

The Shrewsbury and Telford Hospital



NHS Trust

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# **Shropshire Cancer Centre Development**

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## **Volume 1 – Executive Summary**

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**June 2011**

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This document is volume 1 of a suite of 4 volumes which make up the full business case for the development and enhancement the Cancer Services at the Royal Shrewsbury Hospital, with particular emphasis on improving access to and quality of outpatient and day treatment facilities. The list of volumes is:

- Volume 1: Executive Summary
- Volume 2: Main Body Document
- Volume 3: Appendices
- Volume 4: Estates Annexe

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## **1.0 Executive Summary**

### **1.1 Introduction**

The Business Case seeks to address the inadequate environment used for the provision of oncology and haematology outpatient and daycase services at the Royal Shrewsbury Hospital by the development of a modern compliant facility which would enable services to be delivered from appropriate accommodation, thereby enhancing the patient experience and ensuring safe delivery of clinical services.

The Project Objective is:

“As part of the ongoing commitment to enhance patient care for patients with Cancer and Haematological conditions, the Trust will provide enhanced high quality daycare and outpatient facilities for these patient groups. This will be achieved by building a new facility or developing/refurbishing existing departments or a combination of both in order to provide an effective and affordable solution. The facility will provide people from Telford, Shropshire and mid-Wales with a ‘one stop’ facility which is accessible, comfortable and will provide care of the highest standard.”

### **1.2 Changes Since OBC**

There have been no substantial changes to the project since approval of the outline business case, although Head & Neck cancer en-suite facilities are now being provided at the Princess Royal Hospital as part of the Trust's Reconfiguration of services programme, following the confirmation of IOG compliance and the retention of this service at the Trust. The majority of the strategic case, economic case and management case has not changed since the OBC.

### **1.3 Strategic Case**

#### **1.3.1 The Strategic Context**

This business case responds to the strategies and policies listed below:

- Business Strategies
  - Shropshire Cancer Reform Strategy: Action Plan (version 5) 2008
- National Policies
  - Cancer Reform Strategy: Achieving local implementation – second annual report: December 2009
  - Chemotherapy in England: Ensuring quality and safety: August 2009
  - NHS Cancer Reform Strategy: December 2007
  - Applying High Impact Changes to Cancer Care: Excellence in Cancer Care. Produced by the Cancer Services Collaborative Improvement Partnership, February 2005.
  - NHS Plan: 2000 and Delivery the Plan: 2002
  - NHS Cancer Plan: September 2000
- Local Policies
  - Review of Implementing Outcome Guidance in Four Cancer Sites in the Greater Midlands Cancer Network
  - National Chemotherapy Advisory Group Report - Trust Action Plan: January 2010
  - The National Cancer Patient Experience Survey
  - West Midlands Cancer Intelligence Unit survival data

### **1.3.2 The Case for Change**

The investment objectives for the project are:

- Investment Objective 1: Maximising access to services
- Investment Objective 2: Improving the clinical quality of services
- Investment Objective 3: Optimising the environmental quality of services
- Investment Objective 4: Developing existing services and/or provision of new services
- Investment Objective 5: Improved strategic fit of services
- Investment Objective 6: Meeting training, teaching and staff support needs
- Investment Objective 7: Making more effective use of resources
- Investment Objective 8: Providing Flexibility for the Future
- Investment Objective 9: Practicality and Timeliness of Delivery

The main service issues are:

- Services are delivered in 3-4 different places throughout the hospital, meaning that patients need to move around to receive their care;
- Staffing of each area does not allow for any economies of scale;
- Care is being delivered in cramped surroundings, particularly in haematology clinic and daycare which is sub-optimal;
- Waiting and treatment areas do not offer any opportunity for patients to watch TV, move around, listen to the radio etc. Patients are sitting receiving treatment for long periods of time and need to be able to occupy themselves;
- Reception facilities are cramped and privacy is an issue;
- Notes storage is inadequate, which results in staff running from department to department looking for notes;
- There is a lack of counselling facilities;
- Haematology Day Care - The current provision is extremely 'cramped' with 6 treatment chairs and one bed space, all in one room. Patients are sitting within inches of each other and treatment space is extremely limited. There is one small clinic treatment preparation/clinical storage area.

The following service requirements must be met as part of the delivery of this project;

- Individual consult/exam rooms for outpatients;
- Open plan area(s) for day treatment patients with some individual rooms for more invasive treatments;
- Appropriate preparation areas which fully meet current standards;
- Appropriately sized and functionally fit rooms;
- Appropriate support for both outpatients and day treatment areas (e.g. waiting, clean and dirty utilities);
- A modern outpatient and day treatment facility which meet the current national, regional and local policy imperatives;
- Appropriate, statutory compliant accommodation, to provide suitable privacy and dignity for patients.

### **1.3.3 Capacity Requirements**

This section has not been revised since development of the OBC as this is the basis upon which the capacity of the design solution is based and the projections contained within this section have been checked and are still valid.

The current activity is consistent with the modelling and is shown in the table below:

### Outpatients

	RSH	PRH	Grand Total
2010/11 New Attendances	2,209	1,134	3,343
2010/2011 Follow Up Attendances	13,526	3,785	17,311
2010/2011 Total Attendances	15,735	4,919	20,654

Table 1: 2010/11 Outpatient Activity

### Daycase

Values	RSH			PRH			Grand Total
	Clinical Haematology	Clinical Oncology	Total	Clinical Haematology	Clinical Oncology	Total	
2010/2011 Episodes	3,103	7,025	10,128	1,184	310	1,494	11,622

Table 2: 2010/11 Daycase Activity

The following information has been taken from the activity modelling exercise undertaken as part of the 2020 Vision Project. The baseline information for both outpatients and daycase has been taken from the MEDE system and includes all funded activity.

### Outpatients

The baseline activity is for 08/09 and applying the throughput assumptions this translates to the following capacity requirement:

	RSH	PRH	Grand Total
Projected Clinic Rooms Required	8*	4	12

Table 3: Haematology and Oncology Outpatient Capacity Requirements (2020)

\*6 oncology and 2 haematology

### Daycase

The baseline activity is for 08/09 and has been uplifted and applying the throughput assumptions this translates to the following capacity requirement:

Values	RSH			PRH			Grand Total
	Clinical Haematology	Clinical Oncology	Total	Clinical Haematology	Clinical Oncology	Total	
Projected Places Required	8	17	25	3	2	5	30

Table 4: Haematology and Oncology Daycase Capacity Requirements (2020)

### Future Proofing

This project will provide additional accommodation to ensure the building is future-proofed as current indicators show that the demand and capacity requirements are likely to increase. However, it will only involve providing the same capacity in the short term with no increase in revenue costs associated with moving the services to purpose-built accommodation. Any requirement for increased capacity (and therefore staffing) will be subject to normal Trust processes and developed via separate business planning or business cases. Both the Trust and, importantly, Lingen Davies are signed up to this strategy of future-proofing the building to ensure its longevity as a high quality patient environment and recognised that it may not be fully utilised upon opening.

It has therefore been agreed to design the new facilities with the following physical capacity:

	<b>Outpatient Consult/Exam Rooms</b>	<b>Daycase Treatment Places</b>
Haematology	4	11
Oncology	8	25
<b>Total</b>	<b>12</b>	<b>36</b>

*Table 5: Capacity of New Facilities*

## **1.4 Economic Case**

**Note:** the following section describes the option appraisal for the oncology and haematology elements of the project. The improvement of the head and neck cancer inpatient accommodation by the enhancement of existing single rooms with the addition of ensuite facilities will be part of wider Trust discussions on the best option for these patients, therefore this element of the project has not been included within the following sections and the preferred location of this accommodation will be determined outwith this process. However it has been recognised that charitable funds donated explicitly for this purpose will be identified and recognised when the new facility is provided.

### **1.4.1 The Short List**

A long list of options were considered and the following list of short-listed options emerged:

Option 1: Do minimum - This option would leave the accommodation as it is currently and would only include resolving backlog maintenance and a cosmetic 'face lift'. This option does not meet any of the investment objectives and critical success factors but has been carried forward for comparative purposes only.

Option 2: The refurbishment of the Chemotherapy Day Centre (CDC) with a new build extension, providing accommodation for haematology outpatients and day treatment and oncology outpatients and day treatment.

Option 3: A new build facility located between the Radiotherapy Centre and the Ward Block at RSH providing accommodation for haematology outpatients and day treatment and oncology outpatients and day treatment.

Option 4a: The part refurbishment of part of the Radiotherapy Centre at RSH with a new build extension together providing accommodation for haematology outpatients and day treatment and oncology outpatients and day treatment, excluding use of a refurbished/remodelled CDC.

Option 4b: The part refurbishment of part of the Radiotherapy Centre and the existing CDC at RSH with a new build extension together providing accommodation for haematology outpatients and day treatment and oncology outpatients and day treatment.

### **1.4.2 Qualitative Benefits Appraisal**

A workshop was held on the 19<sup>th</sup> May 2010 involving the clinical teams from all disciplines to evaluate the qualitative benefits associated with each option. The benefits criteria were weighted and scores were allocated on a range of 1-10 for each option and agreed by discussion by the workshop participants to confirm that the scores were fair and reasonable.



The chart below shows these scores graphically:

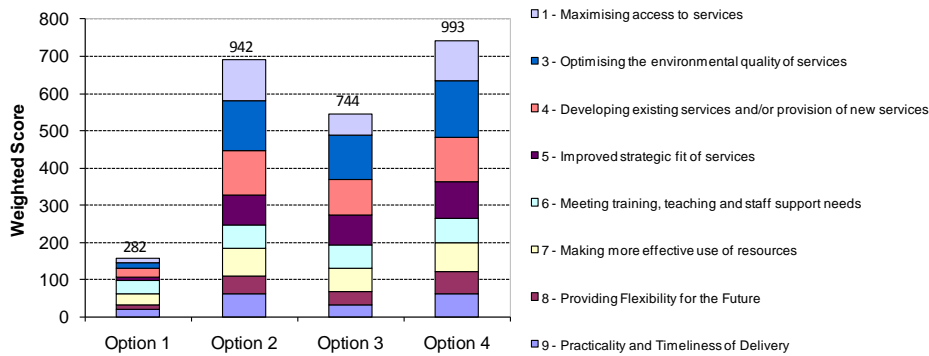


Figure 1: Benefits appraisal scores

For the purposes of the non-financial option appraisal options 4a and 4b were considered jointly as there is no significant difference from a non-financial perspective. This shows a preference for option 4, with option 2 coming a close second. The results of the qualitative benefits appraisal were subjected to a sensitivity test to examine the impact of changes in the weights. The analysis included applying reverse, high, low and no weightings to the criteria. The full results of the sensitivity analysis is included within Appendix I. In summary the results are that under no circumstances does the preferred option change from Option 4.

### 1.4.3 Overall Findings: The Preferred Option

The methodology utilised to determine the preferred option is to divide the net present cost by the benefits appraisal score to determine the 'cost per benefit point'. The results of investment appraisal are as follows:

Evaluation Results	Option 1	Option 2	Option 3	Option 4a	Option 4b
Capital Costs (£)	260,000	5,119,569	5,386,111	5,512,609	4,641,559
Benefits Appraisal	282	942	744	993	993
Cost per Benefit Point	780.14	<b>5434.79</b>	<b>7239.40</b>	<b>5551.47</b>	<b>4674.28</b>
Overall Ranking	N/A	2	4	3	1

Table 6: Summary of overall results

Conclusion: Whilst Option 1 appears to give the most benefit for the least cost it does not achieve the project objectives and Lingen Davies would not be prepared to support this option. In particular options 2, 3, 4a and 4b include provision for additional capacity which is not included within option 1. Therefore, the preferred option is option 4b: the part refurbishment of part of the Radiotherapy Centre and the existing CDC at RSH with a new build extension together providing accommodation for haematology outpatients and day treatment and oncology outpatients and day treatment.

## 1.5 The Preferred Option

The basis of the design of the Cancer Centre at the Royal Shrewsbury Hospital was focused around four main drivers

- To create an enhanced sense of arrival;
- To create an architectural and interior strategy that makes the centre feel as one cohesive facility;
- To utilise a palette of materials that can provide a high quality design within the defined cost envelope;
- To create a genuinely sustainable building that maximises passive design principles and promotes a healing environment.

- The main entrance to the Cancer Centre unit has remained in the same location as the existing. In front of the main door is located the reception area with a clear view to the waiting area, consulting rooms and toilets. The chemotherapy treatment and support areas are located on the ground floor of the rear extension.
- The main reception to the haematology unit is situated opposite the main entrance to this department with a view to the waiting area and toilets. Consulting rooms are in close proximity to the waiting area separated by low level wall, support and chemotherapy treatment areas are located on the first floor of the new rear extension.

Full details regarding the proposed solution, including Architects drawings are contained within Volume 4: Estates Annexe.

### **1.5.1 User Engagement**

Following on from the initial functional diagram, there were a number of meetings with the Users and patients. The key issues that were discussed at the meetings were:

- Building location, orientation and massing;
- Pedestrian and vehicle access;
- Maintaining existing access;
- Room organisation and floor layouts;
- Courtyard and lightwell location;
- The necessity of the proposal terrace.

Aedas through the process created several options for the oncology and haematology departments for review. The internal organisation of the building has been simply arranged which will provide ease of use for the occupiers. The final floor layout was signed off by the Trust on the 2 December 2010.

The user engagement has included launching two competitions for staff and public to name the new facility and supply art for the building – small sculptures, paintings and photographs. Both competitions will be judged later in 2011.

### **1.5.2 Relocation of the cancer clinical research team**

The cancer clinical research team will be relocated to the vacated haematology outpatient/daycase accommodation in clinic 9. The proposed solution may require the clinical research team to be temporarily relocated during the works period. This issue is being address by the Trust and will a solution will be agreed outwith the project which will not impact on the project in either cost or time.

## **1.6 Commercial Case**

### **1.6.1 Procurement Strategy**

The Project Board considered the procurement options at its meeting on Wednesday 17th March 2010 and opted to pursue the P21 procurement route for the following reasons:

- P21 offers the shortest timescales;
- The Trust has a P21 partner in place;
- There is a lower risk of cost over-run with a guaranteed maximum price;
- The operational risks are lower for P21 than traditional routes;
- The timing risks are lower with P21 as partnership working ensures problems are jointly resolved.

## 1.7 Financial Case

### 1.7.1 Capital Costs

Full details of the capital cost for the oncology and haematology element of the project are included within Volume 4: Estates Annexe. The table below gives a brief summary:

	(£)
Works costs	3,681,317
Fees	546,674
Non Works Cost	27,957
Planning Contingency	0
Optimism Bias	0
Total (exclusive of VAT)	4,227,991
VAT @ 20%	634,199
Total (inclusive of VAT) at Reporting Level MIPS 480	4,862,190
Provision of 4 en suites to existing inpatient single rooms for head and neck cancer inpatients	0
<b>Total Capital Costs</b>	<b>4,862,190</b>

Table 7: Preferred Option Capital Costs

Furniture and equipment costs have been excluded from the above figures. This would normally have been an allowance of circa £400,000, assuming all furniture and equipment were to be purchased as new. It is probable, however, that certain items of medical equipment would transfer to the new building, as well as existing staff furniture and equipment and therefore this figure is likely to be lower. During the next stage of development this will be considered in greater detail to determine the exact budget required. Lingen Davies have begun to fund raise for this element of the scheme and that is expected to be circa £200,000.

## 1.8 VAT Recovery Strategy

It is intended that the scheme will be procured via the NHS Procure 21 initiative. As part of the NHS facilities for the procure 21 framework there are two VAT advisors who can be used by a Trust, free of charge, to provide VAT advice and oversee the process of obtaining consent to the level of recovery from HMS Revenue and Customs.

Once the project GMP is agreed the cost advisors will fill in relevant information on behalf of the Trust and submit to the VAT advisor who will then prepare an application to HMS Revenue and Customs. This will include an application for the VAT recovery level and supporting information. HMS Revenue and Customs will provide the Trust with a letter confirming the level of VAT recovery the Trust can apply for on the project. The Trust can apply for this VAT recovery as they wish; after each valuation, at various times during the project, or upon completion of the project. Once the project is complete and final account agreed a final application can be made to HMS Revenue and Customs to confirm the recovery level.

In order to provide initial advice the Trust's cost advisors have already approached one of the NHS VAT advisors and provided information on the project. This has resulted in a predicted VAT recovery of 25% of the total VAT on the GMP sum.

## 1.9 Impact on the Statement of Financial Position

This scheme is 100% funded via charitable funds and the effect upon the Trust's statement of financial position will be:

- Recognition of a donated fixed asset at fair value. The depreciation of the assets will be dependent upon the component asset category and will be depreciated under the relevant asset life as described within the Trust's accounting policies;
- The funding element will be recorded as income and will be shown within retained reserves as a current year movement.

### 1.9.1 Overall Affordability

The capital funding for the project is to be sourced solely from Charitable Funds. The details by Charity stating indicative amounts are detailed below:

Charity	Amount
Lingen Davies Cancer Relief Fund	£3,200,000
The Shrewsbury and Telford Hospital NHS Trust Charitable Funds – Haematology Restricted Fund	£1,000,000
The Shrewsbury and Telford Hospital NHS Trust Charitable Funds – Head and Neck Restricted Fund	£250,000
Head and Neck Charity (Shropshire and Mid-Wales)	£50,000
The League of Friends of the Royal Shrewsbury Hospital	£300,000
<b>Total Funds</b>	<b>£4,800,000</b>

Table 8: Project Budget

The scheme will be revenue neutral and services will be delivered in line with the current annual costs of £879,669. The building itself will be future proofed to provide additional capacity as described within section 1.3.3.

## 1.10 Management Case

### 1.10.1 Project Plan

Key Milestone	Timescales
Full Business Case completed	30 June 2011
Full Business Case approvals process	30 June 2011
Begin construction	22 August 2011
Complete construction / commission	2 November 2012
Go live	30 November 2012

Table 9: Outline Project Plan

### 1.11 Recommendation

The recommended preferred option is option 4b: the part refurbishment of part of the Radiotherapy Centre and the existing CDC at RSH with a new build extension together providing accommodation for haematology outpatients and day treatment and oncology outpatients and day treatment.

- Ground Floor – Main entrance, oncology outpatients and oncology day treatment;
- First Floor – Haematology outpatients and haematology day treatment, with Head and Neck Cancer outpatients.

It is anticipated that the construction period for the new building will be approximately 15 months.

It is recommended that the Trust Board approve this full business case for the investment to develop and enhance the Cancer Services at the Royal Shrewsbury Hospital, with particular emphasis on improving access to and quality of outpatient and day treatment facilities.