

# Addendum to Vascular Business Cases v2

Author: Paul Gowdridge Sponsor: Kate Shields Date: Trust Board 6.8.15 updated addendum to paper F  
(amendments highlighted in yellow)

## Executive Summary

### Context

Three business cases were presented to IFPIC for review and approval prior to proceeding to Trust Board on 6th August 2015. The component vascular business cases are:

- ICU Enabler 1: Vascular Ward FBC
- ICU Enabler 2: Vascular Angiography and VSU FBC
- Vascular Hybrid Theatres FBC

IFPIC supported the onward submission of these cases to the Trust Board, on the condition that they were accompanied by an addendum (to be circulated on Tuesday 4<sup>th</sup> August 2015) which covered:

- a) An update on the revenue costs and associated capital charges of the ICU and Vascular projects;
- b) Confirmation of how increased costs will be incorporated into the Long Term Financial Model (LTFM);
- c) Confirmation of how value for money is being achieved with respect to capital costs;
- d) An assessment of the return on investment for the Hybrid.

### Questions

1. What is the recommendation for managing the latest revenue costs associated with ICU and Vascular projects?
2. Does the additional information support Trust Board approval the three Vascular business cases?

### Conclusion

1. It is recommended that the cost pressures resulting from these developments are funded from within the c£4m per annum allowance made in the Financial Strategy for annual operating cost pressures.
2. Noting conclusion 1, we believe the additional information demonstrates that there is a robust process for achieving value for money in the capital costs associated with the Vascular Business Cases, that the Hybrid Theatre business case represents an acceptable return on investment and that the Trust Board should therefore approve the three Vascular Business Cases.

### Input Sought

In light of this addendum, we request that Trust Board consider and **approve** the three Vascular Business Cases.

# For Reference

1. The following objectives were considered when preparing this report:

Safe, high quality, patient centred healthcare	Yes
Effective, integrated emergency care	Yes
Consistently meeting national access standards	Yes
Integrated care in partnership with others	Yes
Enhanced delivery in research, innovation & ed'	Yes
A caring, professional, engaged workforce	Yes
Clinically sustainable services with excellent facilities	Yes
Financially sustainable NHS organisation	Yes
Enabled by excellent IM&T	Yes
  
2. This matter relates to the following governance initiatives:

Organisational Risk Register	Yes
Board Assurance Framework	Yes
  
3. Related Patient and Public Involvement actions taken, or to be taken:

Healthwatch representation sits on the ICU Project Board.
  
4. Results of any Equality Impact Assessment, relating to this matter:

This will be carried out once design has commenced.
  
5. Scheduled date for the next paper on this topic: TBC
  
6. Executive Summaries should not exceed 1 page. My paper does comply
  
7. Papers should not exceed 7 pages. My paper does comply

**TO: TRUST BOARD**  
**FROM: DIRECTOR OF STRATEGY**  
**DATE: 6<sup>th</sup> AUGUST 2015**  
**SUBJECT: ADDENDUM – VASCULAR PROJECTS**

---

**1. Background**

1.1. The three vascular business cases were discussed at the IFPIC on July 30th prior to submission to the Trust Board for approval on August 6th. IFPIC requested that the cases were considered in light of additional information requested as follows:

- a) An update on the revenue costs and associated capital charges of the ICU and Vascular projects;
- b) Confirmation of how increased costs will be incorporated into the Long Term Financial Model (LTFM);
- c) Confirmation of how value for money is being achieved with respect to capital costs;
- d) An assessment of the return on investment for the Hybrid Theatre.

**2. Response**

**a) An update on the revenue costs and associated capital charges of the ICU and Vascular projects**

2.1. The majority of revenue cost issues with ICU and Vascular business cases are driven by **workforce costs**. Table 1 below summarises the workforce costs between the finalised Vascular business cases and the draft ICU cases.

**Table 1:** 5 year workforce summary

	2015/16	2016/17	2017/18	2018/19	2019/20
	£k	£k	£k	£k	£k
Critical Care beds	57	587	631	631	-
Beds and theatres capacity	-	285	380	380	-
Imaging	-	223	298	298	-
<b>Subtotal ICU</b>	<b>57</b>	<b>1,095</b>	<b>1,309</b>	<b>1,309</b>	<b>-</b>
Hybrid Theatre	-	25	101	101	101
Wards	-	977	942	942	120
Angiography & VSU	-	22	22	22	-
<b>Subtotal Vascular</b>	<b>-</b>	<b>1,024</b>	<b>1,066</b>	<b>1,066</b>	<b>221</b>
<b>Total increase in workforce</b>	<b>57</b>	<b>2,119</b>	<b>2,374</b>	<b>2,374</b>	<b>221</b>

2.2. This draft position excludes outstanding mitigations which are still to be verified. The need for 4 additional middle grades in the General Surgery rota is under review as further clarity is required regarding current funded establishments.

- 2.3. The revenue impact is also influenced by the levels of **Vascular activity** anticipated. Review of the Vascular activity projection has identified circa £382k of additional income as a result of securing Northampton and Lincoln work.
- 2.4. This additional work may increase workload on theatres and as a result there will be costs related to this activity of more than consumables. Assuming a 30% marginal cost, the contribution relating to this additional activity would be £267k. This income has been included in table 2 below. There is further scope and capacity to accept additional work from elsewhere and work is on-going to confirm this.
- 2.5. The final area of revenue impact is **capital charges**. Vascular capital charges are as presented in the main business case documents. The ICU capital costs have not yet been confirmed but are anticipated to be between £21.7m to £27.8m, **although this will be subject to further challenge (see 2.16 to 2.19 below)**. The range is a result of is the final value being dependent on what the final requirements for Glenfield are, and what level of new build there will be.
- 2.6. Based on the lowest end of the range (£21.7m capital costs), 40% new build and an interest rate of 2.5% indicative capital charges have been calculated. This shows the Trust would need to allow for £550k of interest and £220k depreciation, assuming refurbishment costs are impaired. The Trust would also need to repay any loan at the rate of £880k per annum. These costs are included in table 2 below.

## **b) Confirmation of how increased costs will be incorporated into the Long Term Financial Model (LTFM)**

### **Revenue Impact on LTFM**

- 2.7. Table 2 below demonstrates that collectively these developments cause a net recurrent increase in revenue operating costs of c£1.0m per annum relating to c£1.3m capital charges (non-operating costs), c£0.6m operating cost increases (recurrent pay and non-pay) offset by £0.9m additional income.
- 2.8. In addition, there is a net non-recurrent increase in operating costs of c£2.2m per annum anticipated between 2016 and 2019 until reconfiguration and site rationalisation is complete. This position is believed to be a prudent assessment with further work required to mitigate some of the ICU costs described above in 2.2, potential for further income to be included as described in 2.4 and assuming that capital costs can be managed down to the lower end of the range described in 2.5.

**Table 2:** Draft total I&E impact

	2015/16	2016/17	2017/18	2018/19	2019/20
	£k	£k	£k	£k	£k
Recurrent pay	-	(144)	(221)	(221)	(221)
Non-recurrent pay	(57)	(1,975)	(2,154)	(2,154)	-
<b>Total pay</b>	<b>(57)</b>	<b>(2,119)</b>	<b>(2,374)</b>	<b>(2,374)</b>	<b>(221)</b>
Recurrent non-pay	-	(72)	(265)	(350)	(350)
<b>Total operating expenditure</b>	<b>(57)</b>	<b>(2,191)</b>	<b>(2,639)</b>	<b>(2,724)</b>	<b>(571)</b>
Recurrent income		283	869	869	869
Recurrent non-operating costs	(209)	(914)	(1,271)	(1,309)	(1,371)
<b>Total income and expenditure</b>	<b>(266)</b>	<b>(2,822)</b>	<b>(3,042)</b>	<b>(3,165)</b>	<b>(1,073)</b>
Of which is:					
Recurrent	(209)	(847)	(888)	(1,012)	(1,073)
Non recurrent	(57)	(1,975)	(2,154)	(2,154)	-

- 2.9. When the business cases were considered by the Integrated Finance, Performance and Investment Committee (IFPIC), the management of affordability issues required further clarification. Each of the Vascular business cases have been amended since IFPIC to clarify what the affordability issues are in each case.
- 2.10. Overall, the Trust Financial Strategy, approved by the Trust Board on 4th June 2015, assumes that the operating cost impact of site reconfiguration will be zero and the non-operating costs impact will be as per the capital programme. The capital charges (non-operating costs) of c£1.3m per annum are therefore included within the financial strategy whereas the c£0.3m benefit from additional income offset by operating costs is not. The non-recurrent increase in operating costs of c£2.2m per annum is not included in the financial strategy either. This is demonstrated in table 3 below.

**Table 3:** Total I&E impact on Financial Strategy

	2015/16	2016/17	2017/18	2018/19	2019/20
	£k	£k	£k	£k	£k
Total recurrent I&E	(209)	(847)	(888)	(1,012)	(1,073)
Add back: non-operating costs	209	914	1,271	1,309	1,371
<b>Recurrent I&amp;E impact on Financial Strategy</b>	<b>-</b>	<b>67</b>	<b>383</b>	<b>298</b>	<b>298</b>
Total non-recurrent I&E	(57)	(1,975)	(2,154)	(2,154)	-
<b>Total I&amp;E impact on Financial Strategy</b>	<b>(57)</b>	<b>(1,908)</b>	<b>(1,771)</b>	<b>(1,856)</b>	<b>298</b>

- 2.11. Therefore, if the Trust is to maintain the deficit reduction trajectory in the Financial Strategy the total impact of this development of c£1.9m per annum for 3 years (before the £0.3m net benefit is recurrently delivered) is only affordable if either:

- CIP targets are increased to offset these costs
- Transitional income is secured to offset these costs
- The development is funded by the c£4m per annum allowance made in the Financial Strategy for annual unidentified operating cost pressures.

- 2.12. The business case production process has led to a number of additional cost pressures being identified before subsequent, clinically led, confirm and challenge processes have been conducted to remove excess costs and leave only the essential costs required to achieve the necessary changes. The results of this process are confirmed as sustainable by all clinical and operational teams involved and will not therefore result in any further cost pressures being identified in future financial planning.

**Recommendation regarding management of revenue impact on LTFM**

- 2.13. On this basis it is **recommended** that the cost pressures resulting from these developments are funded from within the c£4m per annum allowance made in the Financial Strategy for annual operating cost pressures.
- 2.14. In making this recommendation it must be recognised that during the 2015/16 financial planning round there were £8.5m of discretionary costs submitted that had no source of funding (either via new income or reduced expenditure) and for which there was a decision over whether to invest. In total £3.6m of cost pressures were funded, with a recurrent cost of £3.8m. This was funded via a £2m increase in the CIP target and a £1.8m increase to the income target. In addition to this there were £2.6m of unavoidable cost

pressures associated with contractual commitments, drug shortages and changes to deanery funding in excess of previous projections.

- 2.15. As a result of the recommendation to fund this development and maintaining the deficit trajectory in the Financial Strategy it requires recurrent delivery of the 2015/16 forecast deficit and may still require an increase to the CIP target or the securing of transitional funding/additional income if material cost pressures are identified during the business planning process for 2016/17.

### **Capital Impact on LTFM**

2.16. The Vascular business cases total £13.2m in capital costs, this is already consistent with the LTFM and Financial Strategy. However, the draft capital costs for ICU highlighted in 2.5 above are a variation from what is currently identified in the 5 year capital plan. Current estimates range between £21.7m and £27.8m whereas there is £13.3m identified in the capital plan.

2.17. The assumption within the overall capital plan is that the difference between what is currently identified in the plan and current estimates (£8.4m to £14.5m increase) will be managed by redistributing capital programme budgets between the generic wards/beds investment on the LRI and GH sites. However, this is a risk when the level of investment required across all major business cases has not been fully worked through.

2.18. Similarly there is an approval risk, since the £5m internal approval threshold will be breached across the 3 ICU business cases by the current estimates.

2.19. When the ICU business cases are finalised during August for Trust Board approval the position on these costs will be concluded, including the impact on the overall capital programme as it is best known at that stage.

### **c) Confirmation of how value for money is being achieved with respect to capital costs**

- 2.20. To ensure value for money, all major project capital investments delivered within UHL apply a combination, if not all, of the following principles in their delivery.

**Table 4:** Value for money process

<b>Challenge</b>	<b>Value for money tested or delivered through</b>
Ensuring that value for money is delivered throughout each key project milestone.	Value for money tested through a cost management process that starts at receipt of design brief stage to manage scope, cost and programme expectation
The deployment of a custodian of the operational brief to test and challenge the CMG and ensure that "waste" is eliminated thus ensuring resource efficiency in the briefing process for the estates annex of the business case/investment.	Value for money delivered through the Operational brief
An estates strategy and Development Control Plan that examines that the investment proposal sits within the Trust' strategic context.	Value for money delivered through the Operational brief

Bespoke guidance developed for UHL Capital Investment in the form of a Project Management Plan.	Value for money delivered through Design brief
The use of chartered construction professionals from the industry selected from competitive tender and healthcare bespoke frameworks e.g. CIOB and RICS.	Value for money delivered in the design, procurement and construction process.
Adherence to guidance as required to meet TDA confirm, challenge and scrutiny (as per ex SHA estates advisor function) e.g. DH Guidance on "How to cost a hospital" and the Capital Investment Manual (CIM).	Value for money tested in the briefing, design, procurement and construction process to benchmark against historical data.

2.21. This approach described above applies to the Vascular business cases. Value for money has been achieved through the development of the operational brief, through to the design brief and then cost modelling at a DCAG (departmental cost allowance guide)/HPCG (health care premises cost guide) level which provides nationally benchmarked data. Detailed cost planning is then undertaken in response to a design solution. Chartered construction professionals support the Trust in the development of the cost plan and then in the challenge and validation of the contractor bids.

#### **d) An assessment of the return on investment for the Hybrid Theatre**

2.22. A high level return on investment analysis has been developed. This has assumed the following:

- A 30 year appraisal profile;
- Additional income and costs highlighted in the FBC;
- Further net benefit from additional income highlighted in 2.4;
- A lifecycle profile which reflects a 50% replacement profile over the appraisal period of 30 years from buildings and a 10 year replacement programme for the Hybrid Theatre equipment.

2.23. Applying the assumptions above allows the return on investment to be calculated as follows:

- 1.21% internal rate of return
- Undiscounted pay back of 26 years

2.24. Although, in normal business circumstances, this would not reflect a good investment it has to be considered in context. The potential income loss if the hybrid theatre investment did not take place is particularly material. A very conservative view of the loss of activity taken when the 'Do nothing option' was appraised earlier in the year indicated a loss of 40 complex cases and 5% of other cases reflecting a loss of income of £350k per annum. This is reflected in the steady decline in activity in recent years which has resulted from UHL's lack of co-location with cardiothoracic and the lack of a hybrid theatre.

2.25. There is also significant potential for generating more income through the hybrid theatre which currently has not been assumed. A sensitivity analysis which shows the level of additional income needed to deliver a return on investment of 5, 10 and 15% is reflected in the table below:

**Table 4:** Return on investment sensitivities

Rate of return required	5%	10%	15%
Approximate additional activity	25 spells	67 spells	116 spells
Additional income needed (£)	£149k	£401k	£698k
Additional contribution (£)	£104k	£281k	£489k

### 3. Conclusion

- 3.1. It is recommended that the revenue cost pressures resulting from these developments are funded from within the c£4m per annum allowance made in the Financial Strategy for annual operating cost pressures.
- 3.2. It must be recognised that this decision combined with the stated intention of deficit trajectory in the Financial Strategy means recurrent delivery of the 15-16 plan is required, together with no material cost pressures being funded without the requirement to deliver CIP to a greater level than that described in the financial strategy. In addition, this recommendation is made on the basis that the costs included are confirmed as sustainable by all clinical and operational teams involved and will not therefore result in any further cost pressures being identified in future financial planning.
- 3.3. It is recommended that the capital cost pressures resulting from the ICU developments are managed within the overall reconfiguration capital programme with the handling of this issue being clarified prior to ICU business case approval.
- 3.4. In this context the additional information in this addendum demonstrates that there is a robust process for achieving value for money in the capital costs associated with the Vascular Business Cases, that the Hybrid Theatre business case represents an acceptable return on investment and that the Trust Board should therefore approve the three Vascular Business Cases.

### Recommendation

- 3.5. Trust Board consider and approve the three component vascular business cases as follows:
- ICU Enabler 1: Vascular Ward FBC
  - ICU Enabler 2: Vascular Angiography and VSU FBC
  - Vascular Hybrid Theatres FBC