Trust Board paper R

To:	**Trust Board**
From:	Kate Shields – Director of Strategy
Date:	**31 July 2014**
CQC regulation:	
Title:	**Approval of the Vascular Outline Business Case (OBC)**

Author/Responsible Director:
Rachel Griffiths - Project Director;
Kate Shields - Director of Strategy/Responsible Officer

Purpose of the Report:

To seek approval to submit the Vascular OBC to the:

- National Trust Development Agency (NTDA) in August 2014.

The Executive Summary of the Vascular OBC was considered by the Capital Monitoring & Investment Committee on the 27 June 2014, at which the principle of the case was supported for consideration by the Executive, subject to additional analysis and update in the following areas:

- Align to the Blueprint for Health & Social Care in LLR 2014 – 2019 and UHL's Five Year Integrated Business Plan (IBP)
- Review the specific costs attributable to vascular and present a clear analysis of the opportunities to realise a breakeven position by year 6.
- Strengthen the clinical case, ambition of the service and interdependency between vascular and cardiology within the Executive Summary
- Overall recognising the level of detail within the main body of the OBC strengthen the Executive Summary to present a compelling case for investment

The case has been updated in line with this feedback and supported by Executive on the 15 July to proceed via F&P to Trust Board.

The Report is provided to the Committee for:

Decision	X	Discussion	X
Assurance		Endorsement	

Summary / Key Points:
The Vascular OBC incorporates the transfer of vascular and supporting services from the LRI to the GH site including an inpatient ward and surgical admissions area; vascular studies unit; angiography and the provision of a new hybrid theatre.

The service move to GH releases prime in patient and theatre space at the LRI plus supporting infrastructure/services.

Recommendations:
The Trust Board is asked to:

- support the submission of the OBC to the NTDA.
- support the approval of the case in the knowledge that the transition move costs will be addressed through the five year strategy; and the opportunity costs will afford the scope for future service reconfiguration to deliver a two site solution.
- agree that the future bed modelling will incorporate provision of the release of ward 24 at the Glenfield Hospital as an enabler to the vascular project.
- Recognise that as part of the future capacity review and reconfiguration of services, consideration will be given to the requirement for ITU beds on the GH site
- accept the timescale for delivery of the OBC and subsequent FBC at risk, subject to addressing the above

Previously considered at another corporate UHL Committee?

Vascular Project Board - 16 June 2014.
Capital & Investment Monitoring Committee - 27 June 2014
Executive Team - 15 July 2014.
Finance & Performance Committee - 30 July 2014

Board Assurance Framework:	**Performance KPIs year to date:**

Resource Implications (e.g. Financial, HR):
Detailed within the OBC

Assurance Implications:

Patient and Public Involvement (PPI) Implications:
The transfer of services to GH will require consideration through the Overview and Scrutiny Committees supported by on-going dialogue with patient representative groups.
In the short term outpatient services will remain on the LRI site

Stakeholder Engagement Implications:

Equality Impact:

Information exempt from Disclosure:

Requirement for further review?
Trust Board update reports at key milestones.

Approval of the Vascular Outline Business Case (OBC)

1. PURPOSE

a. To seek approval to submit the Vascular OBC to the National Trust Development Authority (NTDA) in August 2014

b. To provide the Executive Summary of the Vascular OBC to the Trust Board for specific consideration of the:

   i. Strategic context; alignment to the Trusts future service configuration
   ii. Capital costs
   iii. Revenue impact including potential future opportunities
   iv. Transitional costs to UHL in line with the Five Year Strategy
   v. Programme for delivery of both the OBC and the Full Business Case (FBC)
   vi. Future Trust Assurance on cost base for delivering the FBC

c. The Vascular OBC; Estate Annex and Operational Policy are available for consideration by the Board` if additional detail is required.

2. BACKGROUND

a. On the 2nd July 2013 the Executive Strategy Board (ESB) supported the feasibility for the relocation of vascular services and the necessary resources to develop and undertake design development and the production of the FBC.

b. On the 16th July 2013 ESB approved the commencement of the detailed design development work to support the vascular FBC this was revised on 1st October 2013 when ESB considered a paper following the NTDA feedback outlining the revised approach to vascular; the need to develop an OBC in advance of the FBC.

c. On the 4 March 2014 ESB considered an update on the project and the then revenue cost impact of £2.7m. It was agreed that further detailed analysis would be undertaken including a Confirm and Challenge programme to address the cost base and differentiate specific vascular costs from those attributable to the Five Year Strategy reconfiguration of service moves and changes.

d. The original driver for the relocation of vascular services from the Leicester Royal Infirmary (LRI) to the Glenfield Hospital (GH) was as an enabler to support delivery of a single site surgical take. In addition, the co-location of vascular and cardio/thoracic services is a key factor underpinning the NHS England standard contract for Specialist Vascular Services.

3. KEY HEADLINES AND/OR CHANGES

SERVICE PLANNING

a. The vascular OBC is in support of realising the service ambition to become a Level One Regional Centre for complex endovascular services, supported by exceptional clinical outcomes. The case incorporates the transfer of vascular and supporting services from the LRI to the GH site, including an inpatient ward; surgical admissions area; vascular studies unit; angiography and the provision of a new hybrid theatre.

b. In the short term vascular outpatients will be retained on the LRI site pending a longer term approach to the provision of a dedicated OP/DC hub which will incorporate these services. This will be subject to public consultation as part of the future configuration of services with the development of the proposed OP/DC hub at GH.

c. The relocation of vascular services has been agreed as a priority for delivery within the next two years Trust Operational Plan and is integral to delivery of the Trust's Clinical and Five Year IBP as an enabler for the release of space on the LRI site.

d. Addressing the main factors contributing to mortality including cardio-vascular disease is key to the Blueprint for Health & Social Care in LLR 2014 – 2019. Cardio-vascular disease affects 50% of the 'older' population and has a significant affect on quality of life and longevity.

e. The move of vascular services supports the re-designation of UHL as a lead, level one centre and thereby ensures the long term sustainability of vascular, cardiac and cardiology services. The move is supported by both vascular and cardiology clinical teams. The co-location of vascular services with cardiology/cardiothoracic surgery at GH is a key foundation in the re-designation process for vascular services; and likewise any future designation as a thoracic aortic disease centre.

f. Loss of designation would likely incur a minimum loss of income to the Trust of circa £750k per annum and does not account for the potential impact on other associated services through the loss of specialist vascular provision locally.

g. Re-designation not only secures service sustainability but offers patients a high quality streamlined service supported by 21st century imaging solutions.

h. The main objective is ensure that all patients with vascular disease have 24/7 access to a specialist vascular team with a thorough understanding of their condition, who are able to organise all appropriate investigations and treatment, and manage their post-operative care.

i. During 8am to 5pm (week days) there will be a dedicated consultant vascular surgeon at LRI site to provide support to ED, medical wards and in-house emergencies at LRI site. There will be daily consultant ward rounds of all vascular in-patients, with effective hand-over practices in place. The LRI based consultant will triage ED patients; give inpatient opinions and operate on emergency cases that are too unstable to transfer to GH. The future pathways of care are outlined in the vascular operational policy in support of this OBC.

j. The move of vascular services provides the opportunity to maximise service co-locations and enhanced efficiency. The defined efficiency measures within the OBC have been reviewed as part of the Vascular Service Review supported by Ernst & Young to assess the deliverability. There are further potential efficiencies to be realised through combined workforce solutions and enhanced space utilisation through design. The detailed findings of the Service Review and agreed performance measures will be available in August and will be reflected in the Full Business Case. At this stage the observations and benefits identified can be summarised in the table overleaf:

Business Case Benefits	Service Review Observations	Target/Benefit
Reduces average length of stay	High LOS observed e.g. amputation of leg – delays to discharge Average LOS between 3.63 and 22.76 days for top 10 procedures	Reduce LOS – reduce no of bed days – increase efficiency and throughput Improve outcome for patients on defined clinical pathways
Reduced cancellations	13% (1,143) hospital outpatient cancellations in 2013/14	Outpatients increased efficiency – reduced level of cancellations and improved slot utilisation
Increased elective procedures	Opportunity to become service provider of choice in the East Midlands Region	Enhancing market share within East Midlands Improved capture of activity undertaken through enhanced coding
Improved theatre utilisation	Opportunity to improve theatre utilisation by eliminating delayed starts – 172 hours over the year (2013/14) Unavailability of ward beds is the primary reason for hospital cancellations	Improve utilisation of resources and theatre time – patient readiness for theatre; managing patient flows Dedicated bed base for vascular. Defined day case beds supporting angiography

4. FINANCE

a. The identified capital costs are £11.9m assuming VAT reclamation at circa £450k.

b. This project is identified within the Trust's Capital programme as requiring external loans for the main scheme up to £11.9m.

c. The Trust has appointed Holbrow Brookes to act as independent technical adviser and to undertake due diligence on the costs and detail outlined in both the OBC and the supporting Estate Annex.

d. A Confirm and Challenge panel reviewed all revenue costs within the OBC and costs were differentiated on the basis of:

  i. Direct costs attributable to vascular
  ii. The cost of transition pending the final reconfiguration of services by site
  iii. Opportunity costs afforded by the release of capacity on the LRI site

iv. Total impact on the Trust including depreciation and capital charges £2.1m by 2022/23 (includes £1.2m staff resource costs that provide additional capacity/opportunity at the LRI)

e. The high level outcome of this is outlined in Table 1 (page 8 of the Vascular OBC) with detailed financial analysis provided in section 5 of the full OBC document.

f. At this stage the steady state assumes an additional £602k per annum, this is mitigated through the additional opportunities/validation identified including:

   i. work currently being undertaken to address the current coding challenges within vascular. Coding indicates opportunities to further improve income recovery for both elective and non-elective spells.
   ii. anomalies within the PLICs data.
   iii. changes to the income profile in respect of future partnerships. A prudent approach has been taken in respect of additional activity which will be fully addressed through the development of the FBC.

g. On the basis of the above, vascular is estimated to have a surplus net position by 2019/20.

h. Through OBC to FBC the robustness of the costs will be further reviewed and confirmed.

i. Further market analysis will be undertaken building on the high level review as part of the Five Year IBP; and progressing the development of partnership working.

5. DELIVERY/TIMESCALE

a. A series of enabling moves are required to deliver the vascular project and the timescale for approval is critical to this scheme. A key challenge is the available inpatient space at the GH site and the release of 27 beds from spring 2015.

b. Subject to approval of the above the current timescale for delivery and approval of the Outline and Full Business Cases is now as follows:

   - NTDA August 2014
   - FBC to CMIC & ESB February/March 2015
   - FBC to Trust Board March 2015
   - FBC to NTDA March/April 2015
   - Construction commences Summer 2015
   - Delivery and Commissioning of the new facilities Summer 2016

c. This timescale is on the basis that detailed design development will commence at risk in advance of the NTDA approval of the OBC. The previously approved costs for production of the FBC through Capita are £602k, recognising this excludes Trust costs. A detailed brief for developing the FBC has been issued to Interserve Construction to provide a revised cost base for development of the FBC. The response to the brief and associated costs will be evaluated to ensure the most appropriate and cost effective delivery of the FBC.

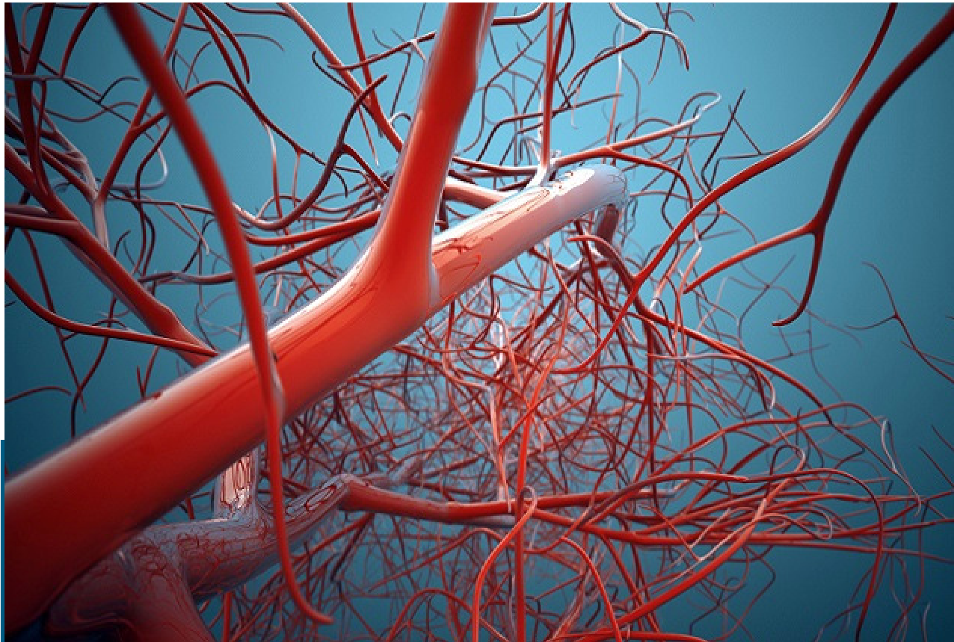
6. RECOMMENDATION

a. To support the submission of the OBC to the NTDA.

b. To support the approval of the case in the knowledge that the transition move costs will be addressed through the five year strategy; and the opportunity costs will afford the scope for future service reconfiguration to deliver a two site solution.

c. To agree that the future capacity and bed modelling will incorporate provision of the release of ward 24 at the GH as an enabler to the vascular project; and the level of ITU provision required on the GH site.

d. To accept the timescale for delivery of the OBC and subsequent FBC subject to addressing the above.



Outline Business Case Executive Summary

Vascular Services, Angiography & Hybrid Theatre
July 2014

Version: 1.32 – Trust Board Issue

Issue date: 31 July 2014

Contents

Document Quality Management 3

1 | Executive Summary 5

1.1 Introduction 5
1.2 Strategic Case 11
1.3 Economic Case 13
1.4 Commercial Case 15
1.5 Financial Case 15
1.6 Management Case 19
1.7 Conclusion 20

DRAFT

Document Quality Management

Title	OBC Vascular Services; Angiography; Hybrid Theatre
File ref	
Date	17.07.14
Version	1.32
Status	Final Draft following Project Board Approval, Capital Monitoring & Investment Committee Review and Executive Strategy Board Approval
Prepared by	Caroline Mulholland – Capita (Senior Consultant)
Checked by	Chris Sellars – Capita (Senior Consultant)
Authorised by	Tom Myers/Chris Turner – Regional Operations Director (s)

Document History			
Version	Date Issued	Brief Summary of Change	Author
1.0	22/11/13	Initial draft issued to Chris Sellars	C Mulholland
1.1	25/11/13	Update	C Mulholland
1.2	28/11/13	Update – workforce; pt involvement sections	C Mulholland
1.3	29/11/13	Updated post-review with C. Sellars	C Mulholland
1.4	04/12/13	NTDA checklist alignment	C Mulholland
1.5	05/12/13	Update	C Mulholland
1.6	11/12/13	Non-financial scoring info added	C Mulholland
1.7	13/12/12	Update – risks; mgmt section	C Mulholland
1.8	16/12/13	Management Section	C Sellars
1.9	17/12/13	Commercial/Procurement Amendments	D Chambers
1.9	18/12/13	Updated post CT/DC review	C Mulholland
1.10	18/12/13	Formatted	G Everett
1.11	19/12/13	Management Section	C. Sellars

DRAFT

1.12	20/12/13	TM/CT/DC Comments – Formatted	C. Sellars
1.13	06/01/14	User Comments following Review	C Mulholland
1.14	10/01/14	Changes accepted following Trust review	C Mulholland
1.15	21/01/14	CS/CM review	C Sellars
1.16	24/01/14	Updated Commercial case re Hybrid	C Mulholland
1.17	03/02/14	Updated	C Mulholland
1.18	11/02/14	Updated Procurement, Strategic case	C Mulholland
1.19	25/02/14	Updated re Finance / Programme	CM / CS
1.20	18/03/14	Updated following Project Board actions	C Mulholland
1.21	27/03/14	Economic Model added	C Mulholland
1.22	28/03/14	Financial and Economic Model added/DC Review	C Sellars
1.23	07/05/14	Updated following Trust Review	C Mulholland
1.24	14/05/14	Updated prior to ESB submission	C Mulholland
1.25	15/05/14	Updated following Estate Annex feedback& Revised Financial Section	C Sellars
1.26	23/05/14	Updated following Project Board approval	C Mulholland
1.27	28/05/14	Updated following RG meeting	C Sellars
1.28	12/06/14	Revenue Amendments	V Chalmers
1.29	20/06/14	Financial Amendments & Further changes	V Chalmers
1.30	08/07/14	Strategic Context; Financial Amendments; post Capital Monitoring & Investment Committee	R Griffiths
1.31	09/07/14	Finance Assumptions; formatting and further amendments post Capital Monitoring & Investment Committee	R Griffiths
1.32	17/07/14	Amendments to BCT and Vascular Diagram & Updated following ESB	RG/CS

DRAFT

1 | Executive Summary

1.1 Introduction

This Outline Business Case (OBC) is to support the University Hospitals of Leicester NHS Trust's (UHL) ambition to become a Level One regional centre for complex endovascular services supported by exceptional clinical outcomes. This case encompasses the transfer of Vascular Services (Vascular inpatient accommodation and Vascular Studies Unit) from the Leicester Royal Infirmary (LRI) to Glenfield Hospital (GH); the co-location of vascular services with cardiology/cardiothoracic surgery at GH is a key foundation in the re-designation process for vascular services. The ability for a single site to accept all referrals for vascular disease from aortic valve to distal foot vessels is of significant importance to future patient care and will likewise attract additional high profile work. This case includes the development of a dedicated vascular inpatient unit; creation of an angiography suite and provision of a Hybrid theatre at GH. This is equally a key first stage enabling move towards the delivery of UHL's Five Year Integrated Business Plan and the release of prime inpatient and theatre accommodation on the LRI site.

The University Hospitals of Leicester NHS Trust's Vascular Surgery Unit is one of the UK's premier units providing comprehensive, high-quality care for patients with peripheral vascular diseases. It is formed of a multidisciplinary team of nurses, occupational therapists, physiotherapists, radiologists, anaesthetists and surgeons working in a synergistic manner to achieve excellent patient outcomes. This is evidenced by both local patient survey data[1]and national audit outcome data[2]. Furthermore, the unit has a strong track-record of innovation and research, from the invention of sub-intimal angioplasty[3] to the early implementation and refinement of endovascular aneurysm repair[4], and more recently leading worldwide collaborative research projects that have both informed clinical care pathways[5] and identified new paradigms for the basis of aneurysmal disease[6].

However, despite this record of excellence there are significant challenges facing the University Hospitals of Leicester Vascular Unit. The national provision of many aspects of vascular surgery now falls under the remit of specialised commissioning groups and there is a national move to locating tertiary services in fewer, larger units (level one centres). In order to ensure the long-term survival of the vascular unit and build upon the current success it is necessary to invest in the development of the service and thus place the unit at the forefront of both regional and national contenders to continue providing vascular services. In particular, it is necessary to provide the infrastructure (both material and human resources) to be able to build upon the current tertiary referral practice and develop a quaternary referral practice.

The principle barriers to moving the current service forward are;

[1]Ward 21 Friends and Family Test
[2]Vascular Society of Great Britain and Ireland. National Vascular Registry 2013 Report on Surgical Outcomes, Consultant-level Statistics. http://www.vsqip.org.uk/surgeon-level-public-reporting/ [accessed 1 June 2014].
[3]Recanalisation of femoro-popliteal occlusions: improving success rate by subintimalrecanalisation. Bolia A, Brennan J, Bell PR. ClinRadiol. 1989 May;40(3):325
[4]Endovascular stenting of abdominal aortic aneurysms. Sayers RD, Thompson MM, Bell PR. Eur J Vasc Surg. 1993 May;7(3):225-7.
[5]Surveillance intervals for small abdominal aortic aneurysms: a meta-analysis. RESCAN Collaborators: Bown MJ, Sweeting MJ, Brown LC, Powell JT, Thompson SG. JAMA. 2013 Feb 27;309(8):806-13
[6]Abdominal aortic aneurysm is associated with a variant in low-density lipoprotein receptor-related protein 1. Bown MJ et al. Am J Hum Genet. 2011 Nov 11;89(5):619-27

- The current location of the service at the Leicester Royal Infirmary site, separate from cardiac and cardio-thoracic surgery, both of which are at the Glenfield Hospital, and
- The lack of in-theatre high-quality radiological imaging facilities (a 'hybrid' theatre). Both the co-location of vascular surgical services with cardio-thoracic surgery and the provision of a hybrid theatre are pre-requisites for the commissioning of complex vascular surgery[7].

Our vision is to create a comprehensive centre for cardiovascular medicine and research. In moving the vascular surgery unit to the Glenfield Hospital site this brings together not only the clinical services, but also the strong academic components of these services. This will build upon the previous investments in the NIHR Leicester Cardiovascular Biomedical Research Unit and the BHF Cardiovascular Research Centre and strengthen the world-leading position of Leicester as a centre for cardiovascular research excellence.

- Why are we doing it?

- Increasing vascular activity due to greater prevalence of vascular disease
- National Specialised Services re-designation ongoing, need to attain Level One to maintain activity/reputation
- Moving Vascular will increase potential of achieving Level One re-designation through
    - Closer working relationships with Cardiothoracic Services
    - Provision of a Hybrid Theatre to provide state-of–the-art imaging facilities
- Ensures the long term sustainability of vascular, cardiac and cardiology services – no change in the current service provision would result in a major risk of loss of designation and the secondary effects of this on cardiovascular services as a whole.
- A key consideration for future designation as a thoracic aortic disease centre will be the requirement for an integrated endovascular, vascular and cardiac surgical team. The development of an integrated aortic disease service will form an increasingly important source of revenue for the Trust as other procedures e.g. coronary artery bypass grafts (currently 50% of income) declines
- Leicester has been a pioneering centre in the use of stent grafts in the UK, to sustain and develop such techniques requires a match in the technology available through the provision of a hybrid theatre. The provision of a hybrid theatre is key to enabling highly specialised activity to continue to be undertaken in Leicester.
- The new 'Shape' GMC training specifications will be supported by the new model proposed with an integrated cardio-vascular service centred on the GH site.
- Aligns with the Trust's Five Year Integrated Business Plan, Clinical Strategy and Estate Development Strategy. It is anticipated that within three years of moving vascular services, renal and transplant services will re-locate to the GH, thereby enhancing future clinical interdependencies and a change in workforce provision.

- What benefits will it bring?

- Improved services for patients including 21st Century imaging solutions through the provision of the Hybrid Theatre – this will be dual use between vascular, cardiology/cardiothoracic surgery with a joint approach being taken to its development

[7] NHS England. 2013/14 NHS Standard Contract for Specialised Vascular Services (Adults).http://www.england.nhs.uk/wp-content/uploads/2013/06/a04-spec-vascu-adult.pdf [accessed 1 June 2014]..

DRAFT

- A comprehensive programme to clinically manage and surgically treat patients with aortic pathology, this is a primary aim of the cardiac, thoracic and vascular surgeons and reflected in the Five Year IBP to be realised in the next two years.
- A hybrid theatre will afford the potential to expand the vascular and cardiac surgery portfolio of services, including complex thoracic-abdominal aneurysms which not only offer patient benefits but increases the income potential for the Trust
- Cost Efficiencies through streamlined patient processes
- Future-proofed, updated facilities
- First step in Trust's strategy towards achieving a two site solution
- Enhanced staff recruitment, development and retention
- Alignment of clinical and research facilities on the GH site. Cardiovascular research has been a major strength of the Leicester Medical School, University of Leicester (UoL) since its inception. This was recognised through the award of a National Institute of Health Research (NIHR) Biomedical Research Unit (BRU) in cardiovascular disease to a partnership between UHL and UoL. The BRU has state of the art facilities for clinical research on the GH site. The opening of the £12.5m Cardiovascular Research Centre (CRC) at GH further re-enforces the centralisation of services on the GH site

▶ Can we afford it?

- The capital costs are £12.3m. This is accounted for in the Trust's approved Capital programme over the next two financial years
- The total additional revenue costs of the scheme in steady state (2022/23) are c£602k per annum (see *additional true cost to vascular* in table 1 overleaf)
- The revenue costs assume a prudent approach to potential additional income (see overleaf)

DRAFT

Table 1 Summary Financial Position

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Baseline Costs										
Income	10,842	10,625	10,625	10,625	10,625	10,625	10,625	10,625	10,625	10,625
Expenditure	9,070	9,070	9,070	9,070	9,070	9,070	9,070	9,070	9,070	9,070
Overheads	2,784	2,784	2,784	2,784	2,784	2,784	2,784	2,784	2,784	2,784
I&E	-1,012	-1,229	-1,229	-1,229	-1,229	-1,229	-1,229	-1,229	-1,229	-1,229
Single Site Move Costs										
Additional Income				276	368	368	368	368	368	368
Recurrent costs				421	561	561	561	561	561	561
Depreciation & Capital Charges				359	467	456	444	432	420	409
Transitional Costs				467	406	333	83			
Total				-971	-1,066	-982	-720	-625	-613	-602
Financial Position Post Site Relocation	**-1,012**	**-1,229**	**-1,229**	**-2,200**	**-2,295**	**-2,211**	**-1,949**	**-1,854**	**-1,842**	**-1,831**
Further Additional Opportunities/Validation										
Clinical Coding (Pending Outcome of E&Y Service Review)			488	975	975	975	975	975	975	975
Improvement in PLICS position following ongoing internal review		450	450	450	450	450	450	450	450	450
Future partnership working increasing activity					271	271	271	271	271	271
Counting & Coding unbundled imaging tariff			167	167	167	167	167	167	167	167
Further efficiencies, increases in market share and Transformation							150	150	150	150
Total of Further Opportunities and Validation	0	450	1105	1592	1863	1863	2013	2013	2013	2,013
Net Position	**-1,012**	**-779**	**-124**	**-608**	**-432**	**-348**	**64**	**159**	**171**	**182**
Vacated Capacity (LRI)				761	1,424	1,424	1,424	1,424	1,424	1,424

The ‘**Income’** position reflects the existing position of Vascular. There is also an offset due to the reduction of the Payment by Results tariff from 14/15 onwards (c. 1.2% reduction compared to 13/14). The model does not include any additional future year on year savings targets.

The project assumes a steady state in relation to potential income. The vascular income position will be significantly improved following the below and we believe that the outcome of these will mitigate the additional true costs to vascular:

- Clinical coding (pending outcome of Vascular service review)
- Improvements to PLICS position following ongoing internal Trust review
- Future partnership working increasing activity (income)
- Re-designation as Level One Cardio-Vascular service increasing tertiary activity (income)

Further work will be undertaken during the development of the Full Business Case (FBC) to ensure an accurate and robust income forecast is shown.

The ‘**Transitional Costs’** recognises the transfer of vascular services as the first stage in the transformation of the UHL estate. Additional staff support vascular until the single site surgical take (assumed at 12 months post vascular transfer), and the transfer of Renal Services / HPB from LGH to GH (assumed as three years following the move of vascular). These transitional costs are therefore only incurred until 2019/20.

Current Market Share Analysis – Vascular Services

Within the Five Year Integrated Business Plan a high level market share analysis was undertaken of the Trust’s specialised markets pending further data being made available through NHS England. Further detail is outlined within section 2.9 of the main OBC.

It should be noted that the Vascular Services Chapter (Chapter Q) captures activity associated with adults and children.

The total elective income (specialised and non-specialised) associated with vascular services (HRG Chapter Q) in 2013/2014 in this analysis was £75,695,431 of which £20,437,766 (27%) was designated as specialised.

The peer group selected for market analysis was:

- University Hospitals of Leicester
- Coventry and Warwickshire University Hospital
- University Hospitals of Birmingham Foundation Trust
- Cambridge University Hospitals Foundation Trust
- Royal Liverpool and Broadgreen University Hospitals NHS Foundation Trust

The total elective **specialised activity** associated with this peer group and HRG Chapter Q in 2013/2014 was 2430 spells (18%) of the specialised activity associated with Chapter Q.

The total elective **specialised income** associated with this peer group and HRG Chapter Q in 2013/2014 was £4,427,047 (17%) of the specialised activity associated with Chapter Q.

Based on the **peer group** analysed and the methodology adopted UHL has 19% of the activity associated with Chapter Q for this peer group. Its key competitors in activity terms are

DRAFT

Cambridge (26%) and Birmingham (29%). In respect of surrounding hospitals the level of activity undertaken by UHL exceeds that of Liverpool (14%) and Coventry and Warwickshire (12%). More detailed analysis is required to accurately assess the impact Nottingham has in this market. This will be undertaken in support of the FBC.

The outcome of the updated market analysis to be undertaken needs to be carefully considered when assessing the target market for expansion of specialised vascular procedures. The intial focus will centre on developing pertnership working arrangements with Lincolnshire and Northamptonshire.

Future Capacity

Moving vascular services from LRI to Glenfield Hospital will afford the vascular service a dedicated base of 32 beds including 8 assessment unit beds (see Appendix 1 for activity modelling information).The team have identified a number of efficiencies that the can be made to ensure that 32 beds provide the required capacity for their service. This will facilitate and expedite admissions for emergency flow and will also reduce the amount of elective cancellations on the day. Cancellations on the day of surgery are currently experienced by the service as a direct consequence of other specialities competing for beds on the LRI Site and the inability to secure ITU/HDU beds. This reconfiguration will be supported by a Consultant Vascular Surgeon based at the Leicester Royal (LRI) site who will triage ED, give inpatient opinions and operate on emergency cases which are too unstable to transfer to GH. Locating vascular surgery at GH will also allow the development of a seamless service for patients with complex aneurysm disease.

With the likely retirement of 2-3 vascular surgeons over the forthcoming 5-10 years; in order to attract individuals of a similar calibre and maintain the endovascular trained surgeons already present the department will need to ensure endovascular opportunities are made available including the complex major FEVAR/BEVAR etc. Furthermore, trainees will not choose to come to a unit that doesn't offer the full spectrum of open and endovascular training in line with the new vascular curriculum. Since the East Midlands regional vascular surgical training programme is based upon trainee's choosing their training centres, any failure to attract trainees would negatively impact upon the service.

DRAFT

1.2 Strategic Case

A Blueprint for Health & Social Care in LLR 2014 - 2019

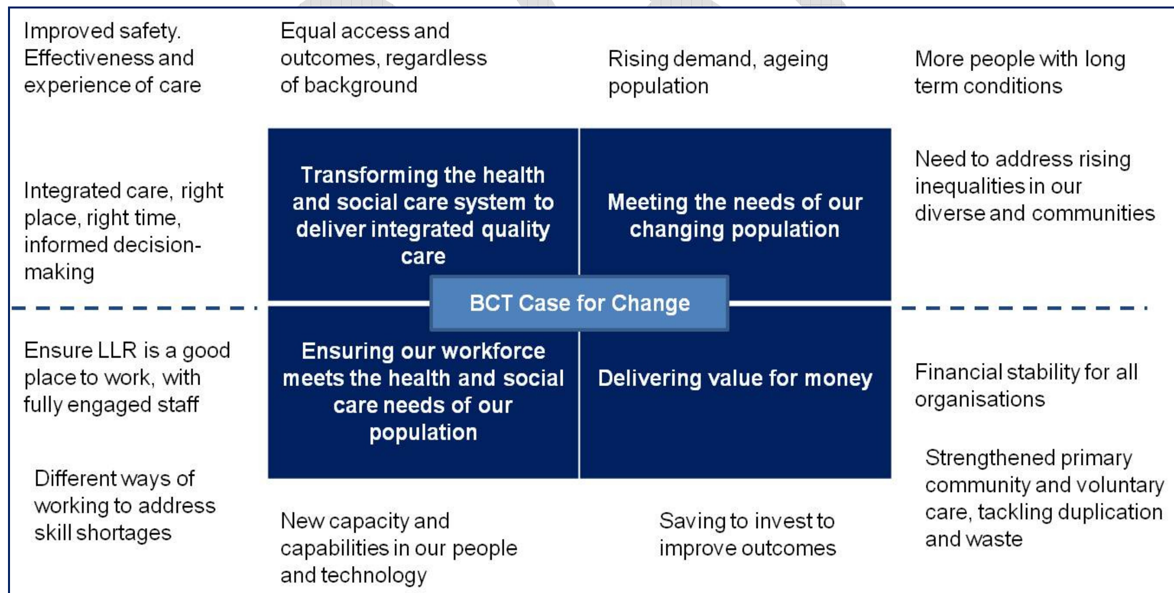
The Better Care Together (BCT) programme represents the biggest ever review of health and social care across Leicester, Leicestershire & Rutland (LLR). The programme represents a partnership of NHS organisations and local authorities across LLR, working together to achieve major transformation in the current and future delivery of services that are of the highest quality and are capable of meeting the future needs of local communities.

The programme is underpinned by a clear case for change, the impact of this for UHL is:

- Smaller hospitals overall
- Fewer acute hospital beds
- A greater focus on specialised care, teaching and research
- Re-developing the Accident and Emergency department at the LRI
- Concentrating acute services on two sites rather than three
- Reshaping services on the Leicester General Hospital site including community beds and the Diabetes Centre of Excellence.

The BCT case for change is summarised in the diagram below:

Figure 1 Better Care Together Case for Change



The transfer of vascular services from LRI to GH releases key clinical space at LRI that will facilitate the delivery of a one site surgical take at the LRI. This will also allow co-location of cardio-vascular service in one place, at the GH thereby providing the right environment to drive up clinical and patient reported outcomes. This is integral to UHL's Five Year Strategy. .

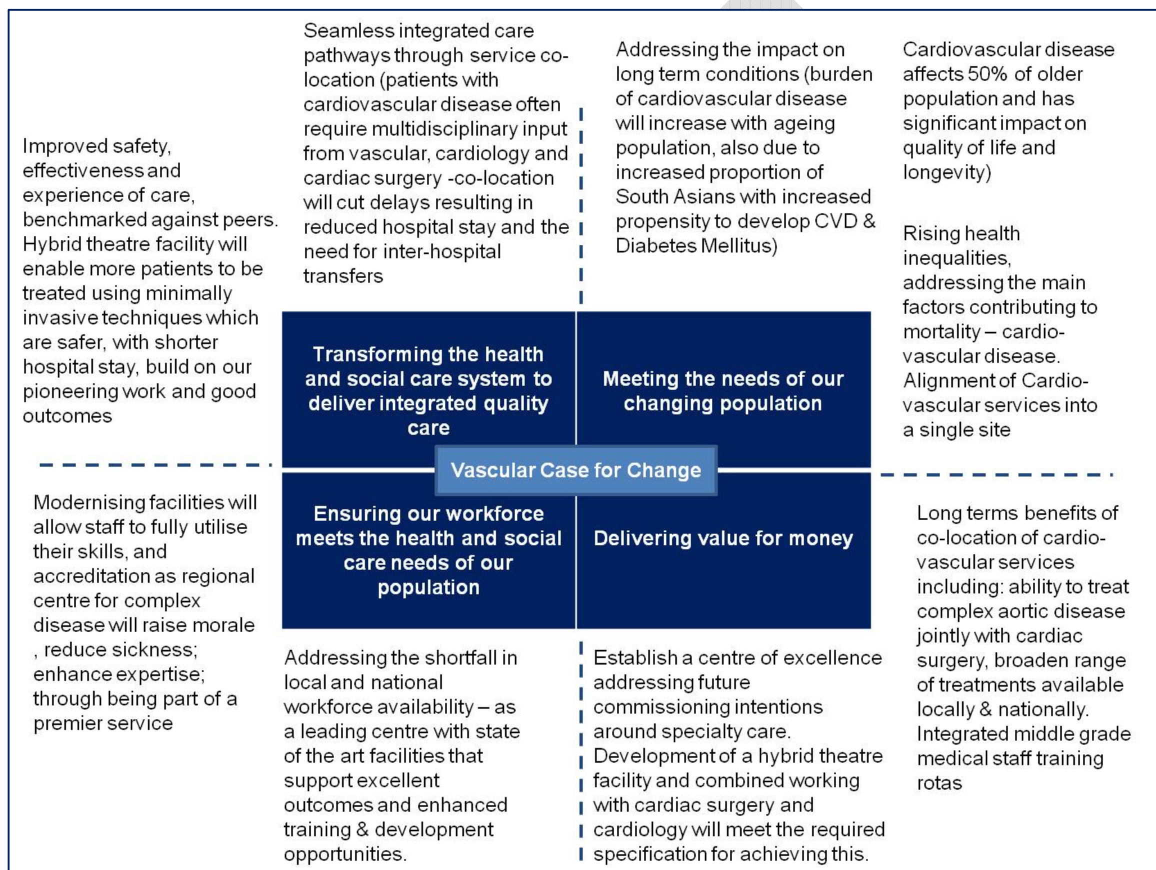
- The Trust will build on its strengths in specialised services, research and teaching; offering faster access to high quality care, developing staff and improving patient experience. The Trust refers to this vision as 'Caring at its best'.

The future co-location of cardiology and vascular services at the Glenfield Hospitals supports the delivery of:

- Specialised hospital focus with the intention for cardiology; vascular; respiratory and renal services ultimately being located on the GH site
- Co-location and shared management plans to focus on identified health need requirements and a more holistic approach to care delivered

Utilising the BCT Case for Change Framework this can be summarised in the diagram below:

Figure 2 Vascular Services Case for Change



In addition the transfer of vascular services supports the following Trust aims and objectives:

- An effective, joined up emergency care system
- Responsive services which people choose to use
- Integrated care in partnership with others
- Enhanced reputation in research, innovation and clinical education
- Delivering services through a caring, professional, passionate and valued workforce

- A clinically and financially sustainable NHS Foundation Trust

A corporate decision has been taken that this project will progress outside and ahead of the site-wide reconfiguration programme. The rationale for this decision being that the creation of additional theatre and imaging capacity, along with the conversion of inefficient clinical space into ward accommodation will strengthen the provision of services on the Glenfield Hospital site, in alignment with the general direction of the Trust's published Strategic Direction 2012-2022.

The strategic drivers for this project are identified as:

Enhancement of the quality of care in terms of both the seamless pathways for the model of care and patient flow.

- The requirement for closer working with Cardiology /Cardiothoracic Surgery services in order to improve the patient experience and achieve re-designation as a Level One vascular unit.
- A comprehensive integrated cardiology, cardiac surgery, and vascular service will provide the best possible care to our patients with cardiovascular disease. It will also build on our existing achievements to maintain Glenfield as a centre of excellence for the management of cardiovascular disease.
- Vascular surgery (and interventional radiology) is essential for the sustainability of the cardiac surgery and cardiology services. In the main this is because both cardiology and cardiac surgery patients often suffer complications that require immediate treatment by the vascular team.
- Current approaches to hybrid procedures are relatively inefficient requiring surgical and anaesthetic teams to operate in an environment that is not conducive in accommodating large numbers of people and equipment. A purpose built Hybrid Theatre facility embedded within the existing theatres complex will improve efficiency in the provision of these services thus enabling full utilisation of existing theatre and recovery facilities which this activity requires.
- Increasing the acute inpatient bed base at Glenfield Hospital, recognising its position as a provider of specialist care
- Maximising the utilisation of theatre capacity at Glenfield Hospital, recognising its position as a provider of specialist care
- Vacating acute inpatient bed base at Leicester Royal Infirmary in anticipation of the single site take for surgery project
- Ensuring that the health needs and expectations of the local population are met, in line with Trust clinical strategy and National ,Trust and local health economy KPI's
- Ensuring the built environment enhances clinical practice that supports clinical effectiveness, improved patient outcomes and enhanced patient safety

The Vascular Project is key in supporting the Trusts Five year plan and service strategies for the future, by increasing specialist services on the GH site and by releasing both bed and theatre capacity at the LRI. In the context of national, regional and Trust strategies, it is recognised that investment is required to achieve the project objectives. The proposals outlined in this OBC provide a range of options that will enable the Trust to achieve these aims.

1.3 Economic Case

Using critical success factors as criteria a long list of options was compiled and then this was appraised to identify a short list of options to take forward into a full appraisal process. Following

DRAFT

the conclusion of this detailed long-listing and short-listing process the preferred option both clinically and financially is:

Option A	Refurbishment of existing space on the first floor at Glenfield Hospital to include Vascular Ward (Ward 23a), Angiography Suite and a new build extension to incorporate the Hybrid Theatre - additional office accommodation to be provided from within the retained estate.

The 'Do Nothing approach' is not a viable solution for this project. Future designation of vascular services is dependent upon the co-location of Cardiology/Cardiothoracic services and the provision of a Hybrid Theatre. The 'Do Nothing' option (i.e. not transferring the service) not only jeopardises the future provision of vascular services at UHL but also impacts upon UHL's site wide reconfiguration programme of which this project is seen as the first key enabler.

The transfer of Vascular Services facilitates the following service efficiencies:

Table 2 Service Efficiencies

Efficiencies	Measured
Reduced average length of stay (including pre and post-op LOS)	Activity Data
The Hybrid theatre will enable a significant number of patients to be treated in a single session rather than separate radiological and surgical procedures as is current practice.	Activity Data
Increase in minimally invasive procedures reduces time spent in Critical Care beds	Activity Data
Co-location with cardiology/cardiothoracic services will reduce journeys for cardiac patients who currently travel from GH to LRI for scans	Patient Satisfaction / Activity Data
Hybrid Theatre facilitates increasingly complex procedures, yet offers flexibility to revert to open procedure if required	Activity Data / Consultant Information
Reduction in cancelled operations due to dedicated bed base	Activity Data
Dedicated beds for Angiography day cases will reduce cancellation rates for patients as well as relieving pressure on inpatient beds	Activity Data
Better patient experience through improved and optimised pathways including reductions in readmissions	Patient Satisfaction / Friends & Family Test
Increased surgical assessment unit capacity at LRI will improve patient flow and streamline the admission process from the front door	Patient Satisfaction / Activity Data
Positioned as pre-eminent total Cardiovascular Institute serving the region and beyond	Re-designation as Level One service

1.4 Commercial Case

Early appointment of contractors to work in partnership with the Trust to deliver the Full Business Case (FBC) can reduce significant elements of risk associated with the detailed design process. The following options are available to the Trust for procurement of construction:

Table 3 Summaries of Procurement Options

	Option	Comment
1	Traditional Tender	OJEU Tender routes; minimum 4 months to appoint contractors following approval of FBC; full specification and schedule of works for tender would be drafted without construction input, bringing potential additional risk.
2	Procure 21+	High Level Information Pack (HLIP) could be issued now to engage PSCP at stage 3 such that they work up the FBC/GMP in partnership with the Trust. Approx 4-6 weeks to appoint a PSCP (post HLIP issue). 4-6 months following appointment to achieve GMP for FBC approval. No further tender time required. Risk sharing partnership approach.
3	Procure the scheme through UHL's framework partnership with Interserve Facilities Management (IFM)	Under the bespoke framework, IFM is appointed as prime contractor for the delivery of projects; commercial arrangements and contracts are pre-agreed to cover commissioning of the business case through to final delivery of the asset using an NEC3 Option C (Target Contract with Activity Schedule). Cost savings and overspends are split between the Trust and the Client based on previously agreed splits which will engender a spirit of partnering and collaboration within the Project Team. The risk of cost overrun is transferred to IFM once the GMP has been agreed and construction stage commenced.

It is recommended that the scheme will be procured through Option 3; UHL's framework partnership with Interserve Facilities Management (IFM).

Following the decision to award the contact there is an opportunity for the Hybrid Theatre to be procured via a subcontractor to the main contractor or alternatively a Turnkey provider can be engaged to bring expertise to the process.

1.5 Financial Case

The transfer of Vascular Services is a first stage enabler for the Trust's Strategic Outline Case / Development Control Plan and as such it should be borne in mind that the cost basis of this move has a 'bigger picture' impact for the Trust.

The **capital costs** of the preferred option total **£12.3M*** including decant costs & forecast out-turns inflation (£11.9m with a c£450k VAT recovery allowance).

The total additional **revenue costs** of the scheme in steady state (2022/23) are **c£602k** per annum.

DRAFT

Table 4 Summary Financial Position

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Baseline Costs										
Income	10,842	10,625	10,625	10,625	10,625	10,625	10,625	10,625	10,625	10,625
Expenditure	9,070	9,070	9,070	9,070	9,070	9,070	9,070	9,070	9,070	9,070
Overheads	2,784	2,784	2,784	2,784	2,784	2,784	2,784	2,784	2,784	2,784
I&E	-1,012	-1,229	-1,229	-1,229	-1,229	-1,229	-1,229	-1,229	-1,229	-1,229
Single Site Move Costs										
Additional Income				276	368	368	368	368	368	368
Recurrent costs				421	561	561	561	561	561	561
Depreciation & Capital Charges				359	467	456	444	432	420	409
Transitional Costs				467	406	333	83			
Total				-971	-1,066	-982	-720	-625	-613	-602
Financial Position Post Site Relocation	**-1,012**	**-1,229**	**-1,229**	**-2,200**	**-2,295**	**-2,211**	**-1,949**	**-1,854**	**-1,842**	**-1,831**
Further Additional Opportunities/Validation										
Clinical Coding (Pending Outcome of E&Y Service Review)			488	975	975	975	975	975	975	975
Improvement in PLICS position following ongoing internal review		450	450	450	450	450	450	450	450	450
Future partnership working increasing activity					271	271	271	271	271	271
Counting & Coding unbundled imaging tariff			167	167	167	167	167	167	167	167
Further efficiencies, increases in market share and Transformation							150	150	150	150
Total of Further Opportunities and Validation	0	450	1105	1592	1863	1863	2013	2013	2013	2,013
Net Position	**-1,012**	**-779**	**-124**	**-608**	**-432**	**-348**	**64**	**159**	**171**	**182**
Vacated Capacity (LRI)				761	1,424	1,424	1,424	1,424	1,424	1,424

The '**Total Income'** position reflects the existing position of Vascular. There is also an offset due to the reduction of the Payment by Results tariff from 14/15 onwards (c. 1.2% reduction compared to 13/14).

The '**Single Site Move Costs'** reflects additional costs incurred by Vascular minus the predicted additional income. These vary annually incorporating changes resulting from the single site surgical take commencing at LRI and the transfer of Renal / HPB Services from LGH to GH – until a 'steady state' position is achieved in 2022/23 of £602k p.a.

The Vascular Surgery Service is projected to have a surplus net position in the financial year 2019/20.

The project assumes a steady state in relation to baseline income. The vascular additional income position will be significantly improved following the below and we believe that the outcome of these will mitigate the additional true costs to vascular:

- Clinical coding (pending outcome of Vascular Service Review supported by EY)
- Improvements to PLICS position following ongoing internal Trust review
- Future partnership working increasing activity (income)
- Re-designation as Level One Cardio-Vascular service increasing tertiary activity (income)

1.5.1 Vascular Service Review

The move of vascular services provides the opportunity to maximise service co-locations and enhanced efficiency. The defined efficiency measures within the OBC have been reviewed as part of the Vascular Service Review (supported by Ernst & Young) to assess the deliverability. There are further potential efficiencies to be realised through combined workforce solutions and enhanced space utilisation through design. The full findings of the Service Review (EY) will be available in August and will be reflected in the Full Business Case. At this stage the observations and benefits identified can be summarised as:

Table 5 Service Review

Business Case Benefits	Service Review Observations	Target/Benefit
Reduces average length of stay	High LOS observed e.g. amputation of leg – delays to discharge Average LOS between 3.63 and 22.76 days for top 10 procedures	Reduce LOS – reduce no of bed days – increase efficiency and throughput Improve outcome for patients on defined clinical pathways
Reduced cancellations	13% (1,143) hospital outpatient cancellations in 2013/14	Outpatients increased efficiency – reduced level of cancellations and improved slot utilisation
Increased elective procedures	Opportunity to become service provider of choice in the East Midlands Region	Enhancing market share within East Midlands Improved capture of activity undertaken through enhanced coding

DRAFT

Improved theatre utilisation	Opportunity to improve theatre utilisation by eliminating delayed starts – 172 hours over the year (2013/14) Unavailability of ward beds is the primary reason for hospital cancellations	Improve utilisation of resources and theatre time – patient readiness for theatre; managing patient flows Dedicated bed base for vascular. Defined day case beds supporting angiography

A key element of the Service Review is targeting the PLICS data and the future accurate baseline costs to underpin the service.

Observations include:

- Outpatients first and follow-up make a significant loss c£630k
- Medical staffing costs for electives is twice that of non-electives
- Imaging costs are 11% of the total expenditure

1.5.2 Workforce Statement

The total additional long-term staffing requirements for Vascular, to support the move from LRI to GH, are 9.56wte. These comprise:

- **6.59wte** Imaging Staff: recognising that the transfer from LRI to GH requires Angiography Imaging on all three UHL sites (as opposed to two as at present).
- **1.97wte** Vascular Nursing: recognising the higher acuity of emergency admission patients that will be treated on the VEAU. The co-location of VEAU immediately adjacent to the vascular ward ensures the optimum care for vascular patients.
- **1wte** Vascular Medical: to be based at LRI to triage ED, give inpatient opinions & operate on emergency cases that are too unstable to transfer to GH.

The final workforce model has been through a rigorous 'confirm and challenge' process (see 3.4.1) with representatives from all services involved. As a result of this there have been significant reductions in the numbers of staff required to support the transfer of vascular services long-term.

13.83wte transitional staff is required; this figure recognises the transfer of vascular services as the first stage in the transformation of the UHL estate. The additional staff support the position until the single site surgical take (assumed at 12 months post vascular transfer), and more pertinently the transfer of Renal Services / HPB from LGH to GH (assumed as three years following the move of vascular). These transitional costs are therefore only incurred until 2019/20.

36.13wte staff is included within the 'double running' costs; this figure reflects the staff resource that remains at LRI and can be deployed on alternative patient service improvement and income generating activities.

DRAFT

Each CMG has signed off the baseline workforce information and, where applicable, the additional workforce required. The key stakeholders from each service have been represented in the Project Board.

The full workforce model is detailed in Table 38.

1.6 Management Case

The programme anticipating completion is set out below:

Table 6 Project Programme

Milestone	Date
Capital Planning & Investment Committee	27th June 2014
Executive Board recommendation to support OBC	15th July 2014
Finance & Performance Committee support for OBC to be approved by TB	30th July 2014
Trust Board Approval of OBC	31st July 2014
NTDA submission of OBC for approval	4th August 2014
Detailed Design & Full Business Case (FBC) Development	August 2014 – January 2015
Capital Planning & Investment Committee	February 2014
Executive Strategy Board recommendation to support FBC	March 2015
Finance & Performance Committee support for FBC to be approved by TB	March 2015

**Detailed design period assume progression of design prior to NTDA approval*

The project will be managed using PRINCE 2 compliant methodology and project management tools such as Gantt charting and critical path analysis. Project direction and management will be determined by the Project Board. It is critical that a project lead is identified on both the Estates and Clinical sides, and that personnel are given the appropriate resources, particularly time, to fulfil their roles.

1.7 Conclusion

The business case is central to the realisation of the vision for Vascular Services and is a key first stage move in the Trust's Five Year Strategy. Each of these objectives link to the long-term strategy of the service and the wider Trust:

- A comprehensive integrated vascular, cardiology and cardiac surgery service will provide the best possible care to our patients with cardiovascular disease.
- Vascular service re-designation; Aortic Service designation
- Improved efficiencies through dedicated vascular imaging capacity
- Increasingly complex activity undertaken generating additional income for the Trust
- Redevelopment and increased capacity providing opportunities for the Trust to fulfil the Trusts overall strategic transformation programme

The costs associated with this service move are:

- Capital Costs: £12,349,819 (accounted for in approved Capital Programme 14/15 & 15/16)
- Revenue Costs: The total additional costs of the scheme in steady state (2022/23) are c£602k per annum
- Loss of Status without re-designation: not financially quantifiable

The key actions and decisions required to realise this vision are:

- Support for the capital investment
- Support for the additional revenue costs recognising that a significant amount are time-limited
- Confirmation of the preferred route for the procurement of the construction
- Confirmation as to the preferred route for the procurement of the specialist Hybrid Theatre equipment
- Approval for the business case to be submitted to the NTDA.

Signed:...
Senior Responsible Owner

Signed:...

Signed:...

CMG Director (s)

Signed:...
Clinical Lead

Signed:...
Executive Sponsor

Date:..

DRAFT

CAPITA

We | Listen Create Deliver

Leeds office
3rd Floor, The Cube | 123 Albion Street | Leeds | LS2 8ER