use of MDT in vascular networks.
- To establish vascular centers of excellence that can provide 24/7 care.
- To publish amputation rates and outcomes

## 6.4 Acute Hospital Providers

Across Kent and Medway there are four acute Hospital Trusts with a total of seven sites:

- Dartford and Gravesham NHS Trusts
  - Darent Valley Hospital. (DVH) - Dartford
- East Kent University Hospitals NHS Foundation Trust (EKUHFT)
  - Kent and Canterbury Hospital (KCH) - Canterbury
  - Queen Elizabeth Queen Mother Hospital (QEQM) - Margate
  - William Harvey Hospital. (WHH) - Ashford
- Maidstone and Tonbridge Wells NHS Trust (MTW)
  - Pembury Hospital – Near Tunbridge Wells
  - Maidstone Hospital - Maidstone
- Medway NHS Foundation Trust (MFT)

Two of the sites, MFT and EKUHT provide vascular surgical services (as arterial centres) and Kent and Medway residents also access two central London hospitals (Guys and St. Thomas' Hospital Foundation Trust and King's College Hospital Foundation Trust).

## OFFICIAL

Dartford and Gravesham NHS Trust at Darent Valley Hospital and Maidstone and Tunbridge Wells NHS Trust at Tunbridge Wells Hospital, Pembury are also providing a range of vascular care including small numbers of day surgery through joint appointment specialist vascular consultants.

## 6.5 Health Needs Assessment.

### **The current K&M population is 1,747,000. (2014 CCG profiles)**

The Kent and Medway population currently grows by 8%, in line with nationally,

- Population projections for the period 2013 to 2020 show the greatest increase in the older age bands;
  - 17% within the 65-74 age band
  - 22% within the 75-84 age band
  - 29% within the 85 plus age band
- There are some key housing developments anticipated. This includes the garden city development at Ebsfleet in the North of the county with a maximum of 10,000 houses planned.
- There is also a planned theme park development due to open in 2020 on the Swanscombe Peninsula, expected to bring 27,000 new jobs and families to the area.
- The population projections relating to these developments are currently being worked through however this will be more relevant in the younger age groups ie below 65 years of age.
- The recommended population base (National Service Specification and Vascular Society guidance) needed for an adequate number of cases for a viable center is 800,000 and the Vascular Society has indicated that this will increase to between 1 million and 1.2 million within the next few years.
- Allowing for the proposed housing expansions in North Kent are anticipated to see a 26% population growth for the DGS population. This is forecast to the younger age group.
- Currently 26% of the total Kent and Medway activity flows into London.

## 7 Key Findings

### 7.1 Self-Assessment of Current Kent and Medway Providers.

EKHUFT and MFT completed an assurance self-assessment in December 2014, these illustrate compliance across a number of the standards within the specification, including outcome measures.

## OFFICIAL

The key issues noted in the assessments were:

- Mortality and outcomes identified as within the national requirements; The one exception relates to Lower Limb bypass. (Further work could be considered to understand the relationship between the low number of Carotid Endarterectomies and the 30 stroke mortality rates.)
- The numbers of Core Index Procedures were borderline in most cases. Carotid Endarterectomies low in MFT
- The population numbers did not meet the requirement for either unit.
- MDT cover is difficult to achieve over 7 days, particularly in relation to nursing.
- 24/7 consultant cover, Surgeons and Interventional Radiologists.
- Consultant rotas , concerns re sustainability currently; EK 1:4 and MFT 1:6
- There has been no self-assessment undertaken by either MTW or DVH

As can be seen the key issues for both Trusts relate to low/borderline volumes and across Kent and Medway low workforce numbers and the ability to deliver 7 day specialist services. Neither if these can be resolved internally by the individual Trusts. .

## 7.2 Activity Data

The data analysis of the index procedures illustrates that the current providers are achieving the total AAA volumes although these are generally borderline.( in some instances only just) but not the Carotid Endarterectomies at MFT.

The Trusts assurance submission in December 2014 show mortality rates at the 3.5% recommended for 2013 and are within the tolerance of the morbidity targets with the exception of lower limb amputations.

### In summary:

- The current total Kent and Medway activity is borderline for meeting the minimum requirements for AAA procedures.
- Carotid Endarterectomy levels at MFT are routinely below the minimum requirements
- Carotid Endarterectomies have historically been undertaken at MTW and D&G but now confirmed this has ceased.
- Mortality rates are within the 2013 recommended level of 3.5%, further improvements are likely to be required in the future.

Currently a significant proportion of activity from north and west Kent goes to Guys and St Thomas' hospital with 75 interventions ( Carotid endarterectomies / AAA's) as compared with 88 at MFT and 143 at EKHUFT. Repatriation of this activity could give some stability to the existing Kent and Medway providers in particular MFT.

## OFFICIAL

Review of commissioning intentions has advised that there is no imperative to alter patient flows or impact on patient choice.

Patient flows to London may have initially been driven by historic consultant relationships; however there is now a formal pathway in place through a service line agreement between St.Thomas' hospital and D&G and MTW.

### 7.3 Outcomes

Reported outcomes measures lack validity for making comparisons between Trusts and clinicians. It is noted that the data is not statistically significant and that it is an unreliable source upon which to make recommendations. This is why the Vascular Society has focussed on critical volumes of activity as the key quality measure.

It is also important to note that outcomes are increasingly reported by individual vascular surgeons as well as per Trusts and need to be considered within this context. None of the centres providing care to Kent and Medway residents are outliers and there are examples of good performance.

### 7.4 Population Data

The population data illustrates that currently neither arterial centre is meeting the minimum 800,000 requirement.

If all of the west and north population was included then the total would exceed the required 1.600,000 across Kent and Medway ie 800,000 per site.

However the referral flows would suggest that it is unlikely that any of this additional activity would flow to East Kent and therefore there would continue to be one site in K&M not achieving the minimum levels. This could only be resolved by forcing the distribution of some West Kent activity into East Kent.

Repatriation of this activity would require a commissioner led mandate for referral pathways and could not interfere with patient choice to a recognised, compliant provider. The K&M Vascular review will address this issue within the options appraisal process.

The population flowing into London equates to almost 50% of the West Kent population and 94% of the North Kent population (Dartford and Gravesham).

There are clear indications that the minimum population volumes will increase in the near future, likely to exceed 1,000,000 per arterial centre.

### 7.5 Pathway Analysis

Currently there is no vascular network in place for Kent and Medway and the best practice model of a front door access to vascular care is not clear or transparent.

The local pathways to the current Kent and Medway arterial centres are well versed and recognised.

The geography of East Kent naturally drives patients in Thanet and parts of South Kent Coast to the East Kent centre whether for elective or emergency care as

## OFFICIAL

accessing sites beyond is both difficult and outside of recommended one hour travel times.

Historic relationships and current visiting consultants have contributed to a pathway in west and north Kent that engages with Guys and St.Thomas' in London.

There is an SLA in place re both the elective and emergency pathways for patients in Tonbridge, Tonbridge Wells , Sevenoaks, Dartford and Gravesham. This does not appear to be easily recognised and requires clarification and assurance re quality and sustainability.

Nationally In patient surgery accounts for around twenty per cent of activity within the arterial sites. The current numbers of Kent and Medway residents impacted by any potential reconfiguration of Vascular Inpatient services is around 585.

Out patient access is available at both the in-patient sites across Kent and Medway and in London.

## 7.6 Workforce

High quality vascular services are delivered through a wide range multi disciplinary team. This includes specialist consultants, Interventional radiologist, nurses, therapists laboratory scientists and anaesthetists. The Case for Change focuses on the requirement for Consultants, nurses and interventional radiologists.

However in developing options the wider MDT will be fully considered.

Given the range of specialist staff required in Arterial Centers, and the relative shortage in many of these professional areas, the future model of vascular networks needs to have a realistic and deliverable overall workforce plan.

High quality vascular units, that are large enough to provide sub-specialisation and high throughput, are more likely to recruit high calibre staff and improve retention.

with robust workforce plans identified.

## 7.7 Vascular Consultants.

An arterial center (serving a 800,000 population) should have 6WTEs Vascular Consultants, equating to 60-72 PAs of activity.

An individual on the vascular rota, but undertaking little elective work (ie less than 4PA), cannot reasonable be considered a vascular specialist. None of the current consultants in Kent and Medway undertake less than 4PA. All patients referred to the vascular service at MFT and EKHUFT are seen by vascular specialists.

In Kent and Medway there are specific vascular surgical on call rotas in place in both arterial centres. This meets the guidance of 1:6 at MFT and is 1:4 at EKHUFT, this may raise concerns re sustainability across Kent and Medway.

## OFFICIAL

	<b>EKHUFT</b>	<b>MFT</b>	<b>Comments</b>
<b>Pas per individuals</b>	Cons 1; 11.5 Cons 2; 12 Cons 3; 12 Cons 4; 10	Cons 1; 12.5 Cons 2; 12.5 Cons 3; 11.5 Cons 4; 10.5 Cons 3; 8.0	
<b>Retirements due in next five years</b>	2 posts . 1 in 2 years 1 in 2 to 5 years	None anticipated	
<b>Locum in place</b>	Yes, shared with general surgery.	recruited pt time post, June 15	
<b>Dedicated Vascular rota</b>	Yes. 1:4	Yes 1:6	
<b>Dedicated IR rota</b>	Yes	Yes	To confirm ratio and requirement for non vascular pts.
<b>Dedicated vascular ward</b>	Yes	Yes	
<b>Dedicated specialist nurses</b>	Yes, supporting the wards, Consultant clinics and specialist nurse Out Pt clinics	Yes detail TBC	No Specialist nurses covering the weekends.

Table 6

The specification requires 10 AAA elective and emergency procedures and commensurate other core index procedures to be undertaken by individual consultants per annum. Not all consultants across Kent and Medway are compliant with this recommendation.

No Vascular patients are seen by non Vascular specialist consultants in Kent and Medway.

## **7.8 Vascular Interventional radiologists.**

## OFFICIAL

Vascular Interventional radiologists are a core component of the vascular service, achieving a sustainable vascular rota whilst not impacting on the wider non vascular interventional radiology is difficult. Both Kent and Medway providers have specialist vascular Interventional radiologists, these posts also support non vascular IR.

\*A more detailed review of the impact on interventional radiology is underway as part of the review.

## **7.9 Vascular Nurse Specialists.**

Vascular Nurse Specialists are increasingly important in the delivery of vascular services, especially in Non Arterial Centres. VSGBI 2014 specifies that each NAC should have at least one VNS dedicated to covering the work at each site, in addition to those required at ACs. The role will need to be reviewed and developed to support consultant colleagues in the vascular network, and the VNSs will be the principle point of liaison in an effective network model.

The current Kent and Medway vascular centres both have specialist vascular nurses, they do not provide a service over the weekends.

## **7.10 Vascular Multi Disciplinary Team.**

The wider Vascular team needs to be considered within the context of the review this will include;

- Vascular Multi Disciplinary team Vascular technologists and scientists
- Diabetic and non-diabetic podiatrists and diabetic foot care MDTs (19,20).
- Radiographers
- Physiotherapists
- Occupational Therapists
- Critical Care Paramedics
- Pharmacists



## OFFICIAL

## 7.11 Travel Times

Travel times mapping for emergency access illustrates that the current two sites are able to meet their existing patient flows within the recommended one hour travel time. Both MFT and EKHUFT are accessible to all K&M residents within 45 minutes by emergency conveyance. The London sites are only accessible within an ambulance travel time of one hour in some parts of north West and far north Kent.

The VS recommendation is that 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.

## 7.12 Critical Co-dependencies

Vascular patients are often critically ill, can have multiple other medical conditions, and need timely access to specialised care from a wide range of other clinical services. It is vital to understand the implications of all these clinical co-dependencies in the safe planning of inpatient care of arterial, and non-arterial centres.

The SEC 'Clinical Co-dependencies of Acute Hospital services '2014 suggest which services should be collocated and/or have close visiting relationships.

Key co-locations for vascular services include;

Interventional Radiology, Accident and Emergency, Critical care, general surgery and acute/ general medicine, hyper acute stroke unit and acute cardiology. The key diagnostics are require to be co-located ie; MRI, CT, X ray and ultra sound. Also advised is colocation with Physiotherapy, general anaesthetics and pathology services.

The Vascular Society guidance advises;

- Co-location with interventional radiology. The impact of any reconfiguration must include IR and an understanding and safe clear pathways for management of non vascular IR
- Interventional radiology (IR) is a critical service for delivering diagnosis and treatments to vascular patients, working in partnership with the vascular surgical service. There are significant issues relating to the centralising of IR and delivering 24/7 IR rotas, including manpower, and the sustainability of non-vascular IR services in non-arterial centres, which need to be recognised and addressed
- The Vascular Society guidance and the SEC Co-dependencies both report advise that it is desirable to locate alongside Accident and Emergency departments and a robust critical care unit. External clinical advice to the review notes that the above is desirable but not essential. However a major trauma unit must have vascular services available on site. Where there is no co-located ED then there must be clear protocols and pathways in place to manage vascular

## OFFICIAL

patients. This must include clinically agreed safe pathways for patient's who present with abdominal pain and collapse covering timely triage and transfer protocols.

- Consideration of the impact on the education and training needs of vascular trainees must be fully considered.
- If a renal unit is present within a site then vascular services should be co-located.
- It is desirable for admitting stroke units to have easy access to vascular services including IR.
- For specialist services such as renal, Stroke and Cardiac close working relationships must be in place and evident.

### 7.13 Diabetic Care

Current performance for diabetes related amputations shows that four of the eight Kent and Medway CCGs are above the national average.(0.9) ranging from between 1.1 to 1.6.

The establishment of robust multidisciplinary foot care teams, universally across Kent, Surrey & Sussex is becoming an imperative to ensure that changes through, vascular reconfiguration, do not increase the number of amputations across Kent, Surrey & Sussex due to poor service access.

Specialised Commissioning are being asked, by the Strategic Clinical Network Diabetes Clinical Advisory Group to ensure consideration and clear planning is undertaken to ensure that access to vascular services within 24 hours for an emergency foot problem when vascular reconfiguration plans are developed and implemented.

### 7.14 National Specification – Kent and Medway Position

#### Summary of findings

<b>Key indicators/measures</b>	<b>Current K&amp;M position</b>	<b>risk</b>
1 hour travel time for emergency AAA/ 2 hour 95% target for triage, transfer and arrive	Current sites meet this across K&M	London hospitals only meet this in some parts of K&M
Population 800,000	Neither Trust meets this currently	Repatriating west and north Kent activity required. This will impact on patient choice and will still leave EKHUFT below target.

## OFFICIAL

Total index procedures	AAA's achieved CE's below at MFT	Achievement is generally borderline, increasing the risk of ad hoc practice
24 hr consultant cover	Current sites meet this	Pressure on rotas esp EK. Retirements due in the next 2 to 5 years , concern raised re ability to recruit under current configuration.
Vascular network	Not currently in place	Impact on workforce planning/succession plans. Potential impact on the ability to enhance service provision in relation to innovation
Mortality rates	At 2013 recommended levels 3.5%	Unclear re further improvements required.
Morbidity rates	Generally good , only exception lower limb amputations	Amputation outcomes in K&M poor. Need to understand the impact of low rates of Carotid Endarterectomies on the 30 day stroke mortality rates.
Nursing cover	Not 7 day cover	Potential impact on the ability to develop practice

Table 7

**The findings confirm that:**

1. The current arterial centres in K&M are not compliant with the national specification and VS best practice guidance.
2. It is apparent that the pathways of care are not clear across Kent and Medway particularly for residents in the west and north of the county.
3. The reported patient outcomes are good/in line with the national average (currently this has not been evaluated at individual consultant level or in relation to interdependent clinical pathways ie diabetes)
4. The current Kent and Medway arterial centres do not fulfil the requirements in relation to population numbers and the volume of core index procedures is not achieved on both sites
5. Access to the two Kent and Medway centres is within the required one hour emergency travel time for the existing patient flows.
6. Access to St.Thomas' hospital in London is outside of the one hour recommended travel time for residents in Tunbridge Wells and Tonbridge.

## OFFICIAL

7. The workforce requirements are not fully met across Kent and Medway with corresponding pressures on on-call rotas and 24/7 nurse cover.
8. There is concern re the current and future sustainability of the workforce rotas, this will be more pressing in the next 2 to 5 years as retirements come into play.
9. There is currently no vascular network in place in Kent and Medway, pathways will not always be clear and transparent, clinical practice may not be consistent or develop effectively.
10. Concerns have been raised re the financial sustainability of the model; the current level of activity cannot sustain the required workforce levels.
11. Current carotid Endarterectomy surgery practice at non arterial sites is non-compliant with the specification and VS guidance; need to confirm this will stop.
12. Maintaining the staffing levels and the cost related to the development of new innovation and technology in all existing vascular providers would require a significant amount of investment from both the providers and NHS England.
13. The risk of occasional practice may increase, with none of the current providers covering the minimum population base of 800,000 people needed to ensure teams treat sufficient numbers of cases to maintain and develop their skills..
14. Re-organisation of vascular services into networks enables NHS England to commission more resilient and sustainable vascular services.
15. Vascular services working together in networks are able to enjoy the benefit of combining existing vascular and other clinical specialists from all the existing providers within the network so that services can be planned across providers.
16. Sharing on-call rotas would address the shortage of appropriately skilled staff.
17. Vascular surgery trainees could be strategically deployed in the vascular centres to ensure they are exposed to the extensive range of vascular conditions to maximise their learning experience.
18. Interventional Radiology is a key component of the service and needs to be fully explored when considering the planning of Vascular services.
19. A detailed workforce plan across all vascular disciplines, including the impact of and on trainees is required.
20. Need to reflect the K&M strategic picture understanding current financial pressures and Quality concerns.

## 8 Proposal Benefits

The benefits we expect for patients are:

## OFFICIAL

- Continued Improvement of the clinical outcomes, in particular lower limb amputation, working towards achieving the best rather than average performance.;
- Development of skills and expertise so that patients are better able to manage their condition and recovery;
- A transparent and effective vascular network, that benefits from shared clinical expertise and clear effective pathways of care..
- Increased access to outpatient clinics in spoke units.
- Improve sustainability of the existing vascular services
- Clear lines of accountability and clinical governance across the network that puts clinicians and patients at the heart of performance monitoring and service development.
- A sustainable specialist workforce; Consultant surgeons, IR Consultants and specialist nurses and the wider Multi disciplinary team..
- Standardised methods and promotion of best practice across the clinical teams;
- A more productive and efficient service (minimisation of duplication and waste);
- Improved opportunities for training, research and innovation;
- Reduced length of stay for patients and more effective pathway links with community providers to support timely repatriation of patients following surgery.

**Conclusion:**

- The Case for Change illustrates that the current Kent and Medway provision does not fully meet the national specification or Vascular Society guidelines.
- The review recommends that achieving the national standards and VS guidance should be a minimum requirement.
- There should be an ambition to commission for excellence over and above specification; this includes the delivery of excellent sustainable services that enable all K&M residents to benefit from excellent outcomes. To ensure a high performing workforce attracting motivated and innovative practitioners who aim to deliver outcomes at the highest level.
- The Case for Change recommends developing an options appraisal that can consider fully the possible options to make the required changes for both compliance and improved quality.

## OFFICIAL

- The appraisal process needs to consider all influences and impacts not only to deliver the appropriate recommendations but to ensure sustainability and improvement for both vascular care and other key clinical specialities.
- Local and external clinical leads will be required to ensure that the solutions are clinically safe, viable and equitable across Kent and Medway.
- The development of a network will be required and needs to ensure that all elements of the pathway are considered and fully understood.
- Public engagement and feedback will be central to the development of the options appraisal.

## 9 Next Steps

- The Case for Change is reviewed at the Programme Advisory Board for agreement.
- The Case for Change is reviewed by the SEC Clinical Senate and amended accordingly.
- Listening events take place through July and August which will raise the public awareness of the case for change and reflect any concerns/queries going forward.
- Development of solutions will involve public engagement and local Kent and Medway and external clinical leadership in a sequence of listening events and focus groups and through the Clinical sub group of the programme advisory Board. This will include the current vascular leads, the wider Multi disciplinary team, clinical commissioners and expert advisors.
- The review will develop a preferred option for approval by NHS England South, Specialised Commissioning. This appraisal process will consider key issues, variables and impacts.
- These will include;
  - Understanding population growth and changes
  - The Vascular pathway from symptom to rehabilitation
  - Key interdependencies; Interventional radiology, Emergency departments, diagnostics, other clinical specialities.
  - Workforce issues and interdependencies
  - Repatriating patient flows.
  - Issues identified through public, clinical and stakeholder engagement
- The Programme Advisory Board will oversee the development of solutions to the issues within the Case for Change to enable the sustainable delivery of vascular services to Kent and Medway residents in line with national best practice.

## 10 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	<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.

## OFFICIAL

EVAR	See Abdominal aortic aneurysm repair.
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.
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.



## OFFICIAL

---

**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.





# **Vascular Surgery Review for Kent and Medway**

## **Decision Making Process and Decision Tree Criteria**

# **Vascular Surgery Review for Kent and Medway**

**Subtitle (please add or delete this text)**

Version number: 9

First published: 11/03/15

Updated: (only if this is applicable)

Prepared by: Oena Windibank

Classification: OFFICIAL

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.

<b>Contents</b> .....	<b>Error! Bookmark not defined.</b>
1 Introduction.....	4
2 The Decision Making Process .....	4
3 Case for Change .....	4
4 Decision Making Process .....	5
4.1 Stage 1 – The Long List .....	5
4.2 Stage 2 – The Long List Revised to the Short List .....	5
4.3 Stage 3 – Additional Information – Review of Short List.....	6
4.4 Stage 4 – The Preferred Option .....	7
4.5 Stage 5 – The Provider – Initial Responses .....	7
4.6 Stage 6 - Provider Business Case.....	8
5 Registered Options.....	10
5.1 Option 1 – Two Kent and Medway Hubs with Current London Pathway .....	10
5.2 Option 2 – No Kent and Medway Hubs .....	10
5.3 Option 3 – Two Kent and Medway Hubs without London .....	10
5.4 Option 4 – One Kent and Medway Hub, no London Pathway .....	10
5.5 Option 5 – One Kent and Medway Hub with London Pathway .....	10
5.6 Option 6 - Networked Kent and Medway Hubs, no London Pathway .....	10
5.7 Option 7 - Networked Kent and Medway Hubs with London Pathway.....	11
6 Appendices.....	12
6.1 Appendix 1 – Member of the Clinical Sub – Group.....	12
6.2 Appendix 2 - CCG Populations (2014/15) .....	13
6.3 Appendix 3 – Core Index Procedures 2013/14.....	13
7 Glossary to be completed.....	

## 1 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.

## 2 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

## 3 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 19<sup>th</sup> 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 from 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.

## **4 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:

### **4.1 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)

The clinical group will amend and develop this.

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.

### **4.2 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.

### **4.3 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.

### **4.4 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.

#### **4.5 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.
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. .

## **5 Registered Options.**

Further work will be undertaken through the Clinical group to confirm/amend as appropriate.

### **5.1 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).

### **5.2 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.

### **5.3 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.

### **5.4 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.

### **5.5 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.

### **5.6 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.

## **5.7 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.

## 6 Appendices

### 6.1 Appendix 1 – Member of the Clinical Sub – Group

<b>Name</b>	<b>Position</b>	<b>Organisation</b>
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 Heath, Specialised Commissioning	NHSE (south)

## 6.2 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
<b>Total Population</b>	<b>1,749,500</b>

Table i

## 6.3 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

## OFFICIAL

Leg Bypass	73	69	84	16
Major Amputations	52	51	12	21
Minor Amputations	47	68	9	59
<b>TOTAL</b>	<b>260</b>	<b>331</b>	<b>180</b>	<b>126</b>
<b>All activity for Kent and Medway population</b>			<b>897</b>	



## 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	<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.

---

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.