



# **Kent and Medway Vascular Surgery Programme:**

## **Service Development Business Case 2020**

## SERVICE DEVELOPMENT BUSINESS CASE

<b>Title:</b>	<b>Kent and Medway Vascular Surgery Programme</b>		
<b>Care Group:</b>	Surgery and Anaesthetics Care Group	<b>Specialty/ Department:</b>	Vascular Surgery
<b>Project Leads:</b>	EKHUFT - Tom Lovegrove-Bacon K&M CCG – Simon Brooks-Sykes MFT – Natalie Aluwalia & Stewart Nesbit Specialised Commissioning – Fiona Hughes & Susan Woollard	<b>Financial Leads:</b>	EKHUFT - Elisa Llewelyn K&M CCG – Ada Foreman MFT – Marijana Pomerantz & Mark Flannery Specialised Commissioning – Sonia Wells
<b>HR Partner</b>	Karl Woods		

### Section 1 - Executive Summary

<b>1.</b>	<b>What is the issue/s that needs to be resolved? (Include Timescales)</b>
	<p>Vascular Surgical services in Kent and Medway are currently provided by two NHS Trusts: Medway NHS Foundation Trust and East Kent Hospitals University NHS Foundation Trust. Questions were raised regarding the sustainability of the service following the publication of the National Service Specification in 2013.</p> <p>Vascular Services are commissioned through NHS England by Specialised Commissioning under the Service Specification 170004/S Specialised Vascular Services (Adults). Whilst these services are commissioned by NHS England, both CCGs and Specialised Commissioning pay for elements within the patient pathway.</p> <p>This business case provides current contracted levels of inpatient Vascular activity and finances across commissioners. It will be a requirement that any resulting transfer of activity and finance will need to be prepared and agreed separately between commissioners.</p> <p>In March 2013, the National Service Specification (NSS) for Specialised Vascular Services was issued for adoption from October 2013. The report states "There is a strong evidence base that suggests that mortality from elective aneurysm surgery is significantly less in centres with a high caseload than in units that perform a lower number of procedures".</p> <p>In December 2014, NHS England Specialised Commissioning initiated a review of the vascular service provided by the current providers in Kent and Medway. The 2014 review was followed by the publication of a detailed Case for Change for Vascular Surgery in Kent and Medway<sup>1</sup> which articulated the need to reconfigure the local vascular services across Kent and Medway in order to meet the NSS and Vascular Society's Provision of Vascular Surgery standards (VS POVs).</p> <p>The main issues that were identified by the review included:</p> <ul style="list-style-type: none"> <li>• The lack of a vascular network across Kent and Medway.</li> </ul>

<sup>1</sup> See appendix 1

- The number of people served by both East Kent Hospitals University NHS Foundation Trust (EKHUFT) and Medway NHS Foundation Trust (MFT) is below the 800,000 minimum which is recommended by the Vascular Society. MFT serves around 450,000 and EKHUFT serves around 720,000)
- At both trusts, the total number of some of the core index procedures is either borderline or below the recommended numbers.
- The number of consultants is currently lower than required. Consequently, there is concern about being able to staff the vascular surgical and interventional radiology rotas 24/7 at both sites.

Neither hospital was able to fully meet the service specification criteria or achieve the requirements of the VS POVs on its own.

In early 2015, NHS England South (South East) granted derogation (a temporary exemption) to both Kent and Medway Trusts so that they could continue to provide vascular surgical services even though they did not fully meet the national specification (EKHUFT now treats the minimum number of core index procedures). Both Trusts were tasked with working together to find a sustainable, efficient and effective longer-term solution for vascular surgical services.

In 2015/16, further work was undertaken as part of the Kent and Medway Sustainability and Transformation Partnership to plan for the longer-term future of vascular surgical services. This work concluded that in the longer-term (as part of the STP) a single inpatient vascular centre should be created in east Kent. A letter of intent, see appendix 11, was jointly signed by both chief executive officers of EKHUFT and MFT which sets out the principles of a single Kent and Medway vascular network. Such a centre would serve a population of over 1.4 million, would allow the consolidation of skilled staff and resources to achieve the requirements of the national specification and would enable the service to meet the needs of the VS POVs.

In July 2018, NHS England led a further review of vascular services in Kent and Medway and recommended that the arterial hub should be located at Kent and Canterbury Hospital in Canterbury ahead of its final location being determined under the East Kent STP. The GIRFT vascular lead and the Vascular Society of Great Britain and Ireland agreed with this recommendation.

In March 2019, the South East Regional Medical Director and Chief Clinical Information Officer (CCIO) also concluded that the arterial hub should be established at Canterbury. It was acknowledged that whilst the future location of the unit will be determined through the East Kent transformation programme this should not detract from the need to ensure delivery of a high quality, sustainable service in the interim.

EKHUFT has been supporting MFT's inpatient vascular surgical services over recent months as MFT has been unable to provide sustainable on-call rotas within the service. In January 2020, MFT implemented an emergency move of all elective and non-elective AAA surgery to Kent and Canterbury Hospital. This emergency move remains in place and therefore no AAA surgery is currently undertaken at MFT.

This business case articulates the reason why the preferred option for the interim arterial centre should be located at Kent and Canterbury Hospital until such time as the longer-term east Kent transformational programme is implemented.

## **2. What are the options to address the issue/s?**

A number of possible options have been evaluated and this produced a short-list of two options. Following extensive public and patient engagement a detailed options appraisal was undertaken to produce a recommended preferred option. Details of each of the options and the preferred option are outlined in section 3 of this business case.

3.	<b>What is the financial impact of the Options?</b>												
	<p>It is assumed that the clinical and operational model within the preferred Option 5: One Kent and Medway Hub with London Pathway would be broadly similar and therefore it is likely that the revenue costs of providing the model would not vary significantly between the option of whether the interim solution was based at EKHUFT (Option 5A) or at MFT (Option 5B).</p> <p>Medway Maritime Hospital (within MFT) does not have the capacity to take over the provision of all vascular inpatients for Kent and Medway. A significant additional build with capital investment would be required to enable this to happen. Therefore, the preferred option is Option 5A: Interim Solution of a Single Arterial Centre at Kent and Canterbury Hospital and Enhanced Non-Arterial Centre at MFT.</p> <p>Option 5A would see an Activity movement of 4,621 from MFT to EKHUFT. This creates a financial risk of £1,434k to MFT. It is expected that both commissioning bodies (CCGs and Specialised Commissioning) enter discussions with MFT regarding their freed capacity if the activity flows to EKHUFT.</p> <p>This business case confirms agreement between MFT and commissioners that there will be no stranded costs because this capacity will be utilised by other services in the future. K&amp;M CCG are asked to support the Trust through this transition (typically 3 years) if the released capacity is not purchased by either commissioner.</p> <p>The detailed financial analysis of Option 5A can be found in this business case under Point 4 'What are the details of the preferred option?' It identifies the requirement of additional funding from CCGs to support the move to a safe, compliant and sustainable service and to mitigate financial risk across the system.</p> <p>As Specialised Commissioning historically pay for activity through Payment by Results (PbR), the financial risk to the system requires additional CCG funding to be agreed to make the preferred option viable. The recurrent funding request is summarised in Table 1.1 below.</p> <table border="1" data-bbox="161 1144 762 1375"> <thead> <tr> <th>Cost Description</th><th>£'000</th></tr> </thead> <tbody> <tr> <td>Variation Blended to Tariff EKHUFT</td><td>367</td></tr> <tr> <td>Patient Travel - SECAMB</td><td>125</td></tr> <tr> <td><b>Sub Total</b></td><td><b>492</b></td></tr> <tr> <td>Service investment</td><td>342</td></tr> <tr> <td><b>Total K&amp;M CCG cost</b></td><td><b>834</b></td></tr> </tbody> </table> <p><b>Table 1.1 Financial impact of the proposed option 5A</b></p> <p>NHS England will be undertaking a review of how this service will be commissioned and paid for in future. It is understood the payment identification by the grouper is incorrect and the activity should be purchased by Specialised Commissioning. Specialised Commissioning will be reviewing the OPCS codes to ensure there is consistency of coding and no activity creep via code changes. It will be a requirement that any resulting transfer of activity and finance will be prepared and agreed between commissioners separately.</p>	Cost Description	£'000	Variation Blended to Tariff EKHUFT	367	Patient Travel - SECAMB	125	<b>Sub Total</b>	<b>492</b>	Service investment	342	<b>Total K&amp;M CCG cost</b>	<b>834</b>
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4.	<b>What are the details of the preferred option?</b>												
	<p>The preferred interim option, pending the outcome of the wider East Kent Transformation Programme, is a network model that works across a number of sites with a single acute inpatient arterial centre supported by an enhanced non-arterial centre and a number of outpatient sites.</p> <p>The proposed model will be structured as follows:</p> <ul style="list-style-type: none"> <li>• <b>Single Arterial Centre (Hub)</b> – The proposed Arterial Centre will be the single hospital within the network that provides all inpatient care for both elective and emergency vascular surgery, providing all types of vascular surgery and vascular interventional radiology. This would be</li> </ul>												

located at the Kent and Canterbury Hospital in Canterbury, East Kent. This Arterial Centre would be the only hospital in Kent and Medway that has on site a 24/7, full, year-round specialist vascular team to manage all acute inpatient elective and emergency vascular surgery. This Arterial Centre would also be the managerial centre for the Kent and Medway Vascular Network. This Arterial Centre would also fulfil all the components of care available in an enhanced non-arterial vascular centre. This reflects the national recommendation for best practice. All vascular inpatient care would take place in this single Arterial Centre, this would include recovery from surgery until the patient is fit to either return home or to be transferred to rehabilitation care closer to their place of residence. This is mainly the case for patients requiring amputations although some other North Kent patients may wish to return to Medway Hospital for further rehabilitation closer to home. The Arterial Centre would also provide a comprehensive vascular diagnostic and outpatient ambulatory care service for the local population.

- **Enhanced non-arterial vascular centre (Enhanced Spoke)** – It is proposed that Medway Hospital (MFT) will be the Enhanced non-arterial vascular centre and would form an integral part of the Networks solution model of care. This would be resourced to provide local vascular services that do not require a 24/7 workforce presence and inpatient based vascular interventions. It would have an enhanced weekday presence of a specialist vascular team to support other acute services within the hospital. This hospital would have interventional radiology (IR) services to support day case vascular interventions. This IR service would also support the IR needs of non-vascular services. Day-case services would be provided to support activity within the vascular network e.g. renal access surgery and on-going fistula management support interventions and it would offer a comprehensive vascular diagnostic and outpatient ambulatory care service.
- **Non-enhanced non-arterial hospitals (Spokes)** - Locally across Kent and Medway, the proposed Network model will be supported by Non-enhanced non-arterial hospitals. Hospitals that provide acute care services (typically medicine, surgery, obstetrics), that at times would require on site vascular advice and would require direct contact links to the arterial vascular centre for 24/7 support for vascular advice and patient management. These sites would not have a daily specialist vascular presence, however, the ability to offer full vascular diagnostics and outpatient services for the local population would be available. The Non-enhanced non-arterial hospitals would deliver all out of hospital care and would be delivered through the existing Kent and Medway hospitals' buildings at these sites. These hospital sites, which include Maidstone Hospital, Sheppey Hospital, William Harvey Hospital, Queen Elizabeth The Queen Mother Hospital and Dover Hospital would deliver a range of services that seek to keep care as close to home as possible for patients and would include:
  - Outpatients clinics; i.e. multi-disciplinary clinics, condition specific clinics, one stop shop clinics, nurse led and consultant clinics;
  - Pre- and post-operative care;
  - Ongoing monitoring and management of vascular conditions e.g. Peripheral vascular disease;
  - Diagnostics and tests; and
  - Day surgery where appropriate

In summary therefore, the preferred interim option would see EKHUFT becoming the host provider Trust for the Kent and Medway Vascular Surgical Service with all inpatient vascular surgery centralised at the Kent and Canterbury Hospital in Canterbury. There would be no inpatient vascular surgical care provided at MFT.

Outpatient service provision, diagnostics for vascular surgery and day case surgery would remain unchanged in terms of their location but EKHUFT would become the provider of all of those services.

The vascular surgical team who are currently employed by Medway Hospital NHS Foundation Trust would all transfer over to East Kent Hospitals University NHS Foundation Trust under TUPE arrangements. This includes 4 consultant vascular surgeons, 1 ST Registrar, 2 Vascular Nurse

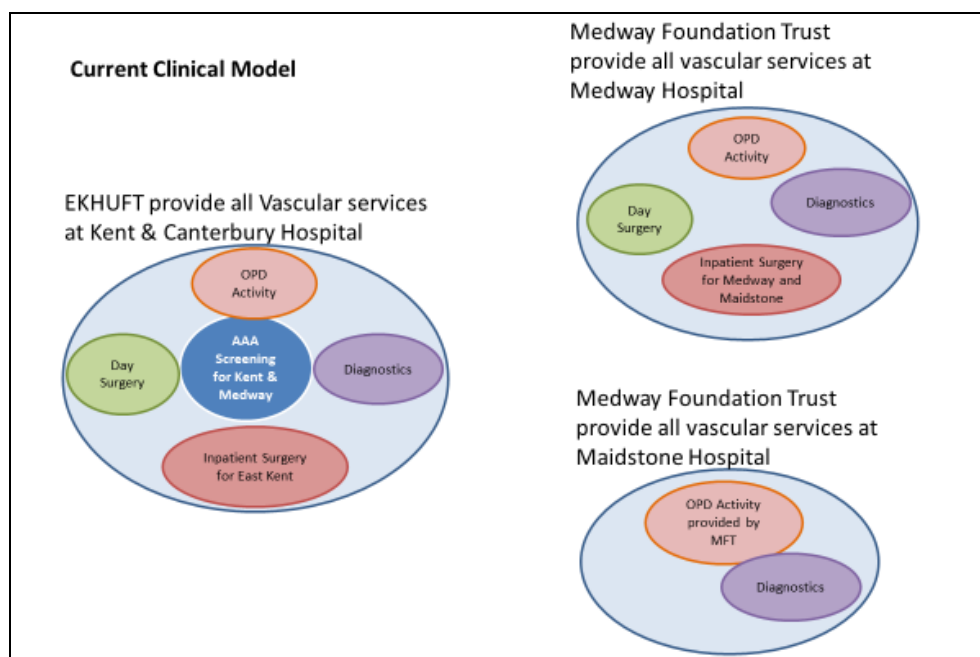
Specialists and 3 supporting administrative staff. Other teams that provide a supporting service for the vascular surgical service would continue to provide these services under a number of service level agreements. Details of staff transferring and their clinical commitments are provided at Appendix 2.

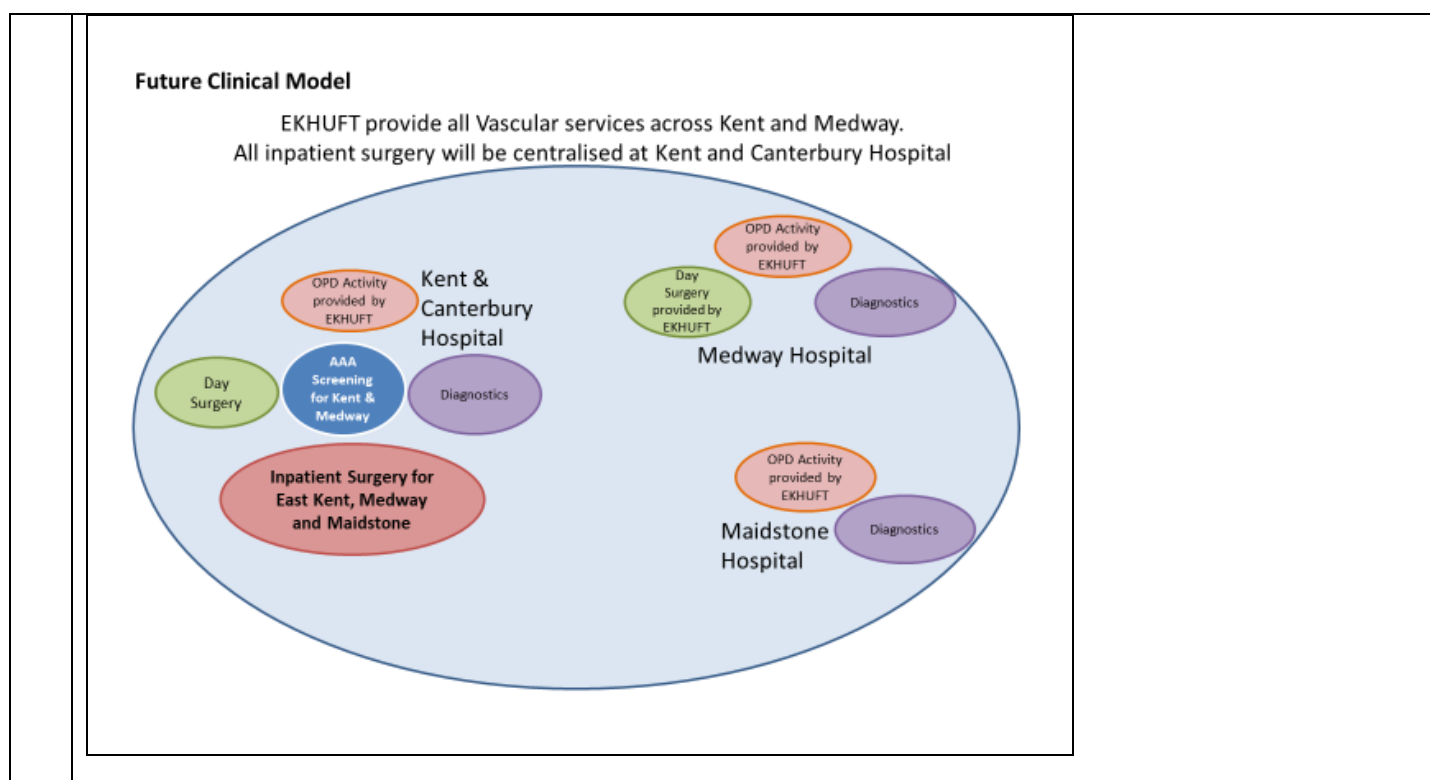
Some members of Medway Hospital's anaesthetic team and interventional radiology team have expressed a desire to continue to participate in the provision of vascular surgical care at K&CH but do not wish to formally transfer their employment to K&CH. Arrangements would be made for those staff to participate in the vascular network using honorary contracts and service level agreement to remunerate them for their time. All appropriate clinical governance arrangements have been set in place to support this activity.

At Maidstone Hospital, outpatients and diagnostic services would continue to be provided as at present. The hospital would have access to Vascular Consultant opinion with consultant presence 2 days per week. A Vascular Consultant would also be available on a planned ad-hoc arrangement to support with elective gynae-oncology, orthopaedic and obstetric surgical cases where it is considered necessary to have a vascular specialist on site. The current Service Level Agreements that exist between MTW and MFT will be transferred to EKHUFT and would be reviewed after the Network has been operational for 6 months.

The detailed clinical model and clinical pathways have been produced and formally approved by the Network Steering Group and can be found at Appendix 3. Given elapsed time/COVID-19, these will require formal review and signoff by the Clinical Task & Finish Group, Steering Group, and Programme Oversight Group.

The two Venn diagrams below show the scale of the proposed changes.





Under the preferred option, EKHUFT will become the lead provider organisation for all vascular services in Kent and Medway.

### **Detailed Financial Analysis of the full year effect of the change**

The preferred interim option (Option 5A) is not cost neutral for commissioners and presents some financial risk to all parties. It requires;

1. A commitment from commissioners to discuss the purchase of released capacity at MFT
2. Investment funding to support the move to a safe and sustainable service.
3. The additional cost of patient transport as a result of the move.
4. The impact of the tariff price to EKHUFT compared to the blended price paid to MFT

The detailed financial analysis below illustrates the;

- current Commissioner position of activity at MFT
- anticipated activity and finance changes under the preferred option
- impact and financial risk of these changes to Providers
- required investment to ensure the service is compliant
- total financial impact to the health economy

Activity and Price levels are taken from 2019/20 data. This data is agreed by all parties as a true reflection of the latest position available.

A broad range of vascular surgical activity is currently commissioned by both Specialised Commissioning and the local Clinical Commissioning Groups (CCGs). In respect of inpatient vascular surgery, Specialised Commissioning are the lead commissioner supported formally by the CCGs. Both agree to work closely together on supporting the delivery of safe vascular services in Kent and Medway.

If this proposal is agreed together with an implementation timeline the part year effect will need to be calculated. It is likely the service, if approved, will not transfer until August 2021.

Current Commissioner position of activity at MFT

Below is the analysis of the Commissioner of the proposed activity transferring to EKHUFT the location of activity would be across the whole network but all inpatient activity would be at the proposed single arterial centre.

Table 1.2 below provides the split of activities currently provided by MFT under contractual and non-contractual (NCA) arrangements.

INCOME	TOTAL Contracted		TOTAL NCA		GRAND TOTAL	
	Activity	£'000	Activity	£'000	Activity	£'000
Adult Critical Care	514	494	12	11	526	504
Daycase	102	110	6	6	108	117
Elective Inpatient	125	566	5	19	130	585
Emergency Inpatients	276	1,343	4	3	280	1,345
Excess Beddays	64	5	4	1	67	6
OP FA	1,318	279	16	3	1,333	282
OP FU	1,514	140	16	1	1,530	142
OP Procedure	94	13	-	-	94	13
Unbundled Radiology	546	30	8	0	555	30
	<b>4,552</b>	<b>2,980</b>	<b>70</b>	<b>45</b>	<b>4,621</b>	<b>3,025</b>

**Table 1.2 Activities by Commissioner for MFT**

The contracted activity includes activity for Dartford, Gravesham and Swanley, Swale and Medway which is paid for at a negotiated 'blended' price. All non-contracted activity is charged at tariff. If the activity transfers to EKHUFT it is expected to all be paid for at tariff prices. EKHUFT accept the risk that the NCA activity is variable.

Table 1.3 below details the element of the activity currently purchased by Specialist commissioning

INCOME	Contracted		NCA		Grand Total	
	Spec Comm		Health & Justice			
	Activity	£'000	Activity	£'000	Activity	£'000
Adult Critical Care	64	63	0	0	64	63
Daycase	0	0	1	1	1	1
Elective Inpatient	16	96	0	0	16	96
Emergency Inpatients	5	46	7	28	12	74
Excess Beddays	1	0	0	0	1	0
OP FA	149	30	4	1	153	31
OP FU	185	16	1	0	186	16
OP Procedure	6	1	0	0	6	1
Unbundled Radiology	53	3	1	0	54	3
	479	255	14	30	493	285

**Table 1.3 MFT Contracted and Non-Contracted Activity with NHS England**

Table 1.4 below details the element of the activity currently purchased by Clinical Commissioning Groups (CCGs)



INCOME	Contracted		NCA						Grand Total	
	K&M CCG*		Bromley CCG		Other K&M Regions		NCA			
	Activity	£'000	Activity	£'000	Activity	£'000	Activity	£'000	Activity	£'000
Adult Critical Care	361	336	0	0	89	95	12	11	462	442
Daycase	77	77	0	0	26	35	4	4	107	116
Elective Inpatient	71	274	0	0	41	202	2	13	114	489
Emergency Inpatients	210	996	0	0	56	274	1	1	267	1,271
Excess Beddays	46	0	0	0	20	6	0	0	66	6
OP FA	845	183	2	0	323	65	11	2	1,181	250
OP FU	845	82	0	0	487	42	12	1	1,344	125
OP Procedure	26	4	0	0	61	9	0	0	87	13
Unbundled Radiology	149	9	0	0	343	18	8	1	500	28
	2,630	1,961	2	0	1,446	746	50	33	4,128	2,740

**Table 1.4 MFT Contracted and Non-Contracted Activity with CCGs**

\* Medway, Swale, DGT, West Kent (Maidstone only) and C&C

Table 1.5 below provides a summary of tables 1.3 and 1.4

INCOME	NHSE		CCG's		Grand Total	
	Activity	£'000	Activity	£'000	Activity	£'000
Adult Critical Care	64	63	462	442	526	505
Daycase	1	1	107	116	108	117
Elective Inpatient	16	96	114	489	130	585
Emergency Inpatients	12	74	267	1,271	279	1,345
Excess Beddays	1	0	66	6	67	6
OP FA	153	31	1,181	250	1,334	281
OP FU	186	16	1,344	125	1,530	141
OP Procedure	6	1	87	13	93	14
Unbundled Radiology	54	3	500	28	554	31
	493	285	4,128	2,740	4,621	3,025

**Table 1.5 MFT Total Contracted and Non-Contracted Activity**

#### Anticipated activity and finance changes under the preferred option

All applicable (i.e. excludes K&M activity currently referred to London) Activity and Cost will be owned and reported by EKHUFT under the preferred option. Actual activity would be carried out across the whole network, i.e. across sites within Kent and Medway, except for all inpatient activity, which will be carried out at the proposed single arterial centre only. Activity continuing at MFT will be transacted between the Trusts through a formalised Provider to Provider contract.

Income and associated Expenditure relating to Activity which will move under the preferred option is illustrated in Table 1.6 below. It identifies a total Activity number of 4,621 per annum to be transferred from MFT to EKHUFT.

It also identifies the current structure supporting the activity at MFT and the proposed structure to support the same level of activity at EKHUFT. The statement **excludes** the additional investment request.

INCOME	MFT		EKHUFT	
	Activity	£'000	Activity	£'000
Adult Critical Care	526	505	526	624
Daycase	108	117	108	123
Elective Inpatient	130	585	130	603
Emergency Inpatients	279	1,345	279	1,594
Excess Beddays	67	6	67	18
OP FA	1,334	281	1,334	257
OP FU	1,530	141	1,530	127
OP Procedure	93	14	93	13
Unbundled Radiology	554	31	554	31
Income from Activity	4,621	3,025	4,621	3,392
Stents		89		570
Total Income	4,621	3,114	4,621	3,962

EXPENDITURE				
Pay Costs	WTE	£'000	WTE	£'000
Consultant	5.10	922	5.00	682
Nursing	13.61	561	17.26	536
Junior Doctors	7.15	329		
HCA's	4.44	119		
Theatre Practitioners	3.34	144	0.46	22
Admin	3.63	86	5.50	154
Radiology	0.55	23		
Technician	0.54	12		
Non Clinical	0.16	3		
AHP			9.24	350
Critical Care			10.84	369
SCP			1.00	55
Sonographer				
Specialist Nursing			3.26	176
Outpatient Services			1.00	24
Total Pay Costs	38.52	2,199	53.56	2,367

Non-Pay Costs	£'000	£'000		
Travel Costs		19		
Drugs	98	120		
Other Non-Pay Costs	57	65		
Pathology		1		
Radiological Services		7		
Supplies	145	155		
MTW Outpatient Clinical Recharges	107	107		
Medway FT Outpatient Clinical Recharges		151		
Non-Pay Costs	407	625		
Stents	89	570		
Pass Through Costs	89	570		
Pharmacy		20		
Pathology		31		
Radiology		13		
Equipment		75		
Other Non-Pay Costs	0	139		
Total Non-Pay Costs	2,694	3,701		
Estates and facilities site costs	296			
Total Gross Cost	38.52	2,990	53.56	3,701
Contribution	4%	123	7%	261

Table 1.6 Activity transferring from MFT to EKHUFT under the preferred option

Prices **include** Market Forces Factor (MFF).

This level of Vascular Services performed at MFT earned them a 4% contribution of £123k in 2019/20. The same level of Vascular Services performed at EKHUFT is expected to earn them a 7% contribution of £261k based on 2019/20 data.

The movement of Activity from MFT to EKHUFT presents an Income from Activity change of £367k. The MFT contract has been agreed with a 2 year 'blended' price for 2019/20 and 2020/21. Therefore, the income currently paid to MFT for the inpatient activity is £367k less than the equivalent tariff price that would be paid to EKHUFT. This will result in a cost pressure to the CCG of £367k which is net of the difference in MFF.

#### Impact and financial risk of these changes to Providers

Some staff have been identified as likely to TUPE from MFT to EKHUFT. These are shown in Table 1.7 below.

EXPENDITURE	TUPE		Not TUPE		TOTAL	
Pay Costs	WTE	£'000	WTE	£'000	WTE	£'000
Consultant	4.12	797	0.98	125	5.10	922
Nursing	2.00	107	11.61	455	13.61	561
Junior Doctors	1.00	58	6.15	271	7.15	329
HCA's			4.44	119	4.44	119
Theatre Practitioners			3.34	144	3.34	144
Admin	3.00	73	0.63	13	3.63	86
Radiology			0.55	23	0.55	23
Technician			0.54	12	0.54	12
Non Clinical			0.16	3	0.16	3
<b>Total Pay Costs</b>	<b>10.12</b>	<b>1,034</b>	<b>28.40</b>	<b>1,164</b>	<b>38.52</b>	<b>2,199</b>
	26%		74%			

**Table 1.7 Details of staff likely to TUPE from MFT to EKHUFT**

The remaining staff (28.4wte's) have been assessed as unlikely to wish to TUPE due to travel. The cost of these staff members is £1,164k. MFT have highlighted that some of these remaining staff are integral to the provision of a wider service and staffing rotas at the Trust.

There is a financial risk to EKHUFT if the Trust are unable to secure the appropriate number of staff through TUPE's and redeployment from MFT. If the Trust is unable to recruit into these posts in a timely fashion, this would lead to the Trust having to employ costly locum and agency staff.

The total financial risk to MFT under the preferred option is summarised in Table 1.8 below.

Heading	£'000	Comments
Critical Care bed	376	Equivalent to 1 critical care bed capacity. Available for alternative use post-COVID and Vascular service transfer.
Junior Doctor capacity	271	Vascular junior doctors are part of the General Surgery rota that will remain at MFT. Future arrangements will have to be made between MFT and EKHUFT how these doctors will be utilised for outpatient activity at MFT.
Interventional Services	60	IR is providing 24/7 on call service and this capacity will have to remain at MFT and will be available for alternative use.
Theatres and Wards	457	Service managers are putting together a package of proposals how this capacity will be used post-vascular service transfer. Options considered are repatriation of activity from private sector, supporting patient flow in the hospital or improving on RTT rate.
Contribution to be included	269	Ward estate cost and contribution
	<b>1,434</b>	

**Table 1.8 Total Financial Risk to MFT under the preferred option**

The Activity movement of 4,621 from MFT to EKHUFT creates a financial risk of £1,434k to MFT. It is expected that both commissioning bodies (CCGs and Specialised Commissioning) enter discussions with MFT regarding their freed capacity if the activity flows to EKHUFT.

This business case confirms agreement between MFT and commissioners that there will be no stranded costs because this capacity will be utilised by other services in the future. K&M CCG are asked to support the Trust through this transition (typically 3 years) if the released capacity is not purchased by either commissioner.

### Impact to the Health Economy

- The MFT contract has been agreed with a 2 year 'blended' price for 2019/20 and 20/21. Therefore, the income currently paid to MFT for the in-patient activity is £367k less than the equivalent tariff price that would be paid to EKHUFT.
- Patients from the Medway and Maidstone areas would need to be transported for their inpatient admittance. South Coast Ambulance (SECamb) has provided an indicative price for the cost of additional transport for inpatients. Discussions with SECamb have identified a potential additional cost of these journeys of £125k. The exact value would need to be agreed by formal contract discussion between the lead CCG commissioner and SECamb.
- In order to deliver a compliant Vascular Service under the preferred option, EKHUFT require an investment of £603k which is detailed below in Table 1.9 below. The impact and deliverables from this investment are detailed in Section 2.4 of the Business Case.

This is considered the minimum investment required to ensure the service provides equitable and fair services to any patients requiring vascular treatment across Kent and Medway and meet National Specification requirements.

After EKHUFT utilises the 7% contribution to service on-costs and overheads for the additional activity, this leaves the Trust with a £342k shortfall. It is requested that this shortfall is funded by the commissioning CCG recurrently.

Investment - Service Enhancement Pay		
Role	WTE	£'000
Vascular Specialist Nursing	2.00	76
Vascular Medical Staff	2.00	260
Admin	1.00	55
Vascular Specialist Nursing - Sonographer	1.00	64
Admissions Area	4.80	148
<b>Total Pay Costs</b>	<b>10.80</b>	<b>603</b>
Contribution	7%	261
<b>FINAL Contribution/(Loss)</b>	<b>64.36</b>	<b>-342</b>

**Table 1.9 Investment in EKHUFT services required**

Commissioners are required to support these costs e.g. the move to a safe and sustainable service, and mitigate financial risk across the system. As Specialised Commissioning historically pay for activity through Payment by Results (PbR), the financial risk to the system requires CCG funding to be agreed to make the preferred option viable. The recurrent funding requested is summarised in Table 1.10 below.

Cost Description	£'000
Variation Blended to Tariff EKHUFT	367
Patient Travel - SECamb	125
<b>Sub Total</b>	<b>492</b>
Service investment	342
<b>Total K&amp;M CCG cost</b>	<b>834</b>

Table 1.10 Total Cost to K&amp;M CCG

### Implementation plan and timescales

The pre-consultation business case is being prepared by NHS England South East Spec Comm and this is required to be approved prior to commencement of a public engagement or consultation. This assurance process can only commence once the provider organisations are signed up to the business case and agree on the preferred option. Once all NHS providers and NHS England agree with the proposals set out in this business case, commissioners will secure the agreement of the Joint Health Overview and Scrutiny Committee, comprising members from Kent County Council Health Overview and Scrutiny Committee and of the Medway Health Overview and Scrutiny Committee. This will enable public engagement or consultation to commence. Analysis of the consultation feedback and responses will then be undertaken to allow the NHS organisations to make an informed decision on their proposal for the interim solution for the Kent & Medway Vascular Network.

The current programme of supporting works at EKHUFT and currently identified activity at MFT shows that the earliest the proposed interim solution for the Kent and Medway Vascular Network could go live is the summer of 2021. This is subject to necessary stakeholder approvals and engagement or consultation.

The stakeholder approvals required are:

Programme Oversight Group/Steering group

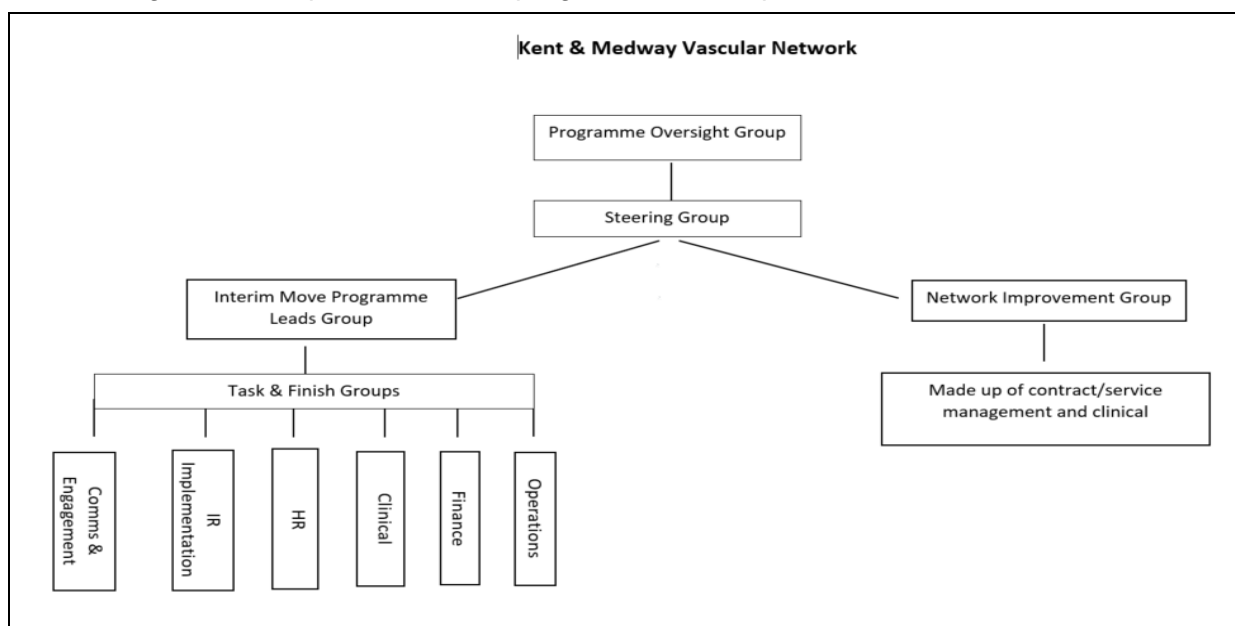
EKHUFT board

MFT board

Commissioner (NHSE/I Specialised Commissioning and Kent and Medway CCG)

NHSE Assurance

The direct governance process for this programme and implementation of the network is as follows:



## Section 2 - Case for Change Summary

### 1. What is the issue/s that needs to be resolved?

#### 1.1 Introduction

Vascular Surgical services in Kent and Medway are currently provided by two NHS Trusts: Medway Foundation NHS Trust and East Kent Hospitals University NHS Foundation Trust. However, the current configuration of specialised vascular surgery across Kent and Medway is not sustainable and needs to change.

The NHS England service specification which references the recommendations of the Department of Health, VSGBI, the Royal College of Radiologists, NCEPOD and NICE recommends a minimum population of 800,000 in order to maintain safe activity levels stating that “vascular services need to be organised to allow reasonable volumes of elective activity to exist alongside an acceptable consultant emergency on-call rota thus ensuring appropriate critical mass of infrastructure and patient volumes.”

The review of vascular service in 2015/16 led by the South East Regional Medical Director, recommended that the arterial centre should be located at Kent and Canterbury Hospital in Canterbury ahead of its final location being defined and coming to fruition under the East Kent STP. Professor Mike Horrocks (GIRFT vascular lead) and Jonothan Earnshaw (VSGBI) agree with this recommended model.

In March 2019, the South East Regional Medical Director and Chief Clinical Information Officer (CCIO) also recommended that the arterial centre should be established at Canterbury<sup>2</sup>. He acknowledged that the future location of the unit will be determined through the East Kent transformation programme but this should not distract from the need to ensure delivery of a high quality, sustainable service in the interim. It was therefore NHS England’s intention to implement the recommendations of the review and to commission vascular services from a single inpatient arterial hub in Kent and Medway as an interim solution, pending the outcome of the East Kent Transformation Programme.

#### 1.2 What are specialist vascular services?

Vascular disease affects veins and arteries. It may cause blood clots, artery blockages and bleeds which can lead to strokes, amputations of limbs and conditions that might threaten life if left untreated.

NHS England (South East) commission (plan and pay for) specialised treatment in Kent and Medway, Surrey and Sussex, Thames Valley and Wessex.

NHS England has led a review to look at this small but very important part of specialised services in Kent and Medway. Specialised vascular services are types of treatment for:

- 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 types of treatment that might be required include:

- 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.

<sup>2</sup> Please see Appendix 4

All these treatments are highly specialised and need a skilled team available 24 hours a day, every day of the year, to provide this service and support patients.

The review looked at both emergencies and planned specialist vascular treatment. It included both patients treated in Kent and Medway hospitals and people living in Kent and Medway who go to London for their treatment. This review did not look at varicose vein surgery, heart disease, heart surgery or the management of the common types of stroke.

### 1.3 Why has NHS England reviewed specialist vascular services in Kent and Medway?

Vascular services are a specialised area of healthcare which, evidence has shown, will benefit from organisation into larger centres covering a population that is big enough for there to be significant volumes of activity in all areas of service, with a robustly staffed workforce able to deliver services 24 hours a day, 365 days of the year.

There is an opportunity in Kent and Medway to ensure that excellence in patient care and outcomes can be provided and that resource is always available for the vascular service to continue to improve on the type and standards of care provided.

Establishing a vascular service of excellence will offer the opportunity for a much improved and comprehensive service to patients. In particular, the right model of care could deliver more local care to Kent and Medway residents and the type of care could include more complex procedures. Such a centre will be better able to embrace new technology and innovation in practice. A regional centre of excellence is most likely to be the place that patients would choose for their specialist care and where other clinicians are most likely to refer their patients to. Such centres are most likely to be able to attract the highest calibre workforce and offer sustainability.

The training boards will look to centres of excellence to be involved in training the future generation of vascular clinicians. This not only benefits the service but invests in the future provision of excellence in patient care. Suitably sized centres with the appropriate population could offer opportunity for quality audit and research.

The vision of the clinical teams in Kent and Medway is to develop and deliver a model of care for vascular services that offers all of these benefits.

## 2. How frequently does the issue occur?

Vascular surgical services in Kent and Medway have been the focus of intensive reconfiguration works for the past 6 years. The services do not comply with the national service specification or meet the needs of the VS POVs. Kent and Medway are three or four years behind many other parts of the country where vascular services have already been reconfigured to achieve compliance and deliver more sustainable care.

Under the preferred option, the growth in inpatient activity (from present state) is shown in the table below. More up to date information is not available because of the impact from COVID-19 on hospital services.

Activity	2018/19	2019/20 (FYE)	Total (12-month average)
<b>EKHUFT Current Total</b>	680	740	700
<b>EKHUFT New Total</b>	1066	1149	1091
<b>% Change</b>	57%	55%	56%

**Table 2.1 EKHUFT current and new total inpatient activity**

## Procedures

The table below shows the total number of inpatient procedures that took place in 2019/20 at EKHUFT and at MFT. The activity undertaken at MFT includes patients admitted from the Maidstone catchment area.

Procedure Type	EKHUFT 2019/20 (Full Year)	MFT 2019/20 (Full Year)
Open Aortic Aneurysm	52	10
EVAR Aortic Aneurysm	54	20
Subclavian Artery	0	4
Lower Limb - Reconstruction Surgery	48	48
Lower Limb - Amputation (Major)	78	66
Lower Limb - Amputation (Minor)	70	98
Emergency Femoral Artery	0	2
Elective Iliac Artery Ops	4	0
Carotid Endarterectomy	32	10
IR - Angioplasty	270	94
Renal Access	128	46
Other	4	11
<b>Total inpatient activity</b>	<b>740</b>	<b>409</b>

**Table 2.2 EKHUFT and MFT Procedure Types**

Detailed analysis of the activity data has produced a definitive set of procedures which relate to inpatient care.

## Outpatients

The following data from 2019/20 is for Vascular Outpatients, split by New and Follow Up. It also shows the breakdown by each site where activity has been delivered. EKHUFT OP procedures are coded as OP Follow Up and are therefore not separated.

Site	OP New	OP Follow Up	OP Procedure	Grand Total
EKHUFT	3,641	3,651	0	7,294
MFT	1,333	1,530	94	2,957
<b>Total</b>	<b>4,974</b>	<b>5,181</b>	<b>94</b>	<b>10,251</b>

**Table 2.3 Outpatient activity at MFT and EKHUFT**

In 2018, Maidstone and Tunbridge Wells NHS Trust approached EKHUFT with an invitation to provide vascular surgical services for the whole of west Kent. Following discussions with West Kent CCG, this development has been temporarily been put on hold pending the outcomes of the EKHUFT and Medway Vascular Network. If the network achieves the aims and objectives that have been set out then MTW and the commissioners may look to the Kent and Medway Vascular Network to deliver this service. This will lead to west Kent activity being repatriated from London to the Kent and Medway Vascular Network.

### 3. What is the severity of the issue - Strategically? (Scope & Risk)

#### 1.4 Vascular Society of Great Britain and Ireland (VSGBI)

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. 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<sup>3</sup>. Reporting outcomes of all vascular surgical procedures to the new National Vascular Registry has been mandatory since April 2015

The national service specification, the Vascular Society guidance and a range of research papers culminate in the conclusion that to achieve the best outcomes for patients 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.

Indeed, being able to perform interventional radiology procedures in a dedicated hybrid theatre has the potential to significantly reduce the length of recovery and the risk of surgical complications and lower the risk of mortality compared to conventional open repairs.

To achieve the guidance and to deliver resilient and sustainable vascular services NHS England are re-organising vascular services into networks.

Since the publication of the national service specification NHS England, South-South East 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.
- 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 patients.

The emphasis on high volume specialist units particularly relates to concerns regarding the risks or

<sup>3</sup> . 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/>

poorer outcomes associated with a low number of cases each year. Hence there has been national recognition of the need for reconfiguration proposals to deliver sufficient activity per consultant to maintain the highest surgical standards.

Medway Foundation Trust and East Kent Hospitals University Trust are the two current arterial centres in Kent and Medway. However, neither currently meet the service specification criteria.

In January 2020, MFT's vascular surgical services were extremely fragile and it was becoming increasingly difficult to run robust on-call rotas for AAA Surgery. This had been an ongoing issue which EKHUFT had been supporting with since August 2019. On the 6<sup>th</sup> January 2020, MFT implemented an emergency move of all elective and non-elective AAA surgery to Kent and Canterbury Hospital. This has helped stabilise the vascular surgical services at MFT.

## 1.5 Kent and Medway Health Needs Assessment

The current K&M population is 1,817,400. (2016 ONS Data). The population of Kent is projected to increase by 125,800 by 2026 and will grow by around 14% by 2035. The population of Medway is projected to increase by just under 15%, reaching around 317,529 by 2035. This represents an increase of just over 40,500 people.

Kent and Medway face a number of demographic challenges these include pockets of significant growth in over 65 year olds in some areas (by 2035 the ONS thinks over 65s will make up more than a quarter of the area's residents), areas of deprivation and a significant variation of mortality across its wards.

Cardio Vascular Disease (CVD) is a key cause for premature death in Kent and Medway. Key concerns are the high prevalence of diabetes, hypertension, obesity and smoking.

The non-modifiable factors for CVD relate to;

- Age
- Male gender
- Ethnicity
- Family History.

The modifiable features include;

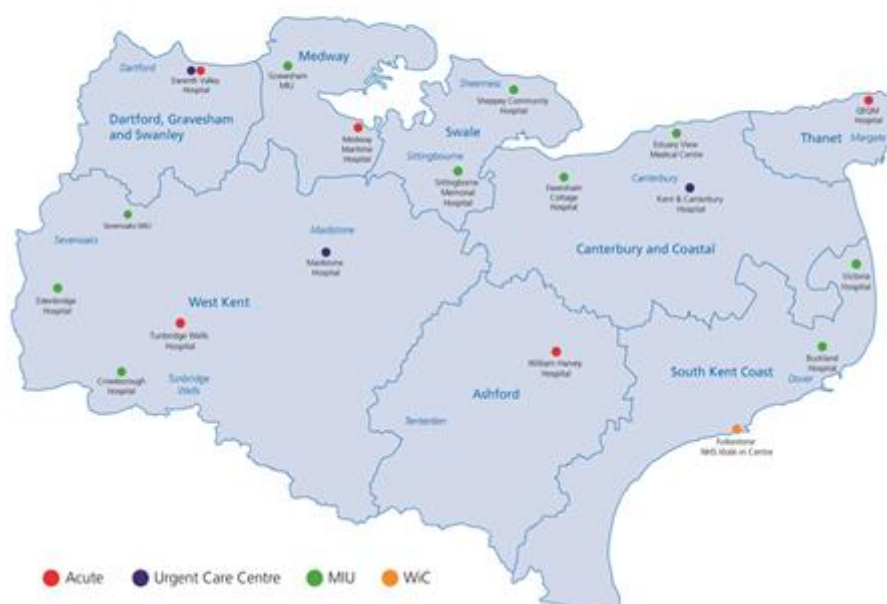
- Diabetes
- Smoking
- Hypertension
- Obesity
- Physical Inactivity
- Cholesterol levels
- Alcohol.

Across Kent and Medway, the highest prevalence for hypertension is in South Kent Coast and Thanet CCGs followed by, Dartford/Swanley & Gravesham (DGS) CCG. Diabetes prevalence is highest in Swale and Thanet CCGs followed by South Kent Coast and Medway CCGs. Medway CCG has the highest level of obesity followed by Swale CCG.

As noted there is a variance across Kent and Medway in relation to deprivation with key pockets across the North Kent and East coastal areas in particular South Kent Coast, DGS, Thanet and Swale. There are however specific wards in CCG areas with high levels of deprivation including Medway and West Kent CCGs.

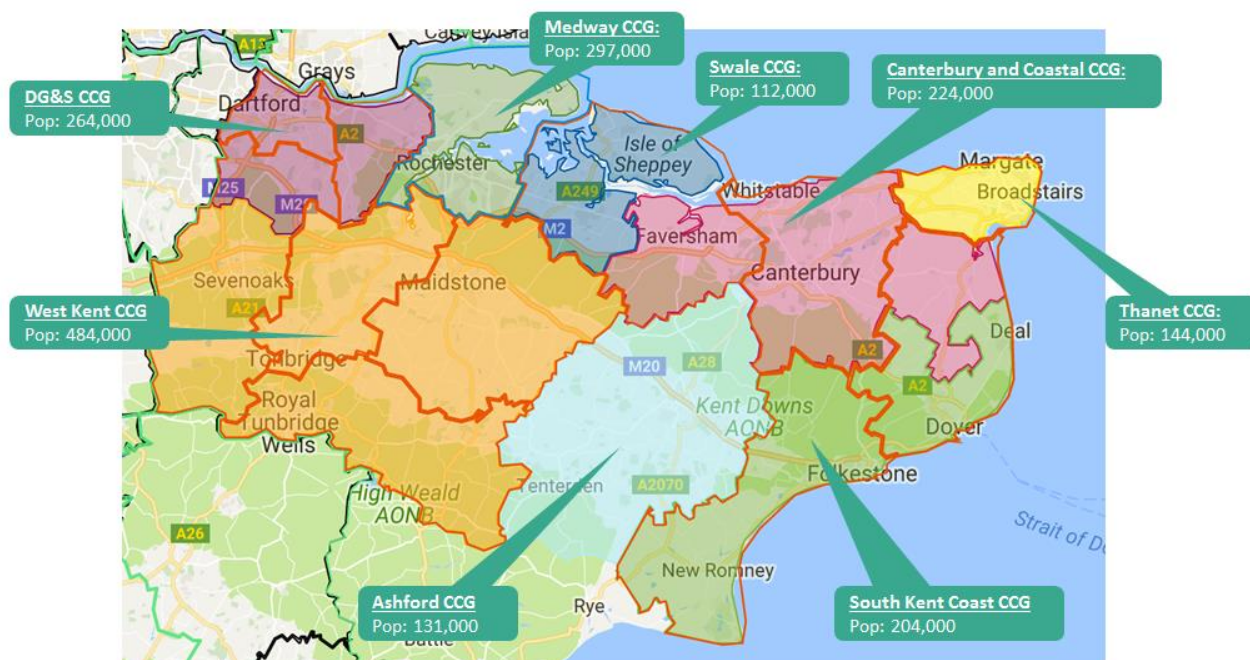
## Map of Kent and Medway with CCGs and Acute Hospital Sites

### CCGs in Kent and Medway



In Kent and in Medway, about 1,200 people need specialist acute inpatient vascular care each year.

## 1.6 Kent and Medway Clinical Commissioning Groups



Notes: CCG footprints are designated by background colours; District Council boundaries shown in red outline  
Source: NHS England GP ListSize Data (January 2017)

Figure 1: Map of Kent and Medway CCGs footprint

<b>North Kent CCGs</b>	<b>Population</b>
Dartford & Gravesham and Swanley CCG	264,000
Medway CCG	297,000
Swale CCG	112,000
<b>East Kent CCGs</b>	
Ashford CCG	131,000
Canterbury & Coastal CCG	224,000
Thanet CCG	144,000
South Kent Coast CCG	204,000
<b>West Kent CCG</b>	
West Kent CCG	<u>484,000</u>
<b>Total</b>	<b>1,860,000</b>

There are two main local authorities serving Kent and Medway, these are:

- Kent County Council; and
- Medway Council

The recommended population base (National Service Specification and Vascular Society guidance) needed for an adequate number of cases for a viable centre are 800,000.

If all the Kent population's vascular surgery requirements were cared for within Kent and Medway (i.e. including the population currently flowing into London from west and north Kent) then the total network population would exceed 1,600,000 and so would be enough to support two vascular arterial centres i.e. 800,000 per centre. However, the population flowing into London for vascular surgery equates to almost 50% of the West Kent population and 94% of the North Kent population (Dartford and Gravesham). As a consequence, the population data illustrates that the current combined catchment area for EKHUFT and MFT vascular surgical services is around 1.4 million.

## 1.7 Specification Standards

The National Specification for Vascular services 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 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
- 24/7 Interventional radiology available
- Acceptable on call rota requirements, i.e. consultants being on call no more frequently than every six weeks.
- A minimum of six Arterial surgeons and six 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 (MDT).

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
24/7 MDT	No	No	Yes	
6 vascular surgeons.	No	No	Yes	
On call rota (1:6)	1:4*	1:5*	1:10	*includes a locum
On call Vascular Interventional radiology	Yes	Yes*	Yes	*Recruitment underway
AAA screening	Through K&M screening programme	EKHUFT delivers the K&M screening programme	Yes	
Outpatient assessment	Yes	Yes	Yes	
Diagnostics	Yes	Yes	Yes	
In patient non arterial services	Yes	Yes	Yes	
Elective and emergency arterial services	Yes	Yes	Yes	
Day case surgery	Yes	Yes	Yes	
Planning Population currently served;	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
Risk adjusted Mortality rates; AAA/CE (NVR data September 15)	4.6%/ 4.0%	1.1%/ 1.0%	0.6%/ 3.5%	All within national tolerance

**Table 2.4 Status of the current services measured against the national specification**

Details of the current clinical pathways for patients requiring vascular treatment are provided at Appendix 10.

### 1.13 The Vascular Society

The Vascular Society 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<sup>4</sup> 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. (N.B. 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 business hours. 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 timely 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.
- Facilities must be set up for 24/7 provisions, supported by 24/7 critical care, dedicated vascular wards and endovascular theatre.
- 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% (by the 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 vascular centres should provide dedicated 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.
- This care should be provided in 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.

Vascular services are a specialised area of healthcare, which evidence has shown, will benefit from organisation into larger centres covering a population that will facilitate significant volumes of activity in all areas of service with a robustly staffed workforce able to deliver services 24 /7, 365 days of the year. The vision of the clinical teams in Kent and Medway is to develop and deliver a model of care for vascular services that will deliver all of this.

### 1.14 Aims and Objectives

The overarching aim of this programme is to provide evidence-based models of care that improve patient diagnosis and treatment, and ultimately improve mortality and morbidity from vascular disease. The service will deliver this aim by: -

- Improving the patient experience, providing equality of access to the full range of vascular diagnostics and interventions and ensuring that patients are receiving a high quality of service,

<sup>4</sup> The full document can be found at:

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

with access to the most modern techniques;

- Developing and sustaining the resilience of vascular services and the workforce providing those services;
- Improving mortality and morbidity rates for people with vascular disease and improving survival rates following hospitalisation;
- Improving complication rates following a vascular admission (short and long term).
- Reducing mortality rates by preventing death from ruptured abdominal aortic aneurysm, stroke, lower limb ischaemia and vascular trauma;
- Providing early intervention and treatment to achieve regional reductions in the incidence of stroke due to carotid artery disease and leg amputation due to peripheral arterial disease;
- Supporting other services to control vascular bleeding and manage vascular complications; and
- Working jointly with the diabetic and podiatry service to optimise care, minimise tissue loss and prevent amputation.

### 1.15 Travel Times Analysis

The Vascular Society recommends that services should be arranged to minimise transfer times and to transfer vascular emergencies to the vascular unit without delay. The key priority is to transfer the patient to a vascular unit, even if the travel time is beyond the hour, as evidence shows that this improves patient outcomes.

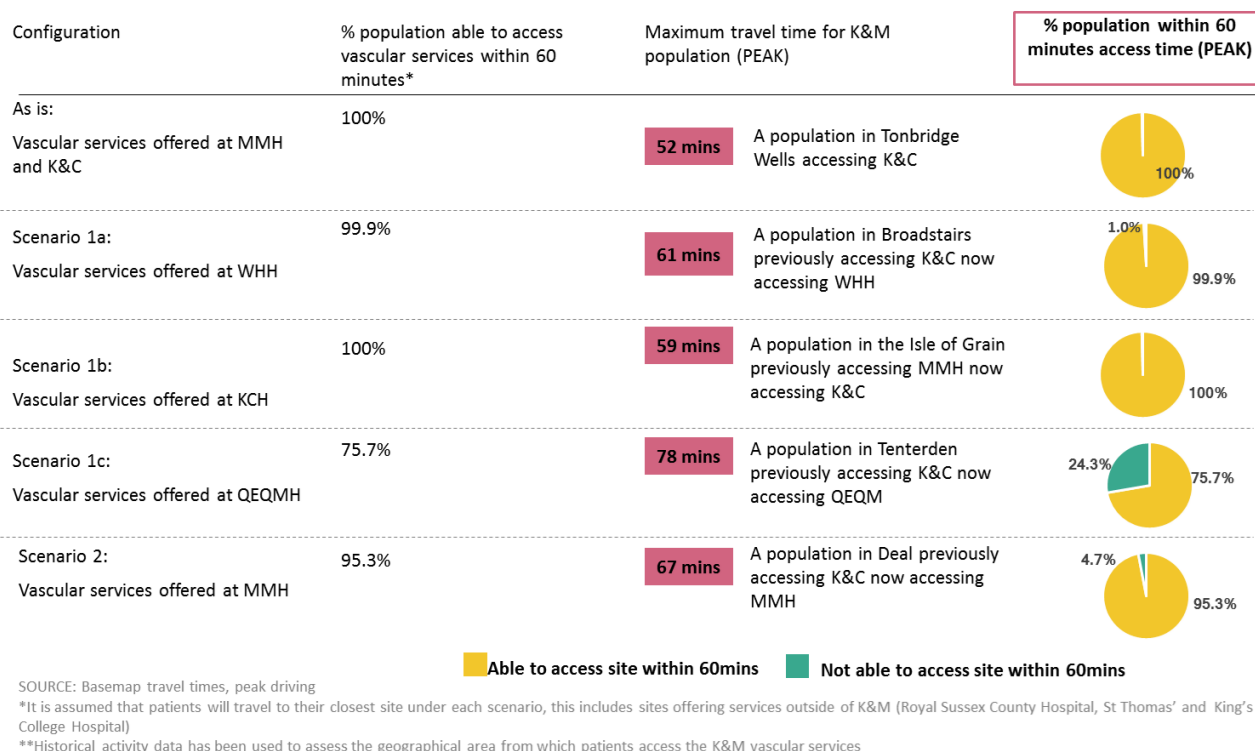
In January 2015, a detailed travel analysis was commissioned as part of the vascular service review in Kent & Medway (see appendix 5 for the detailed report). The results of the report showed the travel time to Medway Maritime and Kent & Canterbury hospitals and concluded that:

- Medway Maritime is the most accessible site within 30 minutes to the population of Kent and Medway
- Medway Maritime and Kent & Canterbury are equally accessible within 45 minutes
- London hospitals are accessible within 60 minutes by ambulance only to areas in the western quarter of Kent.
- A service centred on Medway Maritime would be slightly over 60 minutes by ambulance (62 minutes) from the east coast around Thanet which has a high number of admissions of circulatory disease (n = 1,699).
- A service centred on Kent & Canterbury would be over 60 minutes by ambulance from Tunbridge Wells, but this area has lower number of admissions than around Thanet (n = 796).

A further analysis of vascular patient travel times was also undertaken by Carnell-Farrar in July 2017<sup>5</sup>. The analysis showed that 100% of patients from across Kent and Medway are currently able to access vascular services provided at either MMH or K&CH within 60 minutes.

<sup>5</sup> Carnell-Farrar Travel times analysis is provided at Appendix 6

### Evaluation vascular travel times – driving peak (60 minutes)



The analysis also showed that having the Single Arterial Centre located at QEQMH would provide poor access for patients requiring vascular surgery. If the Centre was located at QEQMH then around 25% of the Kent and Medway population would fall outside of the 60-minute travel time window. As a result, around 5% of the population would be transferred to one of the London tertiary centres for the care.

Travel time analysis that has been undertaken has demonstrated that establishing the Vascular Centre at WHH or at K&CH would allow the best access for patients from across Kent and Medway allowing 99.9% and 100% of the population able to reach these respective sites within 60 minutes.

Having the Single Arterial Centre located at Medway Maritime Hospital would provide slightly lower levels of access; allowing 96.5% of the population to reach the centre within 60 minutes.

#### 4. What is the severity of the issue - Financially? (Scope & Risk)

The financial impact of maintaining the current clinical and operational model is difficult to cost due to the number of unknown variables which will arise from the deterioration of vascular services on each site due to the unsustainable pressures currently experienced by the services with staff stretched across unsustainable rota schedules. However, it is likely that, as with Medway currently, services would lose substantive medical staff who would be replaced by expensive locums and so ultimately the do-nothing option will increase costs in both organisations with no corresponding improvement in patient care.

In order for the Vascular Network to be compliant the service at EKHUFT has evidenced additional investment that will be needed.

These key risks are as follows:

- Without nursing investment, the service would not be able to provide a nurse led service on 5 hospital sites, 52 weeks of the year.
- Vascular sonographer – without this investment the service would continue to either have high cost agency rates and/or be unable to provide a service for Kent and Medway patients.
- Medical investment – the risk of not investing is that the service would have medical trainee



gaps in the next few years and without associate specialists the service would be unable to run a safe middle grade tier rota which would result in patient safety concerns. It would also have financial implications if high-cost agency is used to bridge this gap.

- Operations Manager – if the service is unable to have a full-time operations manager, that is able to support all sites in the network, there is a risk of disparity across the patch and might leave admin teams at Medway to not have the correct management and support in place.
- Admissions area- without a fully staffed admissions area, the service would need to use beds on the two wards (Kent and Clarke) but with the bed base predictions for both wards this is not feasible and would result in patients being cancelled on the day of surgery due to a lack of beds being available. Having a specialised admissions area allows the patients to come into a calm relaxed environment prior to surgery.

The vascular nursing staff play a vital role in service delivery for the patients that require this service. The majority of the nursing clinics are stand-alone, meaning these are autonomous clinicians making high level decisions for patients in regard to their treatment. These roles are usually banded at a 7 however the service has chosen to put in two band 6s into the business case. With this investment it will allow for further stand-alone clinics at 5 hospital sites (Kent and Canterbury, William Harvey, Queen Elizabeth Queen Mother, Medway and Maidstone).

The national specification outlines the following for Vascular Nurse Specialists

*“It is envisaged that the role of VSNs will become increasingly important in the delivery of vascular services generally, especially at Non-Arterial Centres. It is recommended that, during any reconfiguration, their role is reviewed and developed as required in order to support consultant colleagues in out-patient clinics, facilitate management of inpatient referrals and act as a link for patients being worked up for inpatient treatment at the Arterial Centre. It is anticipated that VSNs will need to adopt a much more proactive role, acting as the patients advocate and the principle point of liaison between the Arterial and Non-Arterial centres.*

*In most cases it is likely that the existing VSN complement will need to be increased, with at least one VSN, working to the model described, allocated per site. One option would be to introduce a degree of rotation so that VSNs have Arterial Centre commitments in addition to their Non-Arterial Centre duties enabling professional development, team working and a degree of cross-cover.”*

Therefore, to meet the national specification the service will require investment of 2 WTE nurse specialists to cover the Arterial, Non-Arterial centres and Non-enhanced non-arterial hospitals 52 weeks of the year.

From reviewing the previous Vascular staffing analysis, the nursing funding that has been put in at 13.61 WTE and is for ward staff, there is no funding illustrated in that document for specialist nursing which is required to support clinical outpatient activity as discussed above.

Without recruiting at associate level, the service will have a very vulnerable middle grade on-call rota which could result in high cost agency locums. The minimum requirement to run a middle grade tier rota is 6 WTE. Without the investment of 2 associate specialists the service would be unable to sustain this number of staff for this roster. Having associate specialists within the medical tier also allows for senior specialist knowledge, in particular sub-specialities of vascular. This will also ensure that the service is able to cover the emergency and elective theatres in times of leave and sickness with highly skilled clinicians rather than locums. As the service will be amending some of the medical staffing's base as part of this change there will be an increase in travel time and costs associated with this. Unfortunately, this cannot be avoided as clinicians will require K&C to be their base for on-call purposes but there will be a need to travel to other sites to provide clinics and other activity.

Due to the expansion and need for cross site working with Medway, and the Medway administration

team, it is felt that additional operational resource is required. This role will be essential in co-ordinating the systems and process across the network ensuring patients are not lost and robust systems are introduced and maintained. The role will have visibility on all sites and will lead the admin teams at Medway. The role will also support day to day running of the service including scheduling lists and ensuring typing is accurate, making sure patients are progressed through their pathways and doctors' timetables reflect what is needed. Comparisons were made against similar networks for renal and the requirements here are much smaller than the 3 WTE they have in place.

At present the service does not have funding for a vascular sonographer which is needed to undertake a number of specialist scans. This reflect the specification within the vascular service document that states that an arterial centre must have comprehensive vascular ultrasound diagnostic services. The scans include but are not limited to; Aortic aneurysm assessment, Post EVAR follow up scans, Carotid stenosis measurement for assessment of carotid endarterectomy, leg scans for femoral and popliteal aneurysm assessment, leg scans to reduce need for x-ray diagnosis of peripheral vascular disease, one stop clinic services for vascular assessment. Without this function the service might have to send patients to London for these scans which does not provide good patient experience. Currently the service utilises a locum 1 day per week to work through these scans, however there is regularly a 6-8 week wait for scans which has a significant impact on RTT compliance. Since submitting the staffing requirements, the service has reviewed the job description and banding for this post and have reduced this from an 8A to a band 7.

The national specification outlines the following for outpatient clinics:

*"It is recommended that, where appropriate, new patients should be offered a 'one-stop' service, with consultation and Duplex scanning taking place at their initial visit. This is convenient for patients and reduces the demand for follow-up appointments."*

Without a full-time Vascular Sonographer, the service will be unable to meet this recommendation. The service is currently paying a locum approximately £450 per day which equates to £23,000 per year. Although this cost is lower than having a WTE band 7, having a locum 1 day a week does not resolve the backlog challenges (current wait is 6-8 weeks for a duplex scan) and does not meet the recommendation of a one stop service. It also leaves the service fragile as reliance on locums provides little long-term stability.

Due to a requirement to expand beds to support the additional emergency inpatient work, the current admissions area for Vascular and Urology will be displaced. To replace this, additional investment will be required. The service has previously explored if day surgery admissions could support this, however the current space is not suitable and again would require staff investment due to the number of patients, day surgery would need to support. Without an admissions area the service would be at risk at providing a poor standard of care for patients coming in for admissions, having to keep beds free on Kent and Clarke Wards to admit these patients to which would limit the service's through-put on both wards. This admission unit will create streamlined processes for theatre admissions, reducing delays to theatres, improved communication pathways and saves time for medical teams as patients are all in one place.

Considering all of this the staffing requirement is considered to be the minimum investment required to ensure the service provides equitable and fair services to any patients requiring Vascular treatment across Kent and Medway and meet National Specification requirements.

After EKHUFT utilises the contribution to service on-costs and overheads this leaves the Trust with a £342,237 shortfall. The CCG is requested to invest in this service in order to make it compliant. The detailed financial analysis explores this further.

Service Enhancement Costs - Investment	WTE	Expenditure
Vascular Specialist Nursing	2	£75,554
Vascular Medical Staff	2	£259,928
Admin	1	£54,916
Sonographer	1	£63,949
Admissions Area	2.4	£89,774
Admissions Area	2.4	£58,646
<b>Total Pay Costs</b>	<b>10.8</b>	<b>£602,767</b>
<b>Final Contribution / Loss</b>		<b>-£342,237</b>

**Table 2.5 Cost of extra investment and new EKHUFT financial position**

**5. What are the risks to the Trust of maintaining the current position – Qualitative?**

There are many risks associated with maintaining the status quo. The service would continue to be unsustainable and this would threaten the viability of the existing vascular services. These sustainability issues relate to the fragility of specialist workforce (Consultant surgeons, IR Consultants and specialist nurses and the wider multi-disciplinary team) being spread too thinly across the county and having insufficient patients to treat. In turn, this means that our staff become less skilled and less experienced in treating sufficient numbers of patients to maintain competencies. Maintaining the status quo also means that having 24/7 on site vascular surgery and interventional radiology on-call rotas staffed by the right number of staff continues to be impossible.

We would continue to be unable to 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. Staying as we are will also mean that staff are also unable to develop their skills and expertise and this impacts on the ability to manage patients' conditions and recovery.

Having services fragmented inhibits opportunities for training, research and innovation and this all impacts on patient care.

Although K&C has a dedicated vascular ward and nursing staff, this is not the case in Medway where vascular patients are cared for on general surgical wards. Under the status quo this would continue. Patients requiring major amputations should be treated in arterial centres that have all the necessary skills and resources to manage their care. As there is no single arterial centre in place for Kent and Medway currently, at times patients do not receive a consistently high-quality service, with access to the most modern techniques. It is also difficult to make improvements to mortality and morbidity rates for people with vascular disease and improving survival rates following hospitalisation in the way services are currently configured. Making improvements to complication rates following a vascular admission (short and long term) is also extremely difficult.

Staying as we are would also mean that reducing mortality rates by preventing death from ruptured abdominal aortic aneurysm, stroke, lower limb ischaemia and vascular trauma would be challenging given the volumes of procedures undertaken by some surgeons and the demand within Kent & Medway. Providing early intervention and treatment to achieve regional reductions in the incidence of stroke due to carotid artery disease and leg amputation due to peripheral arterial disease and supporting other services to control vascular bleeding and manage vascular complications also continues to be extremely difficult and fragile without a network arrangement.

Maintaining the status quo would also mean that working jointly with the diabetic and podiatry service to optimise care, minimise tissue loss, prevent amputation, standardise methods and promotion of best practice across the clinical teams would continue to be challenging.

	<p>It also means that opportunities to reduced length of stay for patients and improving pathway links with community providers to support timely repatriation of patients following surgery would remain an issue. In summary therefore, if the status quo continues patients will continue receiving variable care with surgeons who are unlikely to meet the national minimum number of procedures which would ultimately likely affect the quality of care for patients.</p>
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## Section 3 – Option Appraisal

The outputs from the Review clearly demonstrated that there is a need to address the provision and configuration of the Vascular services in Kent and Medway to ensure sustainable and quality service accessible to all Kent and Medway residents.

The scope for the scheme is to reconfigure the existing Specialised Commissioned in-patient vascular services in Kent and Medway. With this in mind, an original long list of seven options was generated using the options framework.

### **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 Hospitals University NHS FT (EKHUFT) and Medway Foundation Trust (MFT) and Guy's and St Thomas' NHS Foundation Trust (GSTH).

### **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.

### **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, expect for highly specialised procedures.

### **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, expect for highly specialised procedures.

### **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.

### **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.

### **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.

The Vascular Review Programme Board formally agreed the scope of the reconfiguration and noted that this would not include the current patient flows into GSTT (July 2016). Patient and Clinical choice will remain for both GSTT and the new proposed K&M collaboration.

The options appraisal tested each option against a set of criteria from the national specification and the Vascular Society Provision of Vascular Services. These included:

- a. Minimum population volumes;
- b. Minimum procedures undertaken;
- c. Minimum staffing numbers for consultant surgeons and interventional radiologist;
- d. Specialist facilities including dedicated hybrid theatres and wards;
- e. Targets for key outcomes measures; and
- f. To work within a network, using a hub (in-patient unit) and spoke (out-patient and diagnostic units) delivery model.

The ability to meet the aforementioned criteria and the quality and safety issues of each option was

reviewed within the context of:

- a. Delivering a safe sustainable staffing rota and availability;
- b. Travel Times;
- c. Essential co-dependencies; and
- d. Current activity and possible impact of future population growth

### Short-listed options

The option appraisal process was agreed through the Programme Advisory Board and undertaken by the Clinical Reference group. The Clinical Reference Group appraised the long list of options and determined that two options should be short listed:

- **Option 5 – One Kent and Medway Hub with London Pathway**
- **Option 7 – Networked Kent and Medway Hubs with London Pathway**

These two options were reviewed in detail against the national specification and Vascular Society guidance. The review was undertaken by the Clinical Reference Group and included consideration for workforce, job planning, travel times, patient transfers, emergency and non-emergency take and patient safety and experience.

Further analysis identified that Option 7 would;

- not deliver the required volume of activity at the two arterial centres
- not resolve the derogation or deliver the national specification in a sustainable manner; and would
- require the closure of in-patient support at one site on certain periods potentially leaving post-surgical patients without consultant cover.

Option 5 was assessed as being the only option able to deliver the national specification requirements and was the only option able to create a sustainable centre of excellence in Kent and Medway. To achieve this, the clinical model will operate as a network across Kent and Medway with a single arterial centre (hub) and a more diverse, multi-site model for non-arterial centres. One of the non-arterial centres would become an enhanced non-arterial centre providing mainly outpatient and day-case services for the local population. Under this option, appropriate patients will continue to be referred from Kent and Medway to GSTH.

This preferred model for the future of vascular services in Kent and Medway required further clarification and public consultation as part of the wider East Kent Transformation Programme in relation to which hospital site becomes the single arterial centre (hub) and which site becomes the non-arterial centre.

Medway Foundation Trust has a single inpatient site; however, in East Kent there were three possible sites that could potentially host either an AC or an Enhanced NAC: QEQUH, WHH and K&C.

A site-based analysis was therefore undertaken to ascertain which of the East Kent Hospital sites would be most suited to become a Vascular Centre (either AC or NAC). This analysis considered:

- Whether the site has the necessary clinical adjacencies to support either an AC or a NAC;
- Existing estates constraints specific to the site in question
- Any possible flows of activity that may result from creating either an AC or a NAC at that site.

Following completion of the analysis of the long-listed options and the subsequent identification of the short-listed options, the options for more detailed analysis were as follows:

**Option 5A** - Single Arterial Centre at Kent and Canterbury Hospital and Enhanced Non-Arterial Centre at MFT

**Option 5B** - Single Arterial Centre at Medway, and Enhanced Non-Arterial Centre at EKHUFT

Under both short-listed options, patients would still have the opportunity to access the London tertiary centres for their treatment under patient choice.

In order to take forward the development of the recommendation and model of care, the Chief Executive Officers at EKHUFT and MFT worked together to agree the Kent and Medway Vascular Clinical Network arrangements<sup>6</sup>. This formal collaboration agreed the development of the Network through a Network Board with a number of key work streams and sub-groups.

The purpose of the sub-groups was to develop the clinical model and the governance arrangements (both clinical and information governance). The Finance work stream group provided the overarching support for the development of this business case as part of a Network solution. This group provided on-going financial and information support as required once the Network was up and running.

The Network solution has been jointly developed by the clinicians from MFT and EKHUFT in accordance with the national specification and Vascular Society guidance. It seeks to deliver the ambition providing world class vascular services across Kent and Medway which is both clinically and financially sustainable for the future. The detailed clinical model and clinical pathways have been produced and formally approved by the Network Steering Group and can be found at Appendix 3. These will need to be revisited and signed off by the Clinical Task & Finish Group, Steering Group, Programme Oversight Group and relevant Trust and Commissioning governance due to elapsed time and COVID-19.

Further development of the Vascular Surgical model will take place alongside the Kent and Medway Sustainability and Transformation Partnership (STP). The permanent solution for the Vascular Surgical model will form part of the business case for the STP once the Pre-Consultation Business Case has been approved and the Public Consultation for the STP has been completed. However, the East Kent Transformation Programme is likely to take around 5 years to deliver therefore NHS England has recommended that an interim arterial hub should be located in Canterbury at the Kent and Canterbury Hospital until such time as the longer-term transformation programme materialises as this site has the necessary resources to accommodate the additional inpatient activity.

Numerous Public and Patient Engagement events have been held over the last four years and the information gathered from the Events has been used to help inform these decisions. See Appendices 7 & 8

Details of the two preferred options for the interim arterial network model are now provided below alongside the do-nothing option.

## Short-listed Options

Do nothing	Maintain the current position
<b>Summary of Option</b>	Under this option acute inpatient vascular surgical services would remain as they currently are, provided at both Medway Maritime Hospital in Gillingham and at Kent and Canterbury Hospital in Canterbury. Neither hospital would become a single arterial centre for Kent and Medway. AAA procedures would continue to be performed solely at Kent and Canterbury.
<b>Activity Impact</b> (Demand & Capacity)	Under this option neither acute inpatient hospital site would serve the minimum population levels, nor deliver the minimum number of CEA procedures, therefore both hospitals would struggle to treat sufficient number of clinical cases required by the national service specification. Consequently, both Trusts would remain under Commissioner derogation.

<sup>6</sup> See Appendix 11

<b>Workforce Impact</b>	<p>The workforce would continue to be split across two inpatient sites with Medway Hospital not seeing the necessary levels of activity. This option also does nothing to improve the current intensity of on-call commitments and consequently does nothing to improve the recruitment opportunities. Consultants will continue to have to cover unsustainable on-call rota commitments.</p> <p>At Medway Hospital, the Vascular surgical service will continue to struggle to secure junior doctors support (Jnr Doctors have been temporarily removed from the service due to lack of supervision and oversight. These have been replaced by substantive doctors to support the service for the immediate future).</p>
<b>Income Impact</b>	None – although income may decrease if substantive staff are lost. This is in-line with the current issues with recruitment across the Kent & Medway, in particular at MFT.
<b>Cost Impact (Revenue)</b>	Likely increase in costs due to loss of substantive staff as a result of unsustainable rota scheduling
<b>Benefits of Implementation</b>	NHS England, the Vascular Society and GIRFT have all concluded that this option is optimal. There is a financial benefit to the system of maintaining the status quo, however it is felt that, for the clinical reasons highlighted, this is not the optimum solution.
<b>Quality &amp; Safety Impact</b>	<p>This option will not support the sustainable delivery of evidence-based models of care that aim to improve patient diagnosis and treatment. Ultimately there will be no ability to improve mortality and morbidity from vascular disease across Kent and Medway. The way vascular surgical services are currently configured in Kent and Medway is inconsistent with the need to deliver services as part of a vascular network.</p> <p>This option would mean that arterial surgery would not be delivered in an arterial centre serving a large enough population. As a consequence, clinicians would not undertake adequate volumes of core Vascular procedures to maintain their skills.</p> <p>Consultants would continue to have to participate in unacceptable on call rotas, which is unsustainable.</p>
<b>Risks of Implementation</b>	NHS England, the Vascular Society and GIRFT have all concluded that this option is not optimal. Risks of maintaining the status quo are clinical and quality risks as outlined.

<b>Option 5A</b>	<p><b>Preferred Option:</b></p> <p><b>Interim Solution of a Single Arterial Centre at Kent and Canterbury Hospital and Enhanced Non-Arterial Centre at MFT</b></p>
<b>Summary of Option</b>	<p>Under this option, the interim solution of a single Arterial Centre would be based at the Kent and Canterbury Hospital in Canterbury, East Kent. The Arterial Centre would be the single hospital within the network that provides all inpatient care for both elective and emergency vascular surgery, providing all types of vascular surgery and vascular interventional radiology. This Arterial Centre would be the only hospital in Kent and Medway that has on site a 24/7, full, year-round specialist vascular team to manage all acute inpatient elective and emergency vascular surgery. The Arterial Centre would also be the managerial centre for the Kent and Medway Vascular Network.</p> <p>Medway Hospital (MFT) would be the Enhanced non-arterial vascular centre and will form an integral part of the Networks solution model of care. This would be resourced to provide local vascular services that do not require a 24/7 workforce presence and inpatient based vascular interventions. It would have an enhanced weekday presence of a specialist vascular team to support other acute services within the hospital. This hospital will have interventional radiology (IR) services to support day case vascular interventions. This IR service would also support the IR needs of non-vascular services. Day-case services would be provided to support activity within the vascular network e.g.</p>



	<p>renal access surgery and on-going fistula management support interventions and it would offer a comprehensive vascular diagnostic and outpatient ambulatory care service.</p> <p>The Network model would be supported by Non-enhanced non-arterial hospitals. Hospitals that provide acute care services (typically medicine, surgery, obstetrics), that at times will require on site vascular advice and will require direct contact links to the arterial vascular centre for 24/7 support for vascular advice and patient management. These sites, which include Maidstone Hospital, William Harvey Hospital and Queen Elizabeth The Queen Mother Hospital, would not have a daily specialist vascular presence; however, the ability to offer full vascular diagnostics and outpatient services for the local population will be available. The Non-enhanced non-arterial hospitals would deliver all out of hospital care and would be delivered through the existing Kent and Medway hospitals' buildings at these sites. These hospital sites would deliver a range of services that seek to keep care as close to home as possible for patients and would include:</p> <ul style="list-style-type: none"><li>• Outpatients clinics; i.e. multi-disciplinary clinics, condition specific clinics, one stop shop clinics, nurse led and consultant clinics;</li><li>• Pre- and post-operative care;</li><li>• Ongoing monitoring and management of vascular conditions e.g. Peripheral vascular disease;</li><li>• Diagnostics and tests; and</li><li>• Day surgery where appropriate</li></ul> <p>Patients would still have the opportunity to access the London tertiary centres for their treatment under patient choice.</p>																						
<b>Activity Impact</b> (Demand & Capacity)	<p>The clinical model for the interim solution would see the creation of a vascular network across Kent and Medway with a single arterial inpatient centre (hub) at K&amp;CH, an enhanced non-arterial centre at MFT providing outpatient, day-case surgery and diagnostic services, and a number of supporting sites that would provide outpatient services and diagnostics for their local population.</p> <p><b>All inpatient procedures that would be undertaken at K&amp;CH once the network goes live. All day cases and outpatient appointments will remain locally at each Trust site.</b></p> <table><tr><th>Activity</th><th>2018/19</th><th>2019/20 (Full Year Effect)</th><th>Total (12-month average)</th></tr><tr><td>EKHUFT Current Total</td><td>680</td><td>740</td><td>700</td></tr><tr><td>EKHUFT New Total</td><td>1,066</td><td>1,149</td><td>1,091</td></tr><tr><td>% Change</td><td>57%</td><td>55%</td><td>56%</td></tr></table> <p><b>Table 3.1 EKHUFT current and new total inpatients</b></p> <p>The figure of 1,091 (in the above table) has been used to calculate the theatre capacity required in the future. More up to date information is not available because of the impact from COVID-19 on hospital services.</p> <p><b>Total Activity by PoD</b></p> <table><tr><th>PoD</th><th>EKHUFT New Activity Total</th></tr><tr><td>Day-case</td><td>562</td></tr><tr><td>Elective Inpatient</td><td>426</td></tr></table>	Activity	2018/19	2019/20 (Full Year Effect)	Total (12-month average)	EKHUFT Current Total	680	740	700	EKHUFT New Total	1,066	1,149	1,091	% Change	57%	55%	56%	PoD	EKHUFT New Activity Total	Day-case	562	Elective Inpatient	426
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PoD	EKHUFT New Activity Total																						
Day-case	562																						
Elective Inpatient	426																						

PoD	EKHUFT New Activity Total
Emergency Inpatient	724
OP FA	4,974
OP FU	5,181
OP Procedure	94

**Table 3.2 EKHUFT new totals by PoD****Procedures**

The number of procedures shown in the table below have been agreed by NHS England Specialised Commissioning working in conjunction with the Business Intelligence Team and Consultants at EKHUFT. The table shows the number of procedures undertaken at EKHUFT and MFT in 2019/20.

Procedure Type	EKHUFT 2019/20 (Full Year)	MFT 2019/20 (Full Year)
Open Aortic Aneurysm	52	10
EVAR Aortic Aneurysm	54	20
Subclavian Artery	0	4
Lower Limb - Reconstruction Surgery	48	48
Lower Limb - Amputation (Major)	78	66
Lower Limb - Amputation (Minor)	70	98
Emergency Femoral Artery	0	2
Elective Iliac Artery Ops	4	0
Carotid Endarterectomy	32	10
IR - Angioplasty	270	94
Renal Access	128	46
Other	4	11
<b>Total inpatient activity</b>	<b>740</b>	<b>409</b>

**Table 3.3 EKHUFT and MFT activity by type of procedure**

The total number of procedures figure does not match the figure shown for inpatient activity because a number of patients will have had more than one procedure during their inpatient stay.

Detailed analysis of the activity data has produced a definitive set of procedures which relate to inpatient care. The proposed move of all inpatient vascular surgical activity from MFT to K&CH will therefore impact around 400 procedures per year.

**Beds**

At K&CH, the number of occupied bed days has risen to a high of nearly 6,000 bed days in 2018/19. This means on average the vascular surgical inpatient activity occupied around 20 beds (at 85% occupancy).

The demand and capacity modelling shows that the move of 409 inpatient vascular cases per year from MFT to K&C. Working on 85% bed occupancy this activity would require around 11 beds. Therefore, the proposed arterial hub at Kent and Canterbury Hospital will require a total of 31 inpatient beds.

Current funded beds at K&C	20
Additional beds needed	11
Total beds required (85% occupancy)	31

**Table 3.4 Vascular inpatient bed current and future required**

The current dedicated Vascular inpatient ward at Kent and Canterbury Hospital is Kent Ward. Kent Ward currently has 20 funded inpatient beds and 3 unfunded inpatient beds. It also has a 6 bedded area which is currently allocated for day case surgery and admissions. In the future, these 6 beds would become inpatient beds dedicated for inpatient Vascular Surgery and the unfunded beds would be appropriately funded taking the total number of funded inpatient beds from 20 to 29.

It is recognised that the LOS at Medway is higher than that of EKHUFT, as such it is not expected that the gap in beds required will be sought through efficiencies in the system. It is unknown at present if the increased requirement for repatriation or the growth in amputations requiring 2 beds spaces will affect EKHUFT LOS. As such, the business case is looking to fund converting the 6 bedded trolley bays on Clarke (adjacent ward) into an inpatient space to accommodate peaks in demand.

The 12 trolley bay spaces will be re-provided in the former Ambulatory Care area located between the Urgent Treatment Centre and the Radiology department.

EKHUFT will be looking to repatriate patients that have had a major limb amputated back to MFT for their ongoing rehabilitation once they no longer need to be under the direct care of the Vascular surgical team. The clinical pathway for these patients enables them to be repatriated under Medway Hospital's diabetic team. This would also help to free up inpatient bed capacity at the arterial centre. A robust process must be in place to ensure the timely transfer of these patients.

The demand and capacity modelling uses the following data and assumptions:

- Data taken from NHSE NAC dataset.
- Theatre and bed capacity provided internally and using the same totals as the initial internal piece of work.
- Percentages of theatre splits from the initial internal work.
- The additional demand and capacity is based on the methodology used in the initial work using an 'as is percentage growth' method.

### **Theatres**

Table below shows the theatre capacity required for all vascular activity. Currently weekly theatre capacity equates to 7 sessions and in the future the service will require 11 sessions. These additional 4 sessions will be provided through the move of some general surgical main theatre sessions from the K&C site to QEQM (2.5 sessions). The additional IR theatre sessions will be created with the opening of the second IR theatre. The capacity will temporarily be created through elongated days until both theatres are in use.

<b>Main Theatre</b>	<b>Sessions<sup>7</sup></b>
Current annual Capacity	364
Current weekly Capacity	7
Capacity Growth (annual)	203.49
New Total Capacity required (annual)	567.49
New Total Theatre Capacity required (per week)	4
Weekly Total Sessions required	11

**Table 3.5 Theatre Current Capacity & Requirements****Theatre 6 (EVT) and Interventional Radiology**

	<b>Theatre 6 (Joint Vascular and IR)</b>	<b>Theatre 6 (Vascular- related IR)</b>	<b>Theatre 6 (IR)</b>	<b>Total</b>
<b>Current annual utilisation</b>	104	139.88	358.8	602.68
<b>Current weekly capacity</b>	2	2.69	6.9	8.9
<b>Capacity annual growth</b>	58.14	30.23	-	88.37
<b>New total annual capacity required</b>	162.14	170.11	-	332.25
<b>New weekly total capacity required</b>	3.13	3.27	-	6.4
<b>Weekly capacity Gap to fill</b>	1.13	0.58	-	1.71

**Table 3.6 Theatre 6 and Interventional Radiology**

According the theatre utilisation dashboard<sup>8</sup>, K&C theatre six (EVT) was used on average 2 sessions a week for vascular activity. Interventional Radiology activity used 6.9 (7) sessions a week, of which 2.69 sessions was Vascular-related IR activity. Rounding up, therefore theatre six (EVT) was utilised for a total of 8.9 (9) sessions a week. The unused sessions are for MDT and is used ad-hoc when required.

The analysis shows that 2 (1.71) extra sessions will be needed in theatre six to accommodate activity which will be moving from MFT. Therefore, an average of 10.61 sessions a week will be needed to accommodate all activity from EKHUFT and MFT. Of course, a proportion of that activity will be done either at weekends or out of hours.

**ITU / Critical Care**

HDU bed activity is not indicated separately on the Trusts PAS system. It is anticipated that an additional 2 HDU beds are required. There is sufficient bed space for 2 additional beds in critical care which will be funded as part of this business case.

**Outpatients**

The following data from 2019/20 is for Vascular Outpatients, split by New and Follow Up. It shows the breakdown by Trust of who delivered the OPD activity. This outpatient activity will continue to be provided in its current locations and it will not change as a result of the creation of the Kent and Medway Vascular Network model. EKHUFT OP

<sup>7</sup> **Activity modelling assumptions:**

That all sessions have been entered onto Theatreman.

That all activity under IR and Vascular that currently takes place in KCH theatre 6 is appropriate.

An all-day session counts as two sessions.

This does not include cancelled sessions.

This is an average figure and it is assumed variation can be absorbed within operational working practices.

<sup>8</sup> weekly data between week commencing 31/12/18 and 30/12/2019 (53 weeks)

	<p>procedures are coded as OP Follow Up and are therefore not separated.</p> <table><tr><th>Site</th><th>OP New</th><th>OP Follow Up</th><th>OP Procedure</th><th>Grand Total</th></tr><tr><td>EKHUFT</td><td>3,641</td><td>3,651</td><td>0</td><td>7,294</td></tr><tr><td>MFT</td><td>1,333</td><td>1,530</td><td>94</td><td>2,957</td></tr><tr><td>Total</td><td>4,974</td><td>5,181</td><td>94</td><td>10,251</td></tr></table> <p><b>Table 3.7 Outpatient activity at MFT and EKHUFT</b></p>	Site	OP New	OP Follow Up	OP Procedure	Grand Total	EKHUFT	3,641	3,651	0	7,294	MFT	1,333	1,530	94	2,957	Total	4,974	5,181	94	10,251
Site	OP New	OP Follow Up	OP Procedure	Grand Total																	
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MFT	1,333	1,530	94	2,957																	
Total	4,974	5,181	94	10,251																	
<b>Workforce Impact</b>	<p>Under the proposed interim solution, the vascular surgical team who are currently employed by Medway Hospital NHS Foundation Trust will all transfer over to East Kent Hospitals University NHS Foundation Trust under TUPE arrangements. This includes 4 consultant vascular surgeons, 1 ST Registrar, 2 Vascular Nurse Specialists and 3 supporting administrative staff. Other teams that provide a supporting service for the vascular surgical service will continue to provide these services under a number of service level agreements. Details of staff transferring and their clinical commitments are provided at Appendix 2.</p> <p>Some members of Medway Hospital's anaesthetic team and interventional radiology team have expressed a desire to continue to participate in the provision of vascular surgical care at K&amp;CH but do not wish to formally transfer their employment to K&amp;CH. Arrangements are being made for those staff to participate in the vascular network using honorary contracts and service level agreements. All appropriate clinical governance arrangements have been set in place to support this activity.</p>																				
<b>Trust Income Impact</b>	<p>EKHUFT: As the service is embedded there should be an increase in the volume of patients seen and treated as waiting lists are reduced to expected levels. This is not expected to result in a material increase in cost to commissioners on an annual basis.</p> <p>MFT: There are potential stranded costs that need to be mitigated via the CCG commissioning replacement activity for the capacity in Medway Maritime that this case enables. It has been agreed between MFT and CCG commissioners that there will be no stranded costs because this capacity will be utilised by other services in the future.</p>																				
<b>Overall Service Level Impact (SLR Profitability)</b>	<p>EKHUFT: If investment is approved there will be no service contribution. No investment will result in an adverse impact of £342k.</p> <p>MFT: If alternative services are commissioned to absorb the released capacity there will be an adverse impact of £124k. It has been agreed between MFT and K&amp;M CCG that there will be no stranded costs because this capacity will be utilised by other services in the future.</p>																				
<b>Health Economy impact</b>	<p>The CCG need to invest in the following areas;</p> <table><tr><td>Additional cost of patient transport</td><td>£125k</td></tr><tr><td>Impact of shift from MFT blended price to EKHUFT tariff price</td><td>£367k</td></tr><tr><td>Investment in service</td><td>£342k</td></tr><tr><td><b>TOTAL</b></td><td><b>£834k</b></td></tr><tr><td></td><td></td></tr></table>	Additional cost of patient transport	£125k	Impact of shift from MFT blended price to EKHUFT tariff price	£367k	Investment in service	£342k	<b>TOTAL</b>	<b>£834k</b>												
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<b>TOTAL</b>	<b>£834k</b>																				
<b>Benefits of Implementation</b>	<p>Under this option, service would become sustainable and viable. The specialist workforce (Consultant surgeons, IR Consultants and specialist nurses and the wider multi-disciplinary team) would all be located on a single site meaning that they would have sufficient patients to maintain their specialist skills. There would be 24/7 on site vascular surgery rotas staffed by the right number of specialist staff.</p> <p>The option would enable the service to have a specialist team to manage patients with vascular disease that includes vascular surgeons, interventional radiologists, specialist</p>																				

	<p>nurses, vascular scientists, diabetes specialists, stroke physicians, cardiac surgeons, orthopaedic surgeons, and emergency medicine amongst other specialties to provide a comprehensive multi-disciplinary service.</p> <p>Staff would be better able to develop their skills and expertise. Productive and efficiency would improve as there would be less duplication and waste. It also supports opportunities for training, research and innovation and this all impacts on improvements in patient care.</p>
<b>Quality &amp; Safety Impact</b>	<p>All vascular inpatients would be treated on a dedicated vascular ward by dedicated vascular nursing staff.</p> <p>Patients requiring major amputations would be treated in this single arterial centre which would have all the necessary skills and resources to manage their care and access to the most modern techniques. There would also make it easier to make improvements to mortality and morbidity rates for people with vascular disease and improving survival rates following hospitalisation.</p> <p>The preferred option would also enable early intervention and treatment to achieve regional reductions in the incidence of stroke due to carotid artery disease and leg amputation due to peripheral arterial disease.</p> <p>The preferred option also would enable working jointly with the diabetic and podiatry service to optimise care, minimise tissue loss, prevent amputation, standardise methods and promotion of best practice across the clinical teams. It also means that opportunities to reduced length of stay for patients and improving pathway links with community providers to support timely repatriation of patients following surgery would be more possible.</p> <p>The above costing also includes a number of service enhancements that would improve the service offering to patients in Kent and Medway and ensure that services are timelier and more sustainable. The Vascular Nurse Practitioners are vital to the running of the Vascular services across Kent and Medway. The VNP deliver independent clinics alongside the vascular surgeon teams support the vascular doctors and ward staff. The team are responsible for delivering a large amount of the vascular outpatient activity, pre-assessment, supporting inpatients and the emergency pathways. The teams are skilled in the assessment of the acute and chronic vascular patients. This includes undertaking a physical assessment, recording of a health history, interpretation of Doppler assessments and planning appropriate treatment. The current VNP teams are at risk of losing their workforce over the next 2-5 years through retirement with no clear plan on training and replacing the highly skilled staff. The business case included the funding to support recruitment for two full time band 6 in a development posts to train up with the required competencies to become a band 7 in the future.</p> <p>The EKHUFT Vascular Department currently pay an agency sonographer to run an all-day clinic once a week at KCH. The role is highly specialised and we do not currently have the skills within the Trust to support this activity. The vascular team often require specialist ultrasound scans at other times through the week but are unable to access them. The business case includes the funding to recruit a full-time vascular sonographer to the department. This removes the agency costs of £426 per day which is currently paid. The sonographer would run all day clinics at WHH, QEOM and K&amp;C. The clinics would comprise of the routine vascular scans, AAA surveillance patients and inpatients awaiting scans which often see delays to their treatment and/or discharge. This post would also support a reduction to the departmental costs. Ultrasound scans can be carried out on some patients post EVAR surgery instead of CT scans. The reduction CT scans is likely to be around 10 per month. This also provides a health benefit to the patient as they would not be exposed to further radiation. There is a potential to develop</p>

	<p>a peripheral arterial duplex scan service, similarly a specialist post-carotid surgery scan service.</p> <p>The Vascular service will see a reduction of trainee doctors over the coming years due to the changes in the training programme. As a Vascular hub we must ensure there is a safe, stable and sustainable workforce in place to deal with the demand. The addition of two Associate Specialist posts will future proof the on-call and activity required of the middle grade doctor tier. This will also guarantee the service does not need to use high cost locums at times of trainee shortages.</p> <p>The current outpatient waiting times at Medway for Vascular services are at unsustainable levels in order to achieve 18weeks. By combining resources, we will be able to address the long waiting times and improve the referral to treatment performance.</p> <p>Inpatient services will need to be reconfigured on the K&amp;C site in order to support the increase in vascular inpatient activity. Kent ward will remove the trolley bay to create an additional 6 beds, the space is currently used for vascular theatre admissions. Clarke ward will also lose their Urology admission area to facilitate another additional 6 beds required for vascular inpatients. The expansion of the bed base must be supported by a new admissions area on site for Vascular and Urology patients. This admission unit will create streamlined processes for theatre admissions, reducing delays to theatres, improved communication pathways and saves time for medical teams as patients are all in one place. This will allow the ward staff to concentrate on high acuity patients on the ward and discharges.</p>
<b>Risks of Implementation</b>	MFT staff choose not to TUPE resulting in EKHUFT having to employ costly locum and agency staff.

<b>Option 5B</b>	<b>Interim Solution of a Single Arterial Centre at Medway, and Enhanced Non-Arterial Centre at K&amp;CH</b>
<b>Summary of Option</b>	<p>Under this option, the single Arterial Centre would be based at Medway Hospital. The Arterial Centre would be the single hospital within the network that provides all inpatient care for both elective and emergency vascular surgery, providing all types of vascular surgery and vascular interventional radiology. This Arterial Centre would be the only hospital in Kent and Medway that has on site a 24/7, full, year-round specialist vascular team to manage all acute inpatient elective and emergency vascular surgery. The Arterial Centre would also be the managerial centre for the Kent and Medway Vascular Network.</p> <p>Under this option, Kent and Canterbury Hospital would be the Enhanced non-arterial vascular centre and would form an integral part of the Networks solution model of care. This would be resourced to provide local vascular services that do not require a 24/7 workforce presence and inpatient based vascular interventions. It would have an enhanced weekday presence of a specialist vascular team to support other acute services within the hospital. This hospital would have interventional radiology (IR) services to support day case vascular interventions. This IR service will also support the IR needs of non-vascular services. Day-case services would be provided to support activity within the vascular network e.g. renal access surgery and on-going fistula management support interventions and it would offer a comprehensive vascular diagnostic and outpatient ambulatory care service.</p>

	<p>The Network model would be supported by Non-enhanced non-arterial hospitals. Hospitals that provide acute care services (typically medicine, surgery, obstetrics), that at times would require on site vascular advice and would require direct contact links to the arterial vascular centre for 24/7 support for vascular advice and patient management. These sites would not have a daily specialist vascular presence, however, the ability to offer full vascular diagnostics and outpatient services for the local population would be available. The Non-enhanced non-arterial hospitals would deliver all out of hospital care and would be delivered through the existing Kent and Medway hospitals' buildings at these sites. These hospital sites would deliver a range of services that seek to keep care as close to home as possible for patients and would include:</p> <ul style="list-style-type: none"> <li>• Outpatients clinics; i.e. multi-disciplinary clinics, condition specific clinics, one stop shop clinics, nurse led and consultant clinics;</li> <li>• Pre- and post-operative care;</li> <li>• Ongoing monitoring and management of vascular conditions e.g. Peripheral vascular disease;</li> <li>• Diagnostics and tests; and</li> <li>• Day surgery where appropriate</li> </ul> <p>Patients would still have the opportunity to access the London tertiary centres for their treatment under patient choice.</p>
<b>Workforce Impact</b>	<p>The vascular surgical team who are currently employed by EKHUFT would all transfer over to Medway NHS Foundation Trust under TUPE arrangements. This includes 3 consultant vascular surgeons, 2 ST Registrar, 5 Vascular Nurse Specialists and 6 supporting administrative staff. Other teams that provide a supporting service for the vascular surgical service would continue to provide these services under a number of service level agreements.</p>
<b>Income Impact</b>	<p>Additional cost to commissioners of MFT providing service due to higher MFF = £250k</p>
<b>Overall Service Level Impact (SLR Profitability)</b>	<p>Data not available</p>



## Section 4 Options scoring process

A set of Evaluation Criteria was developed as part of the STP against which all future proposed clinical models are being and will be evaluated. The full evaluation criteria were developed by the STP hospital care work-stream. These have built on patient, public and carer insight over recent years around what is important to people about local services, with clinical leadership and involvement in the design and thinking, and some on-going testing and discussion with wider stakeholder audiences and groups across Kent and Medway.

The development and progress of the design phase for the evaluation criteria has regularly been reported to the STP Clinical Board, the Patient and Public Advisory Group (or its predecessor arrangement the Patient and Public Engagement Group) and onwards to the STP Programme Board.

The evaluation criteria model consisted of 6 elements, each with a set of sub-criteria against which each of the short-listed options were evaluated. The evaluation criteria were used to evaluate the two shortlisted options for Vascular Surgical services in Kent and Medway.

Criteria	Sub-criteria	Evaluation question
<b>1</b> Quality of care for all	<ul style="list-style-type: none"> <li>Clinical effectiveness and responsiveness</li> <li>Patient experience</li> <li>Clinical co-dependencies</li> <li>Clinical outcomes</li> <li>Safety</li> </ul>	<ul style="list-style-type: none"> <li>Does the option provide improved delivery against clinical and constitutional standards, access to skilled staff and specialist equipment, comparison of current clinical quality of sites?</li> <li>Which option would provide a better experience for patients using patient experience surveys and looking at the quality of the buildings and facilities?</li> <li>What are the clinical co-located services required for vascular and other services that required vascular inputs?</li> <li>Which option would provide a better clinical outcomes for patients using mortality rate and re-admission rates?</li> <li>What is the expected impact on excess mortality, serious untoward incidents and patient harm?</li> </ul>
<b>2</b> Access to care for all	<ul style="list-style-type: none"> <li>Distance and time to access services</li> <li>Service operating hours</li> <li>Patient choice</li> </ul>	<ul style="list-style-type: none"> <li>Do any options keep to a minimum the increase in the average or total time it takes people to get to hospital by ambulance, car (at off-peak and peak times) and public transport?</li> <li>What is the ability of model to facilitate 7 day services and improved access to care out of hours?</li> <li>Which options would give people in Kent the greatest choice of hospitals for each service under consideration across the greatest number of trusts?</li> </ul>
<b>3</b> Affordability and value for money	<ul style="list-style-type: none"> <li>Profit/Loss</li> <li>Affordability to commissioners</li> <li>Capital cost to the system</li> <li>Meet license conditions</li> </ul>	<ul style="list-style-type: none"> <li>What is the Profit/Loss of the options?</li> <li>What is the affordability to commissioners?</li> <li>Which options would have the lowest capital costs (cost of buildings and equipment)?</li> <li>Does the option meet regulatory requirements e.g. surpluses generated by each Foundation Trust?</li> </ul>
<b>4</b> Workforce	<ul style="list-style-type: none"> <li>Scale of impact</li> <li>Sustainability</li> <li>Impact on local workforce</li> </ul>	<ul style="list-style-type: none"> <li>What is the potential impact on current medical and non medical staff and retraining / relocation required?</li> <li>What is the likelihood of each option to be sustainable from a workforce perspective, facilitating 7 day services and taking into account recruitment challenges and change in what work force does i.e. ability to ensure sufficient people with the right skills in the right places?</li> <li>What is the potential impact on staff attrition due to change?</li> </ul>
<b>5</b> Deliverability	<ul style="list-style-type: none"> <li>Expected time to deliver</li> <li>Co-dependencies with other strategies</li> </ul>	<ul style="list-style-type: none"> <li>How easy will it be to deliver change in 3-5 years?</li> <li>How well does each align with other strategic changes and provide a flexible platform for the future?</li> </ul>
<b>6</b> Research and Education	<ul style="list-style-type: none"> <li>Disruption to education &amp; research</li> <li>Support current &amp; future education &amp; research delivery</li> </ul>	<ul style="list-style-type: none"> <li>Which options best fit with current research and education to minimise disruption in these areas?</li> <li>Which options best support current and developing research and education?</li> </ul>

*Table: Evaluation criteria used to evaluate the short-listed options*

On 15th August 2017 an evaluation process was undertaken to appraise the remaining two options using the evaluation criteria. The evaluation process was undertaken by the following representatives from MFT and EKHUFT:

- K&M Lead Vascular consultant
- Deputy Chief Executive and the Director of Strategic Development and Capital Planning - EKHUFT
- Director for Surgical Services MFT
- Medical Director MFT
- Consultant Interventional Radiologist and Deputy Vascular Network Lead MFT
- Divisional Director for Surgical Services EKHUFT

- Senior Strategic Development Manager and Programme Manager for the Kent and Medway Vascular Network – EKHUFT
- Deputy Chief Nurse and Deputy Director of Quality EKHUFT
- General Manager Surgery – EKHUFT
- General Manager for Emergency Surgical Services – MFT

The evaluation criteria were examined to allow a comprehensive evaluation of the two options enabling the team to score each of the options against the criteria. The analysis for each option was completed by analysing each evaluation criteria in details through the sub-criteria which were measured via specific evaluation questions.

The outputs of the option evaluation process are shown in the table below.

### Scoring of each option against the criteria

Criteria	Sub-criteria	Scores		Rationale
		OPTION A	OPTION B	
1	Quality of care for all			
		+2	+2	Clinical effectiveness, patient experience and clinical outcomes were not clear differentiators between the two options even when compared as part of the National Vascular Registry. The GIRFT report did not highlight patient experience as an issue so is also not a differentiator. Creating the single arterial centre would improve all of these metrics regardless of which option was implemented
		+1	+1	
		+2	+2	
		+2	0	Clinical co-dependencies at EKHUFT would be better under the STP plans and it was felt that clinical outcomes could also be improved if the Centre was in East Kent due to having all the correct clinical adjacencies present.
		+2	+1	
2	Access to care for all			
		0	-1	It was felt that having the centre at MFT would provide slightly poorer access for patients than at present. Having the centre in East Kent would not improve or worsen distance and access times.
		0	0	
		+1	+1	Service operating hours would be improved regardless of which option was selected.  Patient choice was not considered to be a differentiator between the two options
3	Affordability and value for money			
		-2	-2	It was agreed that further work needed to be undertaken on the affordability elements of the business case.
		+1	0	
		-1	-1	A lower EKHUFT Market Forces Factor was considered to be beneficial against affordability to commissioners.  Capital cost to the system was the same for both options and therefore not a differentiator
		0	0	
				Neither option would make meeting the license conditions any easier or worse.

4	Workforce	• Scale of impact	+1	+1	It was felt that medical staff would mainly be moving under the preferred option therefore the impact would be relatively small and similar under each option. Both options would provide opportunities to improve training, recruitment and retention and help the service become more sustainable; similar under each option. There may be a negative impact on local staffing as people may chose not to move with the service but this would be the same under each option
		• Sustainability	+2	+2	
		• Impact on local workforce	-1	-1	
5	Deliverability	• Expected time to deliver	+1	+1	It was felt that each option should be delivered within the same timescale (between 3 to 5 years). Therefore there was no difference between the two options It was felt that EKHUFT was further forward with its development of a clinical strategy under the STP with a clear emerging preferred option defined and timelines prescribed for public consultation. Vascular services form part of that strategy. MFT are not so well advanced with their plans under the STP
		• Co-dependencies with other strategies	+2	+1	
6	Research and Education	• Disruption to education & research	0	0	Neither option will have and disruptive impact on research and education therefore both options scored 0.  Both options should enhance future education and research delivery but again, no differentiation between the two options.
		• Support current & future education & research delivery	+2	+2	
Total scores			15	9	<b>CONCLUSION</b> - Option A scores higher than Option B.  The preferred option is therefore to create a single Arterial Centre at a site in East Kent identified as the Major Emergency Centre (MEC) with specialist services, and to create an Enhanced Non-Arterial Centre at MFT

*Table: Scoring of the short-listed options using the evaluation criteria*

The conclusion from the options appraisal process identified Option 5A as the preferred option - Single Arterial Centre at the Kent and Canterbury Hospital with an Enhanced Non-Arterial Centre at MFT. Even with the time that has passed and with COVID-19 this option is still the preferred option for the future of vascular service in Kent & Medway.

<b>Section 5</b>	<b>Travel impact on affected patients under the preferred option</b>
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A travel analysis has been undertaken using the postcodes of patients currently accessing inpatient vascular care at Medway Hospital. Postcodes have been taken from the dataset provided by NHS England Specialised Commissioning.

Patients that currently receive inpatient care at Medway Hospital will, in the future, need to travel further to receive their inpatient care at Kent and Canterbury Hospital.

The table below shows the difference in travel times for this group of patients. The analysis shows the average time it currently takes for vascular inpatients to access Medway hospital alongside the average travel time for the same patients (from the postcodes of Medway patients) to access Kent and Canterbury Hospital.

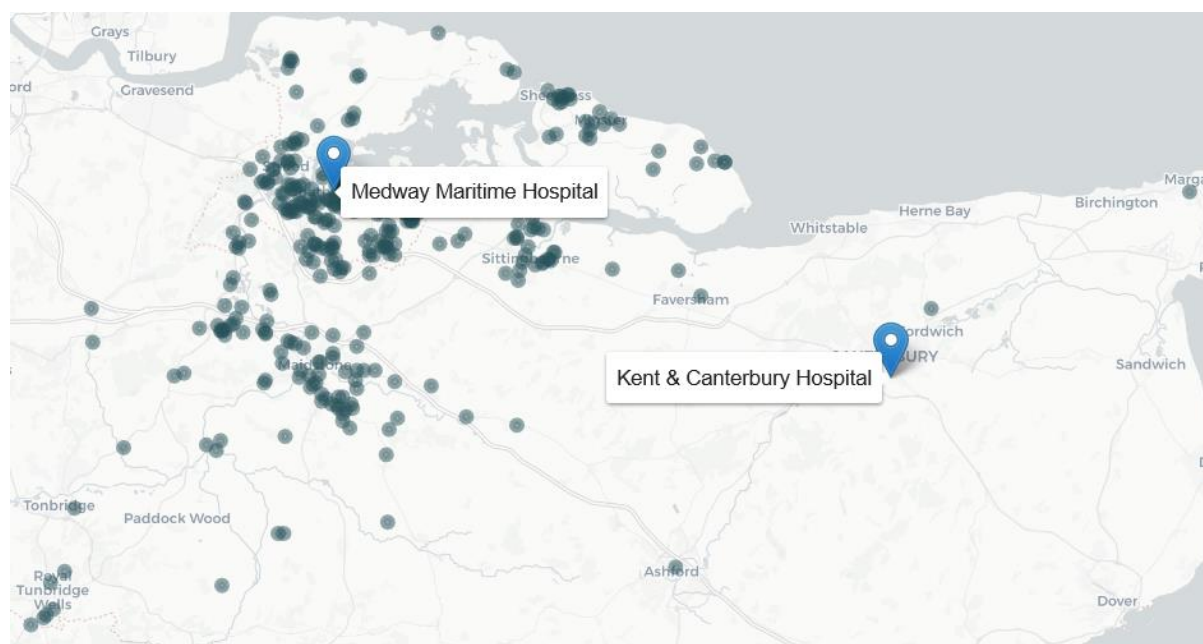
		Range	
Travel Time Analysis	Average Time (minutes)	Min Time (minutes)	Max Time (minutes)
MFT Driving AM Peak Time	21.95	3.49	90.55
K&CH Driving AM Peak Time	43.87	16.11	88.49

For the group of patients analysed (patients who are currently accessing inpatient vascular care at Medway Hospital) the average travel time will increase from 22 minutes to 44 minutes.

Patients are currently spending between 3 minutes and 91 minutes (the range) travelling to Medway Hospital in peak time for their inpatient vascular care. Using the same set of patients, the travel time range would be between 16 minutes and 88 minutes to travel to K&CH.

Currently, patients from the Maidstone area of west Kent that require vascular surgical care receive their care at Medway Maritime Hospital. The average travel time for those patients to access MFT is around 32 minutes. Under the preferred option, these patients will have an average travel time of around 53 minutes.

The map below shows that not all of these patients originate from the Medway area. There are 7 patients whose postcodes are closer to Canterbury than Medway therefore the time taken for these patients to get to Medway is currently longer than it would be for them to get to Canterbury in the future.



**Map 1** Originating postcode of patients accessing MFT for their inpatient vascular treatment (2018/19)

In the future, 60% of the patients' postcodes (from those patients currently receiving inpatient care at MFT) will be able to access K&CH in under the 43 minutes average travel time.

#### Distance data

Distance Analysis	Average Distance	Range	
		Max Distance	Min Distance
MFT Driving Distance	14.7 km	69.1 km	5.8 km
K&CH Driving Distance	48.3 km	91.7 km	8.9 km

The average distance travelled by patients who are currently accessing their inpatient vascular care at Medway is currently 14.7 km. Some patients are travelling 69 km for their care whilst others travel just 5.8 km.

In the future, the average distance that patients will need to travel to access inpatient care at Canterbury is 48.3 km.

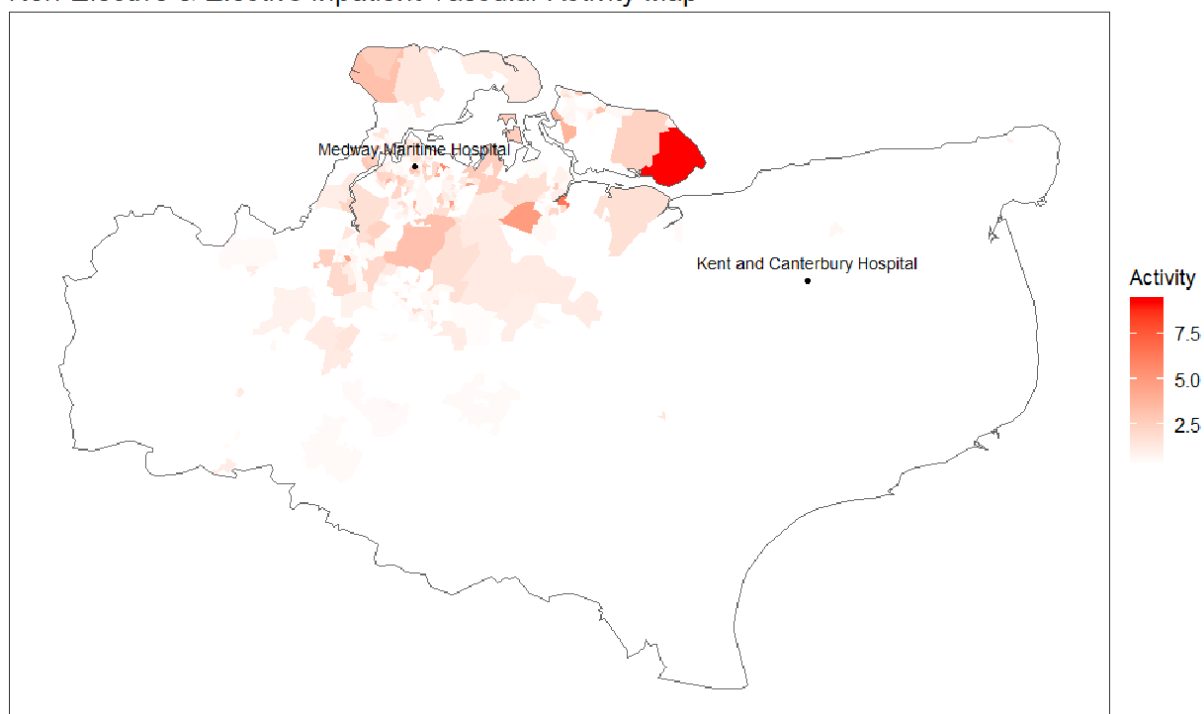
The analysis of the current patient data (patients who are currently accessing their inpatient vascular care at Medway) shows that the maximum travel distance would be 91.7 km and the minimum distance would be 8.9 km. There are 7 postcodes that are closer to K&C than they are to Medway and for these patients the travel distance would be much shorter than at present.

It is important to note that the majority of the cohort of patients on which this analysis focuses are predominantly patients who are currently accessing vascular inpatient care at their local hospital in Medway. It is therefore only natural that the distance and time taken to travel to K&C in the future will be longer (as it is not their local hospital).

#### Heatmap

The heatmap below provides information about the number of patients that are currently accessing their vascular inpatient care at Medway.

## Non-Elective &amp; Elective Inpatient Vascular Activity Map



**Map 2** Heatmap showing originating postcodes of patients accessing MFT for their inpatient vascular treatment (2018/19)

## Section 6 – Workforce requirement and support

This section gives an overview of the combined workforce demand for the interim vascular service upon go live. Vacancies at the time of this report are highlighted alongside recruitment strategies to support supply of labour to deliver the service. In line with Our NHS People plan we will support all affected colleagues to ensure achievement of the best place to work now and as part of a new model.

Risks and issues are included in this section for consideration and readiness. An engagement plan is proposed to support the transition and integration of staff in both organisations. Timescales to support the transfer are provided to address the preferred and minimum legislative requirements for transfer of service.

Table 1a below shows the TUPE workforce for go-live:

Consultant	Current Employing Organisation	Staff Group	Band	weekly hours	Service	Base
1	MFT	Medical and Dental	Consultant	47.392	Vascular	MMH
2	MFT	Medical and Dental	Consultant	48.012	Vascular	MMH
3	MFT	Medical and Dental	Consultant	46.844	Vascular	MMH
4	MFT	Medical and Dental	Consultant	48.392	Vascular	MMH
5	MFT	Medical and Dental	Consultant-recharge GS	48.368	Vascular 50% and Surgery 50%	MMH
	MFT	Medical and Dental	STR Higher	40	Vascular	MMH
	MFT	Nursing and Midwifery (Registered)	AfC 8a	37.5	Vascular	MMH
	MFT	Nursing and Midwifery (Registered)	AfC 7	37.5	Vascular	MMH
	MFT	Administrative and Clerical	AfC 4	37.5	Vascular	MMH
	MFT	Administrative and Clerical	AfC 4	37.5	Vascular	MMH
	MFT	Administrative and Clerical	AfC 3	37.5	Vascular	MMH

## Possible implications associated with TUPE:

1. Change of base/location – this will attract a four-year excess mileage payment (where applicable); at the time of writing and based on the current information available this will amount to circa £77,000 over the four years (high level assumptions made).
2. Both organisations operate on national terms and conditions and there is no impact on pay on either side.
3. Both organisations are Foundation Trusts with freedoms to set Supporting Programme Activity (SPA) outside national terms and conditions of service.
4. Some consultants at MFT have additional programmed activities (APA) – discussion on how this will be treated should be considered; it is therefore recommended that timescales for TUPE activities detailed in the key stages of the consultation process are observed.
5. Assess impact of on-call service – identify all rotas that eligible staff participate in on-call duties especially those outside vascular service, if applicable.
6. The job planning cycle for MFT runs from Nov/Dec for a 12-month period therefore this means that current job plans have been agreed until Nov/Dec 2020; however, job planning is an activity that can be reopened when required.
7. Deanery doctors' placements will be transferred to EKHUFT following liaison with Kent, Surrey and Sussex Health Education England deanery (KSSHEE) – one-post at Specialty Registrar (Higher) level (StR H).
8. Administrative and clerical staff currently in scope for TUPE will need the proposed base/location assessed to determine if TUPE falls within the test of suitable alternative employment. For clarity, if the chosen base/location remains MFT then all admin staff will TUPE if the base is to transfer to Kent and Canterbury Hospital (KCH) then assessment of return mileage from current home addresses to KCH needs to be considered to determine if TUPE applies.
9. Organisational Development package to support staff transferring: it is recommended that a supportive bespoke organisational development programme is put in place prior to the transfer to align cultural approach. This programme should commence ahead of the consultation exercise and continue during this challenging period for staff and also include the onboarding upon transfer – estimated costs circa £5k. To be delivered by an external party.

## Recruitment Strategies:

A number of strategies will be deployed to address existing vacancies identified in the table above. These will include targeting potential candidates locally, nationally and internationally. Some of the existing routes at present include:

1. Use of existing NHS Jobs platform, advertising on BMJ;
2. Working alongside Sustainability and Transformation Partnership (STP) to tap into the Global Learners Initiative to source candidates internationally;
3. Other international recruitment avenues – Medical Training Initiative (MTIs), Trust Clinical Fellow (CTFs);
4. Recruitment and retention initiatives to be considered;
5. EKHUFT will advertise for vascular consultant posts ahead of TUPE transfer; current MFT



employees are welcome to apply ahead of TUPE if preferred.

Key stages of the consultation process:

The two proposed timescales below meet legislative timescale requirements; however, the preferred timescale outline mitigates potential liabilities associated with Programmed Activity (PA) change.

PREFERRED TIMESCALES			
Go live minus 6 months	Go live minus 3 months	Go live minus 1 month	Go live
<ul style="list-style-type: none"> <li>• Receipt of decommissioning letter;</li> <li>• Receipt of letter of measures;</li> <li>• Notification of and engagement with relevant unions/staff side colleagues;</li> <li>• With the above 2 in place launch consultation for 30 calendar days;</li> <li>• All activities associated with consultation to be completed (Outcome, 1-2-1 meetings etc.).</li> </ul>	<ul style="list-style-type: none"> <li>• Give notice period to remove PAs that are MFT centric.</li> </ul>	<ul style="list-style-type: none"> <li>• Employee Liability Information (DD) submitted.</li> <li>• OH records transferred securely and with consent.</li> </ul>	<ul style="list-style-type: none"> <li>• Employees transfer.</li> </ul>

MINIMUM TIMESCALES		
Go live minus 3 months	Go live minus 1 month	Go live
<ul style="list-style-type: none"> <li>• Receipt of decommissioning letter;</li> <li>• Receipt of letter of measures;</li> <li>• Notification of and engagement with relevant unions/staff side colleagues;</li> <li>• With the above 2 in place launch consultation for 30 calendar days;</li> <li>• All activities associated with consultation to be completed (Outcome, 1-2-1 meetings etc.).</li> </ul>	<ul style="list-style-type: none"> <li>• Employee Liability Information (DD) submitted;</li> <li>• OH records transferred securely and with consent.</li> </ul>	<ul style="list-style-type: none"> <li>• Employees transfer with the liability of lieu of notice of PA change.</li> </ul>

## Possible Risks:

High-level risks associated with the delivery of the vascular service post go-live are provided below along with possible mitigations.

ID	Risk	Mitigation
1	In the event that EKHUFT advertise for vascular consultant posts ahead of TUPE and current MFT consultants apply and are successful, the service at MFT may be at risk given reduced capacity; alternatively, if applicants are external to MFT then consideration needs to be given to avoid a possible situation of having excess vascular consultants in post for the network – this may result in a possible redundancy situation.	Monitor vacancies detailed in tables above on a monthly-basis to help inform recruitment strategies.
2	In the event that the letter of measures informs that APAs will not be accommodated, some consultants may find this unattractive resulting in a decision to resign (and therefore not TUPE).	Early discussion with stakeholders on how APAs will be treated ahead of TUPE.
3	In the event that the base/location for administrative staff changes from MFT there is a possibility that this staff group may not TUPE on the grounds of it not being considered suitable alternative employment.	The base/location for admin staff to remain MFT, this will allow for service continuity from this staff group.
4	There is a possibility that none of the staff eligible for TUPE transfers across to EKHUFT (through resignations). Under TUPE legislation employees may choose to resign from their current post at any time including a day before the date of TUPE transfer. The network needs to bear this in mind in planning for the service delivery.	The network needs to work up a scenario with this possibility. Consideration may also be given to explore temporary workforce in readiness for this eventuality.
5	Recruitment strategies deployed may not yield candidates.	Exploration of temporary workforce should be considered by host/employing organisation and associated funding included in the business case.
6	Lack of frequent communication to staff directly affected, resulting in dis-engagement and possible resignations.	Robust communication and organisational development supportive programme throughout process.

<b>Section 7</b>	<b>Impact on Trusts within the Network</b>
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The preferred option is a network model that works across a number of sites with a single acute inpatient arterial centre supported by an enhanced non-arterial centre and a number of outpatient sites.

The model will be structured as follows:

- Interim Single Arterial Centre (Hub)** – This will be located at the Kent and Canterbury Hospital in Canterbury, East Kent. The Arterial Centre will be the single hospital within the network that provides all inpatient care for both elective and emergency vascular surgery, providing all types of vascular surgery and vascular interventional radiology. This Arterial Centre will be the only hospital in Kent and Medway that has on site a 24/7, full, year-round specialist vascular team to manage all acute inpatient elective and emergency vascular surgery. The Arterial Centre will also be the managerial centre for the Kent and Medway Vascular Network. The Arterial Centre will also fulfil all the components of care available in an enhanced non-arterial vascular centre. This reflects the national recommendation for best practice. All vascular inpatient care will take place in the single Arterial Centre; this will include recovery from surgery until the patient is fit to either return home or to be transferred to rehabilitation care closer to their place of residence. This is mainly the case for patients requiring amputations although some other North Kent patients may wish to return to Medway Hospital for further rehabilitation closer to home. The Arterial Centre will also provide a comprehensive vascular diagnostic and outpatient ambulatory care service for the local population.
- Interim Enhanced non-arterial vascular centre (Enhanced Spoke)** - Medway Hospital (MFT) will be the Enhanced non-arterial vascular centre and will form an integral part of the Networks solution model of care. This will be resourced to provide local vascular services that do not require a 24/7 workforce presence and inpatient based vascular interventions. It will have an enhanced weekday presence of a specialist vascular team to support other acute services within the hospital. This hospital will have interventional radiology (IR) services to support day case vascular interventions. This IR service will also support the IR needs of non-vascular services. Day-case services will be provided to support activity within the vascular network e.g. renal access surgery and on-going fistula management support interventions and it will offer a comprehensive vascular diagnostic and outpatient ambulatory care service.
- Interim Non-enhanced non-arterial hospitals (Spokes)** - Locally across Kent and Medway, the Network model will be supported by Non-enhanced non-arterial hospitals. Hospitals that provide acute care services (typically medicine, surgery, obstetrics), that at times will require on site vascular advice and will require direct contact links to the arterial vascular centre for 24/7 support for vascular advice and patient management. These sites will not have a daily specialist vascular presence, however, the ability to offer full vascular diagnostics and outpatient services for the local population will be available. The Non-enhanced non-arterial hospitals will deliver all out of hospital care and will be delivered through the existing Kent and Medway hospitals' buildings at these sites. These hospital sites, which include Maidstone Hospital, Sheppey Hospital, William Harvey Hospital, Queen Elizabeth The Queen Mother Hospital and Dover Hospital will deliver a range of services that seek to keep care as close to home as possible for patients and will include:
  - Outpatients clinics; i.e. multi-disciplinary clinics, condition specific clinics, one stop shop clinics, nurse led and consultant clinics;
  - Pre- and post-operative care;
  - Ongoing monitoring and management of vascular conditions e.g. Peripheral vascular disease;
  - Diagnostics and tests; and
  - Day surgery where appropriate

The preferred option would see EKHUFT becoming the host provider Trust for the Kent and Medway Vascular Surgical Service. In the interim, until the longer-term transformation programme is delivered, all inpatient vascular surgery would be centralised at the Kent and Canterbury Hospital in Canterbury. There would be no inpatient vascular surgical care provided at MFT.

Outpatient service provision, diagnostics for vascular surgery and day case surgery would remain unchanged in terms of their location but EKHUFT will become the provider of all of those services.

At Maidstone Hospital, outpatients and diagnostic services will continue to be provided as at present. The hospital will have access to Vascular Consultant opinion with consultant presence 2 days per week. A Vascular Consultant will also be available on a planned ad-hoc arrangement to support with elective gynae-oncology, orthopaedic and obstetric surgical cases where it is considered necessary to have a vascular specialist on site. The current Service Level Agreements that exist between MTW and MFT will be transferred to EKHUFT and will be reviewed after the first 6 months of the Network go-live date. All costs for diagnostics undertaken on vascular patients at Maidstone Hospital by the Kent and Medway Vascular Network will need to be charged to EKHUFT.

The detailed clinical model and clinical pathways have been produced and formally approved by the Network Steering Group and can be found at Appendix 3.

Section 8 – Benefits Summary of Options			
Target Indicator	Option	Option 5A	Option 5B
	Do Nothing	Preferred	Alternative
SERVICE DELIVERY			
<p>The expected benefits that have been identified will be achieved through the delivery of this vision for Vascular Surgery across Kent and Medway and include:</p> <ul style="list-style-type: none"> <li>• Development of skills and expertise so that patients are better able to manage their condition and recovery;</li> <li>• Improved access to outpatient clinics at non-enhanced non-arterial centres;</li> <li>• Improved sustainability of the existing vascular services;</li> <li>• A sustainable specialist workforce (Consultant surgeons, IR Consultants and specialist nurses and the wider multi-disciplinary team);</li> <li>• A more productive and efficient service (minimisation of duplication and waste);</li> <li>• Improved opportunities for training, research and innovation;</li> <li>• Ensure that highly experienced staff are treating sufficient numbers of patients to maintain competency.</li> <li>• 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).</li> <li>• Provide access to cutting edge technology including a hybrid operating theatre for endovascular (minimally invasive) aortic</li> </ul>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>Yes</p>	<p>Yes</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	<p>Yes</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>

procedures.			
<ul style="list-style-type: none"> <li>• Provide a dedicated vascular ward and nursing staff.</li> </ul>	Only at 1 site	Yes	Difficult and costly to deliver due to estate pressures
<ul style="list-style-type: none"> <li>• 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.</li> </ul>	No	Yes	Yes
<ul style="list-style-type: none"> <li>• Care of patients will be managed through regular multi-disciplinary team meetings, which will occur at least once a week.</li> </ul>	Yes	Yes	Yes
<ul style="list-style-type: none"> <li>• Provider networks will work towards the aim of all leg amputations being undertaken in arterial centres</li> </ul>	No	Yes	Yes
<ul style="list-style-type: none"> <li>• Improving the patient experience, providing equality of access to the full range of vascular diagnostics and interventions and ensuring that patients are receiving a high quality of service, with access to the most modern techniques;</li> </ul>	No	Yes	Yes
<ul style="list-style-type: none"> <li>• Developing and sustaining the resilience of vascular services and the workforce providing those services;</li> </ul>	No	Yes	Yes
<ul style="list-style-type: none"> <li>• Improving mortality and morbidity rates for people with vascular disease and improving survival rates following hospitalisation;</li> </ul>	No	Yes	Yes
<ul style="list-style-type: none"> <li>• Improving complication rates following a vascular admission (short and long term).</li> </ul>	No	Yes	Yes
<ul style="list-style-type: none"> <li>• Reducing mortality rates by preventing death from ruptured abdominal aortic aneurysm, stroke, lower limb ischaemia and vascular trauma;</li> </ul>	No	Yes	Yes
<ul style="list-style-type: none"> <li>• Providing early intervention and treatment to achieve regional reductions in the incidence of stroke due to carotid artery disease and leg amputation due to peripheral arterial disease;</li> </ul>	No	Yes	Yes

<ul style="list-style-type: none"> <li>Supporting other services to control vascular bleeding and manage vascular complications; and</li> <li>Working jointly with the diabetic and podiatry service to optimise care, minimise tissue loss and prevent amputation.</li> </ul>	No	Yes	Yes
	Yes	Yes	Yes
<b>QUALITY INDICATORS</b>			
<ul style="list-style-type: none"> <li>Continued improvement of the clinical outcomes, in particular lower limb amputation, working towards achieving the best rather than average performance;</li> <li>Standardised methods and promotion of best practice across the clinical teams</li> <li>Clear lines of accountability and clinical governance across the network that puts clinicians and patients at the heart of performance monitoring and service development;</li> <li>The creation of a transparent and effective vascular network, that benefits from shared clinical expertise and clear effective pathways of care;</li> </ul>	No	Yes	Yes
	No	Yes	Yes
	No	Yes	Yes
	No	Yes	Yes
<b>STRATEGIC BENEFIT</b>			
<ul style="list-style-type: none"> <li>Reduced length of stay for patients and more effective pathway links with community providers to support timely repatriation of patients following surgery.</li> <li>Serve a minimum population of at least 800,000 people to ensure an appropriate volume of procedures.</li> </ul>	No	Yes	Yes
	No	Yes	Yes
<b>SAVINGS (CIP)</b>			

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<ul style="list-style-type: none"> <li>Affordability for Commissioners</li> </ul>	Yes	Yes	No as MFT has a higher MFF which Commissioners would need to pay for all EKHUFT activity therefore increasing costs substantially for the commissioners
OTHER			
<ul style="list-style-type: none"> <li>Distance to access services</li> </ul>	Yes	Yes	No (Medway arterial centre would provide poorer access for some of the population) – See section 5



## Section 9 Equality analysis

The NHS England Specialised Commissioning team has undertaken a high-level analysis of the equality impact that changes to the provision of vascular surgical services will have.

People with diabetes are at a higher risk of vascular disease. Prevalence of diabetes is caused by a number of factors such as an ageing population, obesity and low levels of activity.

Another important factor for diabetes is the changing ethnic mix of the population. People from black and minority ethnic communities are six times more likely to develop the disease, suffer from a 50% increased risk of heart disease and have much higher levels of kidney disorders. The care of people with diabetes can also be complex with 25% of people suffering from three or more other long-term conditions.

NHS England now has an accessible information standard which needs to be considered/adhered to in the engagement<sup>9</sup>

Group	Evidence
<b>Age</b>	Patients using vascular services tend to be older. Although there is an increasing prevalence of older people using online services it will be important for the communications and engagement process to consider the needs of older people by producing some documentation in print/large print to allow for age-related changes in vision.
<b>Disability</b>	<ul style="list-style-type: none"> <li>Because a proportion of patients accessing vascular services have diabetes it is likely that some will have visual impairment beyond the usual age-related changes in vision. This means that the consultation will need to be available in alternative formats. These patients may be unable to drive and may have difficulties accessing public transport, consideration needs to be given to whether they will be able to attend meetings.</li> <li>Arterial disease in some patients requires lower limb amputation which will also affect accessibility to attend meetings</li> <li>Patients with chronic mental health problems and learning disability (particularly Down's syndrome) are at increased risk of diabetes and arterial disease. There will be a requirement for easy read versions of documentation</li> </ul>
<b>Gender reassignment (including transgender)</b>	No impact
<b>Marriage and civil partnership</b>	No impact
<b>Pregnancy and maternity</b>	No impact

<sup>9</sup> <https://www.england.nhs.uk/wp-content/uploads/2015/07/access-info-upd-er-july-15.pdf>

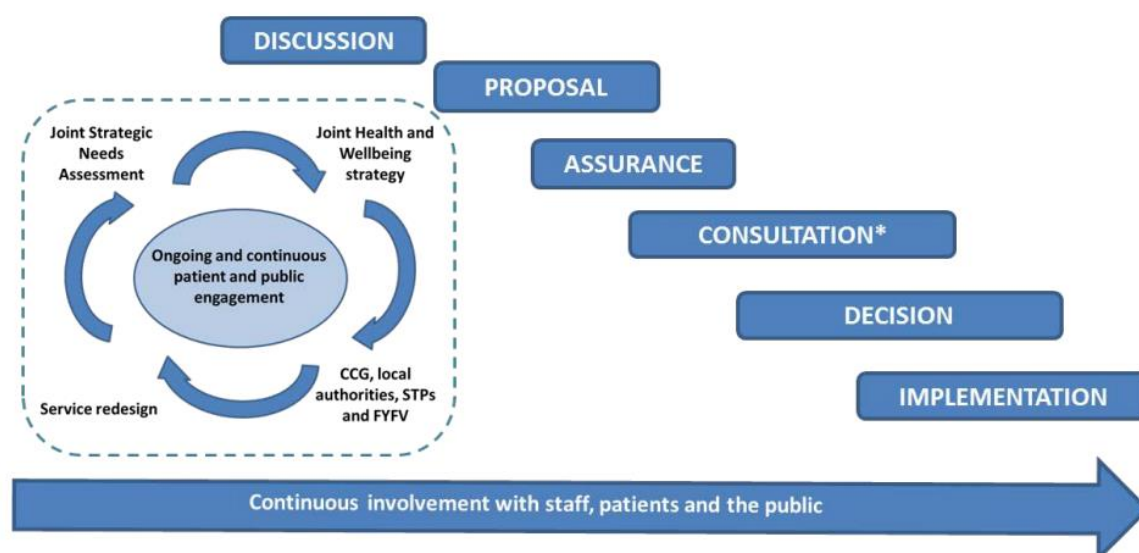
<b>Race</b>	Diabetes is more common in people of South Asian origin with earlier onset of significant arterial complications. People of Afro-Caribbean origin are more prone to high blood pressure which may be more difficult to control than in other groups, hence increased incidence of renal disease and stroke. Narrative content of the communications does not need to be adjusted but appropriate images this group can identify with should be used in any design. It will also be appropriate to make translations available for people whose first language is not English.
<b>Religion or belief</b>	Patients whose religion or belief does not allow blood transfusion or particular blood products will have complications relating to accessing vascular services.
<b>Sex</b>	Vascular disease is more likely to affect men than women. Narrative content of the communications does not need to be adjusted but appropriate images this group can identify with should be used in any design.
<b>Sexual orientation</b>	No impact
<b>Carers</b>	<p>As vascular patients tend to be older and may already have disabilities (or develop a disability as a result of vascular surgery/amputation) they may already have a carer or may need the support of a carer.</p> <p>The consultation will seek to engage with carers to understand the impact of the proposals and possible solutions such as community transport for visitors.</p>
<b>Other identified groups.</b>	<p>Parts of Medway CCG have areas of socio-economic deprivation. Smoking, obesity and low levels of activity are more common in areas that have socio economic deprivation. As these lifestyle risk factors are also linked to prevalence of diabetes (and therefore risk of vascular disease) the communications and engagement must consider the communications needs of this group. A review by <a href="#">Ofcom</a> indicates that socio economic deprivation influences access to ICT (put in full) which can itself be a form of social exclusion.</p> <p>However, more recent research by Public Health England for the One You campaign shows people aged 40-60 in lower socio-economic groups are heavy users of mobile communications including text messaging and digital social media such as Facebook. The mix for the campaign needs to take these preferences into account.</p>

## Section 10 – Implementation Plan

The Kent and Medway Vascular Surgery Network Programme has most recently been led and Programme Managed jointly by EKHUFT and MFT.

The detailed analysis of the activity data highlighted that only a small proportion of the vascular activity that is undertaken at MFT and EKHUFT is commissioned by Specialised Commissioning and, indeed, that a large proportion of the activity is commissioned by the Clinical Commissioning Groups across Kent and Medway. NHS England South East Specialised Commissioning have confirmed that they wish to continue to lead the proposed reconfiguration of vascular services in Kent and Medway and the CCGs have confirmed that they are happy for NHS E to do so.<sup>10</sup>

These commissioning arrangements are relevant as the NHS must abide by NHS England's Assurance Processes as set out in "Planning, assuring and delivering service change for patients (March 2018)". This assurance process requires commissioners and their local partners to develop clear, evidence-based proposals for service change and to undertake assurance to ensure they can progress with due consideration for the government's four tests of services change and NHS England's test for proposed bed closures. The service change process has several phases as shown in the diagram below.



\*Public consultation may not be required in every case. A decision about whether public consultation is required should be made taking into account the views of the local authority.

The pre-consultation business case is being prepared by NHS E South East Spec Comm and this is required to be approved prior to commencement of a public engagement or consultation. This assurance process can only commence once the provider organisations are signed up to the business case and agree on the preferred option. Once all NHS providers and NHS E agree with the proposals set out in this business case, commissioners will secure the agreement of the Joint Health Overview and Scrutiny Committee, comprising members from Kent County Council Health Overview and Scrutiny Committee and of the Medway Health Overview and Scrutiny Committee. This will enable public engagement or consultation to commence. Analysis of the consultation feedback and responses will then be undertaken to allow the NHS organisations to make an informed decision on their proposal for the interim solution for the Kent & Medway Vascular Network.

The current programme of supporting works at EKHUFT and currently identified activity at MFT shows that the earliest the proposed interim solution for the Kent and Medway Vascular Network could go live is the summer of 2021. This is subject to necessary stakeholder approvals and engagement or consultation.

<sup>10</sup> See Appendix 9

The stakeholder approvals required are:

Programme Oversight Group/Steering group

EKHUFT board

MFT board

Commissioner (NHSE/I Specialised Commissioning and Kent and Medway CCG)

NHSE Assurance

## Section 11 – Recommendations

- |    |  |
|----|--|
| 1. | It is recommended that approval is given for the preferred option to be implemented. |
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## Section 12 – sign off

### Programme Oversight Group/Steering group

	Date:	
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### EKHUFT Sign-Off

Strategic Investment Group	Date:	
CEMG	Date:	
Finance & Performance Committee	Date:	
Trust Board	Date:	

### MFT Sign-Off

Strategic Investment Group	Date:	
CPMT	Date:	
Finance & Investment Committee	Date:	
Trust Board	Date:	

### Kent and Medway CCG Sign-Off

	Date:	
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### NHS England Specialised Commissioning Sign-Off

	Date:	
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Document version control	Version No.	Issue date	Notes
	1.0	13/02/2020	Version that went to EKHUFT & MFT
	1.1	21/09/2020	Alterations made as per the CCGs suggestion. Changes to forecast activity (as agreed in the activity & finance group) and narrative on investment to make the service compliant to national standards.
	1.2	22/09/2020	Amendments to the presentation of the financials and addition of areas of health economy impact by A Foreman.
	1.3	25/09/2020	Amendments and agreement on changes by A Foreman and T Lovegrove-Bacon for submission to the K&M Vascular Finance & Activity group.
	1.4	02/10/2020	Amendments, additional narrative and agreement on changes by the K&M Vascular Finance & Activity Group for submission to the K&M Vascular Network Steering Group.
	1.5	20/10/2020	Amendments and minor restructuring by NHS England Specialised Commissioning. Minor additional narrative and clarification on current challenges. Final changes before submission to the K&M Vascular Network Steering Group.
	1.6	21/10/2020	Format review following removal of track changes from v 1.5
	1.7 (Final)	22/10/2020	Finalised appendices and proposed changes from A Foreman and S Brooks-Sykes.

## Appendices:

APPENDIX 1 - Final Business Case for Change

APPENDIX 2 - MFT Staff to TUPE and SLA Dec 19

APPENDIX 3 - KM Vascular Network Model

APPENDIX 4 - Letter from V Lewis

APPENDIX 5 - Vascular mapping KM final

APPENDIX 6 - Vascular Travel Times

APPENDIX 7 - Vascular Engagement

APPENDIX 8 - September 2019

APPENDIX 8.1 - 08.2015 Medway HASC

APPENDIX 8.2 - 10.2015 Kent HOSC

APPENDIX 8.3 - 08.01.2016 Kent and Medway JHOSC

APPENDIX 8.4 - JHOSC 04.2016

APPENDIX 8.6 - JHOSC 11.2016

APPENDIX 8.7 - JHOSC 12.2017

APPENDIX 8.8 - JHOSC 10.2018

APPENDIX 8.9 - JHOSC 09.2019

APPENDIX 8.10 - 02.2016 K&M Vascular Engagement Review

APPENDIX 8.A - September 2019 Presentation

APPENDIX 9 - Letter to spec comm re. vascular lead com

APPENDIX 10 - Current inpatient pathway

APPENDIX 11 - Letter of Intent MK and LD