Shropshire Cancer Centre Development

Volume 2 – Main Body

June 2011
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This document is volume 2 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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Table 8: Health Indicators – 2001 Census (Taken from the UK Government National Statistics Website) ........25
1.0 The Strategic Case

The business case sets out the rationale for the proposal, it makes the case for change at a strategic level. It sets out the background to the proposal and explains the objective that is to be achieved. The strategic policy context and the fit with the wider policy objectives and the service’s plans are explained.

1.1 Introduction

The central aim of this business case is to set out the arguments and evidence 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.

The business case follows the framework recommended by the Department of Health, which has enabled the Trust to identify and evaluate investment benefits and to demonstrate that the investment is economically sound and financially viable.

Structure and Content of the document

This Outline Business Case (OBC) has been prepared using the agreed standards and format for business cases, as set out within the guidance contained within the Capital Investment Manual.

The approved format is the Five Case Model, which comprises the following key components:

- The strategic case section. This sets out the strategic context and the case for change, together with the supporting investment objectives for the scheme;
- The economic case section. This demonstrates that the organisation has selected the choice for investment which best meets the existing and future needs of the service and optimises value for money (VFM);
- The commercial case section. This outlines the content and structure of the proposed deal;
- The financial case section. This confirms funding arrangements and affordability and explains any impact on the balance sheet of the organisation;
- The management case section. This demonstrates that the scheme is achievable and can be delivered successfully to cost, time and quality.

1.2 Changes Since OBC

There have been no substantial changes to the project since approval of the outline business case. The majority of the strategic case, economic case and management case has not changed since the OBC.

Part A: The Strategic Context

1.3 Organisational Overview

1.3.1 Background

The Shrewsbury and Telford Hospital NHS Trust was formed in October 2003, through the merger of The Royal Shrewsbury Hospital NHS Trust and the Princess Royal Hospitals NHS Trust and is the main provider of district general hospital services for half a million people in Shropshire, Telford & Wrekin and Mid Wales.
The highest priority for The Shrewsbury and Telford Hospital NHS Trust is to continue to improve the quality of the services provided for patients by:

- Improving safety by making major progress to tackle healthcare associated infections such as MRSA and C diff. For example, extended the screening for MRSA.
- Improving effectiveness by making sure that the outcomes of care are amongst the best in the region. The Hospital Standardised Mortality Ratio is significantly better than England averages.
- Improving patient experience through focusing on dignity in care. For example, during 2009 putting in place a £625k programme to continue to improve single sex accommodation.
- 92% of patients rated their care as good or excellent in the most recent annual survey of hospital inpatients.

The Trust vision is to ensure a healthier future and enable high quality care for all for people in Shropshire, Telford & Wrekin and mid Wales through clinically sustainable services in a financially viable NHS Teaching Foundation Trust that puts patient care first.

The Trust’s mission is to provide integrated health services that are consistently excellent and that put quality at the heart of everything they do, by harnessing the commitment and the creativity of the people who work for and with the Trust, and ensuring decisions are made with openness and integrity. Through this the Trust will strengthen its role in the community as the first choice provider of health services and a model employer.

The Trust’s values represent an important commitment that the decisions made will be in the best interests of the people they serve and the people they employ. The Framework of Values has five themes:

- Quality;
- Integrity;
- People;
- Excellence;
- Community.

The Trust’s objectives are:

- Enhancing patient experience, safety and effectiveness;
- Increasing productivity and encouraging innovation;
- Supporting and developing our workforce in a learning organisation;
- Working in partnership as the provider of choice;
- Ensuring a clinically and financially sustainable organisation;
- Achieving NHS Foundation Trust status.

The Trust works through 3 Clinical Divisions:

- Division 1 comprises emergency care (including accident & emergency, medical assessment, trauma and orthopaedics), critical care (including anaesthetics, intensive care, pain management, cardiology and renal services) and general medicine (including acute & specialist medicine and care of the elderly);
- Division 2 comprises cancer and oncology services (including haematology and radiotherapy), women and children’s services (including maternity, gynaecology, fertility, paediatrics and neonatology) and surgery (including breast, colorectal, gastroenterology, upper gastrointestinal, head & neck including audiology, urology and vascular);
- Division 3 comprises pharmacy, medical engineering, imaging (including radiology and endoscopy), theatres (including pre-operative assessment), pathology, therapies and outpatients.
The Trust provides services at the following locations:

**Princess Royal Hospital, opened in 1989:**
- 330 inpatient beds;
- 24 surgical day case beds;
- 20 station renal dialysis unit (13 stations are currently in use, with a further seven available as the need for renal dialysis grows in future);
- 14-bed midwife-led maternity unit.

The Princess Royal Hospital (PRH) provides inpatient, outpatient and daycase facilities. Services include general and acute medicine, cardiology, general surgery, urology, critical care, trauma & orthopaedic services, paediatric services, emergency treatment and renal dialysis.

PRH also provides day case treatment for ENT (ear, nose & throat), oral surgery, ophthalmology, haematology and oncology as well as a 14-bed midwife-led maternity unit.

PRH also has a 100-bed private patient unit (Apley Unit) and private outpatient facility (Apley Clinic).

**Royal Shrewsbury Hospital, opened in 1977:**
- 391 inpatient beds;
- 30 surgical day case beds;
- 16-bed chemotherapy day centre;
- 24 station renal dialysis unit;
- Maternity unit (53 beds in the consultant led unit, 17 beds in the midwife-led unit);
- 6-bed neonatal intensive therapy unit;
- 16-bed special care baby unit.

The Royal Shrewsbury Hospital (RSH) provides inpatient, outpatient and daycase services. Services include general and acute medicine, cardiology, general surgery, urology, gynaecology, critical care, trauma & orthopaedic services, paediatric services, emergency treatment, oncology and ENT.

RSH also provides inpatient and day case treatment for ENT, oral surgery, oncology, haematology, and ophthalmology.

### 1.3.2 Activity

The Trusts activity for 2008/09 and 2009/10 was:

<table>
<thead>
<tr>
<th>Trust Activity</th>
<th>2009/10</th>
<th>2010/11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective and Day case spells</td>
<td>57,144</td>
<td>57,934</td>
</tr>
<tr>
<td>Non-elective spells (including Maternity as below)</td>
<td>46,538</td>
<td>47,586</td>
</tr>
<tr>
<td>Maternity episodes</td>
<td>6,738</td>
<td>6,742</td>
</tr>
<tr>
<td>Outpatient appointments</td>
<td>301,767</td>
<td>322,032</td>
</tr>
<tr>
<td>Accident and Emergency attendances</td>
<td>103,098</td>
<td>106,329</td>
</tr>
</tbody>
</table>

*Table 1: Trust activity for 2008/2009 and 2009/10.*
1.3.3 Financial Context

A summary of the Trust’s financial position for the financial year 2009/10 and 2010/11 is shown below:

<table>
<thead>
<tr>
<th>Trust Financial Position</th>
<th>2009/10</th>
<th>2010/11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from Activities</td>
<td>242,156</td>
<td>257,070</td>
</tr>
<tr>
<td>Other operating income</td>
<td>20,726</td>
<td>20,910</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td>(256,635)</td>
<td>(272,806)</td>
</tr>
<tr>
<td>Surplus before interest</td>
<td>6,247</td>
<td>5,174</td>
</tr>
<tr>
<td>Interest receivable</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>Interest payable</td>
<td>(160)</td>
<td>-</td>
</tr>
<tr>
<td>Other finance costs – unwinding of discount</td>
<td>(38)</td>
<td>(20)</td>
</tr>
<tr>
<td>Profit on Disposal of Assets</td>
<td>(51)</td>
<td>(131)</td>
</tr>
<tr>
<td>Surplus for the financial year</td>
<td>6,012</td>
<td>5,044</td>
</tr>
<tr>
<td>Public dividend capital dividends payable</td>
<td>(5,300)</td>
<td>(5,018)</td>
</tr>
<tr>
<td>Retained surplus for the year</td>
<td>712</td>
<td>26</td>
</tr>
</tbody>
</table>

Table 2: Trust Financial Position for 2009/2010 and 2010/11.

The 2010/11 position excludes £0.351 million of asset impairment as a result of the ‘brought into use’ valuation of a new ward at the Princess Royal Hospital.

The 2009/10 position excludes £12.364 million of asset impairment as a result of the change in asset valuation methodology to a Modern Equivalent Asset (MEA) basis.

A summary of the Oncology and Haematology Services financial position for the financial year 2010/11 is shown below:

<table>
<thead>
<tr>
<th>Income</th>
<th>Pay</th>
<th>Non Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
<td>£</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Haematology</th>
<th>Income</th>
<th>Pay</th>
<th>Non Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 23H</td>
<td>0</td>
<td>(612,156)</td>
<td>(68,095)</td>
</tr>
<tr>
<td>Haematology Clinics</td>
<td>0</td>
<td>(404,088)</td>
<td>(57,668)</td>
</tr>
<tr>
<td>Medical Staff Clinical Haematology</td>
<td>8,194,202</td>
<td>(469,884)</td>
<td>(4,759,900)</td>
</tr>
<tr>
<td>Haematology Medical Secretaries</td>
<td>0</td>
<td>(81,091)</td>
<td>0</td>
</tr>
<tr>
<td>SUB TOTAL</td>
<td>8,194,202</td>
<td>(1,567,219)</td>
<td>(4,885,663)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oncology</th>
<th>Income</th>
<th>Pay</th>
<th>Non Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemotherapy</td>
<td>1,510</td>
<td>(1,155,295)</td>
<td>(173,100)</td>
</tr>
<tr>
<td>Oncology Clinical Trials</td>
<td>87,822</td>
<td>(63,982)</td>
<td>(727)</td>
</tr>
<tr>
<td>Radiotherapy</td>
<td>1,975,874</td>
<td>(868,837)</td>
<td>(845,783)</td>
</tr>
<tr>
<td>Medical Staff Radiotherapy</td>
<td>11,541,128</td>
<td>(1,403,995)</td>
<td>(4,048,508)</td>
</tr>
<tr>
<td>Oncology Medical Secretaries</td>
<td>0</td>
<td>(117,803)</td>
<td>0</td>
</tr>
<tr>
<td>Palliative Care</td>
<td>59,952</td>
<td>(122,997)</td>
<td>(152)</td>
</tr>
<tr>
<td>Clinical Nurse Specialists</td>
<td>0</td>
<td>(164,229)</td>
<td>(2,182)</td>
</tr>
<tr>
<td>Cancer Services Admin</td>
<td>30,000</td>
<td>(386,270)</td>
<td>(8,926)</td>
</tr>
<tr>
<td>SUB TOTAL</td>
<td>13,696,286</td>
<td>(4,283,408)</td>
<td>(5,079,378)</td>
</tr>
<tr>
<td>Cancer/Oncology/Haematology Management</td>
<td>103,588</td>
<td>(175,310)</td>
<td>(39,721)</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>21,994,075</td>
<td>(6,025,936)</td>
<td>(10,004,760)</td>
</tr>
</tbody>
</table>

Table 3: Oncology and Haematology Services Financial Position for 2010/2011
1.4 Business Strategies


This document details the objectives from the NHS Cancer Reform Strategy (see below) and details the position at September 2008, the actions required to meet the objectives, identifies a lead person and the deadlines which must be met. The complete action plan is attached as Appendix A. With particular relevance to this business case is the section regarding local planning for chemotherapy. The objectives are:

<table>
<thead>
<tr>
<th>Objective</th>
<th>Status at September</th>
</tr>
</thead>
<tbody>
<tr>
<td>All chemotherapy service providers to collect and return an agreed dataset on all patients receiving chemotherapy</td>
<td>Awaiting further guidance so work unable to comments (B)</td>
</tr>
<tr>
<td>The introduction of HRG4 for chemotherapy payment will be greatly facilitated by e-prescribing and Trusts that have not already done so would be wise to invest in these. PCTs should incentivise this through commissioning contracts and monitoring</td>
<td>Partially in place (A)</td>
</tr>
<tr>
<td>PCTs will expect providers to demonstrate that they have planned for the safe introduction of new drugs in a thorough and cost-effective way. Use of the C-Port tool will enable Trusts to do this</td>
<td>Not in place (R)</td>
</tr>
<tr>
<td>PCTs working with each other in their cancer networks will want to undertake a review of the safety of their chemotherapy services. They should set out in clear specifications which treatments should be provided in what locations and to what safety specifications, taking account of forthcoming advice from the National Chemotherapy Advisory Group</td>
<td>Not in place (R)</td>
</tr>
</tbody>
</table>

Table 4: Extract from Shropshire Cancer Reform Strategy Action Plan

Future Configuration of Hospital Services

The Trust is currently developing an Outline Business Case (OBC) for investment to support the implementation of a programme to deliver the future configuration of Hospital Services in Shropshire, Telford and Wrekin by 2014.

This focuses on the capital investment required to provide accommodation to support the future configuration of services on both sites. In developing the OBC the Trust has reviewed the different options for where services could be located on each site with particular consideration to delivering a clinically safe model of care i.e. maintaining key clinical adjacencies, minimising disruption to existing services, supporting longer term strategic service developments and providing value for money.

The OBC builds on the Strategic Outline Case (SOC) which was approved by the Trust Board in December 2010; this set out the various service proposals for reconfiguring services across both sites and formed the basis of a proposal for public consultation.

The assurance and consultation has influenced the development of proposals for surgery (including head and neck), maternity, gynaecology, neonatology, children’s services, urology, and stroke services.

This full business case for cancer services has been considered within the context of the reconfiguration and has neither an impact on or is impacted by this programme.

1.5 National Policies


The Cancer Reform Strategy commits the National Cancer Director to deliver annual reports on progress to Ministers. This is the second such report which concludes that considerable progress has been made in national implementation over the past year. There has been a further fall in cancer mortality, with the latest data (the average for 2006–08) showing that, among people under 75, cancer mortality has fallen by 19.3% since 1995–97.
Analyses have shown that one- and five-year survival rates for breast, colon, rectum and prostate cancer have improved considerably since the publication of the Cancer Plan. For breast cancer, five-year survival rose from 80.6% in 2000 to a predicted level of 86.0% in women diagnosed in 2007. The equivalent figures for colon cancer in men are 47.6% rising to 53.4% and in women 47.6% rising to 52.7%.

However the report also identifies some areas of significant concerns:

- Progress at a local level on procurement of digital mammography equipment is slow;
- From April 2009, all radiotherapy services should have been collecting and reporting a standardised dataset. In practice, only a minority of radiotherapy services are doing so on a regular basis;
- Progress towards the December 2009 target that all referrals of patients with breast symptoms should be seen within two weeks is also slow;
- Recent studies have shown that cancer mortality in this country is falling much more slowly in older people (over 75 years) than in younger people. The fall in cancer mortality among older people in this country appears to be slower than in other developed countries. More detailed work to understand this is now under way, and this could be an important focus for attention at both national and local level.

This report also provides an opportunity to identify major priorities for the coming year:

- Raising awareness and promoting early diagnosis are essential to bring cancer survival rates up to the level of the best in Europe. One-year survival rates reflect late diagnosis and are poor across the country;
- Improving access to diagnostic tests for GPs is essential to the drive for earlier diagnosis of cancer;
- Benchmarking against comparator countries. Work on comparisons of the use of drugs in different countries is now well advanced. This is being done in partnership with the pharmaceutical industry. The NCAT has also recently initiated a major programme to understand international variations in cancer survival rates;
- Given the financial downturn, it is imperative that NHS resources are used to best effect. Within cancer services we will continue to reduce unnecessary inpatient bed usage and to shift care to the community.

**Chemotherapy in England: Ensuring quality and safety: August 2009**

Use of chemotherapy and other systemic agents for cancer is rapidly changing – treatment is improving steadily, sometimes dramatically; the rate of introduction of new drugs is accelerating; the number of patients benefiting from such treatments is increasing quickly; patients are increasingly being treated closer to home.

The aim of this report is to bring about a step change in the quality and safety of chemotherapy services for adult patients with either solid cancers or haematological malignancies. The report sets out a framework for planning, implementing and monitoring services based on a care pathway model and the proposed actions that need to be taken by commissioners and providers to ensure high quality care.

The report highlights improvements to three key areas.

- The provision of elective chemotherapy services, based around a care pathway approach;
- The provision of emergency care not only for cancer patients who develop complications following chemotherapy, but also for patients admitted suffering from the consequences of their cancer. It recommends that all hospitals with an Accident and Emergency (A&E) department establish an “acute oncology service” (AOS), bringing together relevant staff from A&E, general medicine, haematology and clinical/medical oncology, oncology nursing and oncology pharmacy;
- The leadership, information systems, governance, monitoring, and commissioning of chemotherapy services.

The full report can be seen at Appendix B.
NHS Cancer Reform Strategy: December 2007

The Cancer Reform Strategy builds on the progress made since the publication of the NHS Cancer Plan in 2000 and sets a clear direction for cancer services for the next five years. It shows how by 2012 our cancer services can and should become among the best in the world.

There has been considerable progress made on cancer over the past decade, however, significant challenges and opportunities remain. The Cancer Reform Strategy sets out a programme of action across ten areas: six areas of action to improve cancer outcomes and four areas of action to ensure delivery:

- Preventing cancer;
- Diagnosing cancer earlier;
- Ensuring better treatment;
- Living with and beyond cancer;
- Reducing cancer inequalities;
- Delivering care in the appropriate setting.

The drivers for delivering this strategy are:

- Using information to improve quality and choice;
- Stronger commissioning;
- Funding world class cancer care;
- Building for the future.

The actions within the strategy are intended to ensure that every person has access to world class NHS services at every point of the cancer pathway. The strategy makes the following pledges to patients:

- More will be done to help reduce the risk of developing cancer;
- There will be an increased likelihood of cancer being detected earlier;
- There will be access to high quality treatment at every stage of the cancer journey;
- Whether living with or beyond your cancer, high quality information and support, tailored to personal needs will be available;
- The NHS will work to give equitable access to the best possible cancer experience and outcomes;
- Care will be delivered in the most clinically appropriate and convenient setting;
- Access to information will be available about the performance of cancer services, enabling informed choices which reflecting personal priorities;
- PCTs will be supported in ensuring that the best possible cancer services are available;
- NHS cancer services will continue to be properly funded;
- The NHS will strive to improve the quality of cancer services available.

Applying High Impact Changes to Cancer Care: Excellence in Cancer Care. Produced by the Cancer Services Collaborative Improvement Partnership, February 2005.

“Cancer High Impact Changes” sets out a number of practical steps that can be taken to reduce cancer waiting times and improve patients’ experience of care.

The top high level changes for cancer services are focused on four key stages – the patient pathway:

- Referral;
- Diagnosis;
- Treatment Planning;
- Follow up.
At Referral the following processes can reduce waits:

- Having demand management systems in place;
- Referral protocols for all tumour areas being agreed between primary and secondary care;
- Streamlining the referral route – one route, single queue, one point of contact;
- Pooling referrals;
- Defined patient pathways;
- Robust booking and scheduling systems.

To reduce waiting times through the diagnostic phase the following should be considered:

- Triaging patient “straight to test” prior to the first outpatient visit;
- Matching capacity to demand for diagnostic tests;
- Combining tests and visits (one or two stops);
- Agreed protocols for diagnosis and staging;
- Extended roles for nurses and radiographers (e.g. for endoscopy, TRUS biopsy and radiology);
- Results communication systems;
- Proactive pathway management – using trackers and navigators.

Effective multi-disciplinary team working is critical for treatment planning. All cancer patients should be discussed. Effective coordination of MDT meetings helps to ensure that:

- All relevant information is available;
- Decisions are recorded and communicated to all relevant parties;
- Waiting times are monitored proactively;
- Further steps in the pathway are planned, booked and coordinated.

Consultant-led follow up can be reduced, thereby releasing capacity for other essential tasks. Effective strategies include:

- Gaining clinical and managerial buy in to redesign the service;
- New/extended roles – e.g. nurse-led follow up;
- Releasing patients from routine follow, but patients empowered to contact the service if needed;
- Implementations of agreed protocols.

**NHS Plan: 2000 and Delivery the Plan: 2002**

The NHS Plan set targets for cancer services and promised improvement on cancer prevention with more cancer screening programmes; an end to the postcode lottery with the introduction of the National Institute for Clinical Excellence (NICE) to ensure access to cost effective drugs is no longer dependent upon where you live; more research into cancer prevention and treatment; and improved access to cancer services, including improving cancer services in the community and faster access to treatments.
NHS Cancer Plan: September 2000

The Cancer Plan sets out how the improvements promised in the NHS plan are to be introduced. The four main aims of the Cancer Plan are:

- To save more lives;
- To ensure people with cancer get the right professional support and care as well as the best treatments;
- To tackle the inequalities in health that mean unskilled workers are twice as likely to die from cancer as professionals;
- To build for the future through investment in the cancer workforce, through strong research and through preparation for the genetics revolution, so that the NHS never falls behind in cancer care again.

The Cancer Plan sets out actions and milestones to improve cancer services, the 3 new commitments detailed are:

- Targets on smoking cessation;
- New goals and targets to reduce waiting times for diagnosis and treatment;
- Extra investment in hospices and specialist palliative care.

The Cancer Plan also recognises that service re-design will be essential to meet the new targets and commitments and to ensure sustained improvement in cancer services.

1.6 National Cancer Data

Incidence

One in three people develop cancer during their lives. The four most common cancers – breast, lung, colorectal and prostate – accounted for more than half of the 245,300 new cases of malignant cancer (excluding non-melanoma skin cancer) registered in England in 2007. Of the total number of new cases, 123,100 were in males and 122,200 in females. Breast cancer accounted for 31 per cent of cases among women and prostate cancer for 25 per cent among men.

Cancer is predominantly a disease of older people – only 0.5 per cent of cases registered in 2007 were in children (aged under 15) and 25 per cent were in people aged under 60.

Between 1971 and 2007, the age-standardised incidence of cancer increased by around 21 per cent in males and 45 per cent in females.

![Incidence of the major cancers: by sex, England, 2007. (Taken from the UK Government National Statistics Website)](image)

*Figure 1: Incidence of the major cancers: by sex, England, 2007. (Taken from the UK Government National Statistics Website)*
Mortality
Over one in four people die from cancer. Cancer accounted for 30 per cent of all deaths in males and 25 per cent in females.

The four most common cancers accounted for nearly half of the 127,800 deaths from cancer (including non-melanoma skin cancer) in England in 2007. Of these, 66,500 of the total were in males and 61,200 in females.

![Age-standardised mortality, all cancers, by sex, Great Britain, 1971-2006](image)

Figure 2: Age-standardised mortality, all cancers, by sex, Great Britain, 1971-2006 (Cancer Research UK)

Survival
Survival varies by type of cancer and, for each cancer, by a number of factors including sex, age and socio-economic status. Five-year relative survival is very low (in the range 3–16 per cent) for cancers of the pancreas, lung, oesophagus, stomach and brain for patients diagnosed in England in 2001–06, compared with ovarian cancer (39 per cent), cancers of the bladder, colon and cervix (47–64 per cent), and cancers of the prostate and breast (77–82 per cent).

For the majority of cancers, a higher proportion of women than men survived for at least five years after diagnosis. Among adults, the younger the age at diagnosis, the higher the survival for almost every cancer. Five-year survival rates for patients diagnosed in England in 2001–06 improved slightly or stayed stable for 16 of the 21 most common cancers compared to the period 2000–04.

1.7 Local Policies

Review of Implementing Outcome Guidance in Four Cancer Sites in the Greater Midlands Cancer Network
The Greater Midlands Cancer Network has commissioned a review of the following four cancer sites:

- Gynaecology;
- Urology;
- Upper Gastrointestinal;
- Head and Neck.

The review is taking place in the context of the improving outcomes guidance and consisted of several site visits and discussions with clinicians and patient groups across the Network.
The recent peer review for head and neck services highlighted difficulties around patient numbers, non-compliance of IOG and concerns around the sustainability of these services. The GMCN proposed a reconfiguration of services that includes radical surgery ceasing at SaTH. Outreach services would need to be developed for diagnostic oncology and palliative care, with radical surgery being done in Wolverhampton. Diagnostics, staging, chemo-radiotherapy and palliative care could and should remain local. Whilst the Trust accepts the issue with patient numbers and IOG compliance, it believes it is providing high quality local services to its patients. The Trust would therefore prefer to progress IOG compliance through an opportunity for a future maxillofacial surgical joint appointment with Wolverhampton as a post became vacant. This would allow a local service to remain clinically viable and be further developed. There are also opportunities to develop a local enhanced ENT service should radical surgery move to one of two centres. For example the development of a rapid access one-stop neck lump service with access to ultrasound and fine needle aspiration diagnostics. Diagnostics, staging, chemo-radiotherapy and palliative services should remain all local services for all H&N cancers. There will be a need to ensure continuity of care through enhanced MDT, well planned handovers in complex care pathways and additional CNS support will be key to this as will the reviews recommendations to develop a CNS forum across the GMCN.


The following is a summary of the Trust’s response to the Chemotherapy in England: Ensuring quality and safety, the full report can be seen at Appendix C:

In August 2009, the National Chemotherapy Advisory Group (NCAG) issued a final report outlining recommendations for improvements in the quality and safety of chemotherapy services for adult patients with either solid cancers or haematological malignancies. Recommendations followed the outcome of a NCEPOD enquiry into deaths within 30 days of systemic chemotherapy (2008).

The focus of the NCAG report is entirely on safety and quality. There are 20 key recommendations around the following three key areas:

Provision of emergency care for cancer patients recommending all hospitals with an A&E department establishes an “acute” oncology service.

A care pathway approach to provision of elective chemotherapy services.

Leadership, information systems, governance, monitoring systems and commissioning of chemotherapy services.

The greatest challenge will be establishing an acute oncology service. The SHA has suggested 2011 implementation date for development of acute oncology services.

Many of the other recommendations are based around processes and systems, most of which are achievable with process redesign and improved information systems.

Implementation of the recommendations will be monitored nationally through revised peer review measures, currently in development.

The National Cancer Patient Experience Survey

Patients have rated the Trust’s cancer services as average or good in 54 out of 59 areas (over 91%) relating to their experience, according to a recent survey.

The results of The National Cancer Patient Experience Survey also show that the Trust is in the top 20% in the country for 16 areas.

The survey identified five areas where improvements were needed – making sure that patients are seen as soon as necessary, that they feel they are given a choice of different types of treatment, that there are always enough nurses on duty, making sure that staff tell patients they can get free prescriptions and that patients are always given enough privacy when discussing their condition or treatment.
Survival Data

The following survival data were extracted from the WMCIU Cancer Registration database 2011. Data are provided for PCTs that fall wholly or partially within the Greater Midlands cancer Network. All rates provided are for persons.

Three-year and five-year survival, reports the percentage of patients who are still alive, 3 and 5-years respectively, after their diagnosis date compared to the percentage of the general population (matched by age and sex) who would be expected to survive this period. The 3-year survival statistics are calculated from patients diagnosed with cancer between 2005-2007 and 5-year survival statistics are calculated from patients diagnosed 2003-2005. The cases are followed up until December 31st 2010.

95% upper confidence intervals (UCI) and lower confidence intervals (LCI) are included. The estimated survival rate given will vary from the true underlying survival rate due to random variation of the observed cases. The probability that the underlying survival rate is within the 95% confidence interval is 95%. If confidence intervals overlap then the survival rates cannot be said to be significantly different.

Data are provided for cancer-site groupings bowel, breast, head and neck and lung.

### Three-year relative-survival, diagnosed 2005-2007, (%) by geographical area and cancer-site grouping, persons

| Geographical area         | Three-year relative-survival |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | Bowel                        | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI |
|                           | Relative survival (%)        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shropshire County PCT     | 63.1                         | 58.5 | 50.8 | 67.7 | 70.3 | 91.2 | 88.1 | 63.8 | 70.6 | 15.7 | 11.5 | 15.1 | 61.3 | 59.6 | 63.0 |
| Telford & Wrekin PCT      | 59.9                         | 49.6 | 53.7 | 63.7 | 63.3 | 92.1 | 86.7 | 96.3 | 63.2 | 63.2 | 49.9 | 74.3 | 10.3 | 6.3 | 14.7 | 56.6 | 54.0 | 59.0 |
| Wolverhampton City PCT    | 59.6                         | 53.9 | 45.0 | 64.4 | 60.5 | 68.5 | 61.3 | 59.5 | 70.6 | 11.9 | 9.7 | 15.8 | 57.0 | 54.9 | 59.0 |
| Dudley PCT                | 59.5                         | 54.7 | 64.0 | 68.9 | 85.5 | 91.8 | 67.4 | 57.8 | 75.7 | 8.7 | 6.1 | 11.9 | 59.6 | 57.9 | 61.3 |
| North Staffordshire PCT   | 57.5                         | 51.4 | 63.4 | 92.4 | 88.7 | 95.4 | 64.4 | 53.6 | 73.6 | 11.3 | 7.7 | 15.7 | 58.8 | 56.7 | 60.9 |
| Stoke on Trent PCT        | 54.4                         | 49.0 | 59.6 | 63.9 | 79.6 | 87.5 | 67.7 | 58.3 | 75.6 | 12.5 | 8.5 | 15.8 | 51.9 | 50.0 | 53.6 |
| South Staffordshire PCT   | 59.7                         | 55.3 | 62.0 | 90.6 | 85.5 | 92.4 | 73.2 | 66.6 | 79.0 | 11.6 | 9.3 | 14.0 | 62.0 | 60.8 | 63.2 |
| Worcestershire PCT        | 60.7                         | 57.2 | 64.2 | 91.9 | 89.8 | 93.9 | 66.7 | 59.7 | 73.1 | 11.1 | 8.8 | 13.6 | 63.2 | 62.0 | 64.5 |
| Greater Midlands CN       | 59.3                         | 57.4 | 61.2 | 93.3 | 88.1 | 90.5 | 67.3 | 63.8 | 70.6 | 11.3 | 10.1 | 12.5 | 59.0 | 59.3 | 59.7 |
| West Midlands             | 56.3                         | 57.1 | 59.5 | 99.4 | 88.7 | 90.2 | 68.1 | 66.0 | 70.1 | 11.5 | 10.8 | 12.3 | 59.4 | 59.0 | 59.8 |

### Five-year relative-survival, diagnosed 2003-2007, (%) by geographical area and cancer-site grouping.persons

| Geographical area         | Five-year relative-survival |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                           | Bowel                        | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI | LCI | UCI |
|                           | Relative survival (%)        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shropshire County PCT     | 55.7                         | 50.8 | 60.5 | 96.2 | 82.3 | 88.7 | 61.3 | 50.7 | 70.7 | 6.9 | 4.5 | 10.0 | 55.5 | 53.7 | 57.4 |
| Telford & Wrekin PCT      | 59.5                         | 48.6 | 54.0 | 60.6 | 79.9 | 90.4 | 59.0 | 43.5 | 72.6 | 8.0 | 4.8 | 12.3 | 51.3 | 48.6 | 54.0 |
| Wolverhampton City PCT    | 47.8                         | 41.8 | 53.8 | 78.6 | 73.6 | 83.1 | 63.7 | 51.8 | 74.5 | 6.4 | 4.0 | 9.6 | 50.1 | 47.5 | 52.2 |
| Dudley PCT                | 53.3                         | 48.4 | 58.1 | 92.8 | 78.9 | 86.3 | 56.9 | 46.0 | 85.4 | 7.9 | 5.5 | 11.0 | 53.1 | 51.3 | 54.9 |
| North Staffordshire PCT   | 50.3                         | 44.1 | 56.5 | 92.5 | 77.6 | 86.6 | 56.4 | 46.9 | 88.6 | 7.0 | 4.3 | 10.6 | 48.7 | 46.5 | 50.6 |
| Stoke on Trent PCT        | 40.2                         | 34.9 | 45.4 | 77.4 | 72.7 | 81.7 | 59.5 | 48.4 | 69.8 | 7.5 | 5.2 | 10.5 | 43.0 | 41.1 | 44.9 |
| South Staffordshire PCT   | 51.6                         | 47.9 | 55.2 | 94.5 | 81.9 | 86.8 | 64.4 | 57.2 | 70.9 | 6.6 | 4.9 | 9.6 | 55.3 | 54.0 | 56.6 |
| Worcestershire PCT        | 51.0                         | 47.2 | 54.8 | 94.3 | 81.6 | 86.8 | 68.0 | 61.4 | 75.8 | 6.8 | 5.0 | 9.9 | 56.6 | 55.3 | 56.0 |
| Greater Midlands CN       | 50.8                         | 48.8 | 52.8 | 92.8 | 81.2 | 84.2 | 61.1 | 57.0 | 64.9 | 7.2 | 5.2 | 10.3 | 51.4 | 50.7 | 52.5 |
| West Midlands             | 51.1                         | 49.8 | 52.3 | 93.5 | 82.6 | 84.4 | 62.2 | 59.8 | 64.4 | 7.1 | 5.6 | 8.7 | 53.0 | 52.6 | 53.5 |
Part B: The Case for Change

1.8 Investment Objectives

The over-arching 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.”

The investment objectives for this project are as follows:

- **Investment Objective 1: Maximising access to services**
  - Access to travel infrastructure (rail, bus, cycle ways, etc.);
  - Travelling time and ease of travel by public and private transport for both patients and staff;
  - Availability of car parking;
  - Create a single entry point to cancer services with a clear identity.

- **Investment Objective 2: Improving the clinical quality of services**
  - Providing the best opportunity to enhance the quality of cancer services;
  - Providing improved health outcomes for patients;
  - Facilitating modernisation, improvement and innovation in clinical practice and teaching;
  - Addressing existing clinical problems;
  - Ensuring that those cancer services that need to be close together are on the same site;
  - Meeting or protecting accreditation standards;
  - Maintaining quality and reputation of the clinical trials service;
  - Maintaining and enhancing the reputation of cancer services.

- **Investment Objective 3: Optimising the environmental quality of services**
  - Improving the patient experience, providing improved, high quality facilities which meet the requirements of privacy and dignity;
  - Improving functional suitability;
  - Meeting patient and staff expectations for conditions conducive to effective working and clinical care (noise, ambience, specific environmental conditions for specific functions, etc.);
  - Providing buildings of architectural merit in line with Government Policies;
  - Meeting statutory standards (including fire, hygiene, health and safety);
  - Meeting consumerism standards of accommodation (for example in relation to number of single rooms, meeting space standards, etc.);
  - Providing social and cultural facilities and environments for staff;
  - Minimising the environmental impact of the solution (including energy, water and waste efficient solutions).
• Investment Objective 4: Developing existing services and/or provision of new services
  o Ensuring sufficient capacity to meet future demand;
  o Equity of access for the population served;
  o Reducing waiting times;
  o Developing or providing services required by commissioners of cancer services;
  o Ensuring the widest availability of cancer services locally.
• Investment Objective 5: Improved strategic fit of services
  o Meeting strategic needs of the locality and region for cancer services;
  o Improving the quality of service relationships and departmental links.
• Investment Objective 6: Meeting training, teaching and staff support needs
  o Making it easier to recruit staff;
  o Making it easier to retain staff.
• Investment Objective 7: Making more effective use of resources
  o Integrating and consolidating current cancer services to provide joined up services;
  o Improving productivity;
  o Making better use of human and estate resources;
  o Meeting service needs within available resources.
• Investment Objective 8: Providing Flexibility for the Future
  o Future expansion or retraction opportunities to cope with changes in demand and changes in the way services are delivered;
  o Potential adaption of facilities for alternative uses.
• Investment Objective 9: Practicality and Timeliness of Delivery
  o Practicality of delivery of physical proposals;
  o Practicality of delivery of service proposals;
  o Practicality and timescale of external changes required (for example to transport infrastructure);
  o Facilities to be fully operational by end of 2012;
  o Ensuring services are maintained through construction with minimal disruption;
  o Impact on local community during construction;
  o Impact on other local Projects;
  o Acceptability to staff, patients, their families and the wider community;
  o Planning implications.

1.9 Greater Midlands Cancer Network

The Greater Midlands Cancer Network was formed from the merger of the Black Country Cancer Network and the North West Midlands Cancer Network. The principle objective of the Network is to deliver the National Cancer Plan in the Greater Midlands. Specifically, the Network has a programme of service development for all aspects of cancer prevention, screening/risk-management, diagnosis, treatment, genetics, research, supportive care and specialist palliative care.
1.10 **North West Midlands Area, its population and services**

The North West Midlands area serves a population of approximately 1.3 million. The catchment area encompasses the health economies of South Staffordshire, North Staffordshire and Shropshire, with the exception of parts of East Staffordshire, and also receives patients from Wales. The North West Midlands has two cancer centres: North Staffordshire Royal Infirmary, University Hospital of North Staffordshire NHS Trust and Royal Shrewsbury Hospital, Shrewsbury and Telford Hospitals NHS Trust and 2 cancer units: Staffordshire General Hospital, Mid-Staffordshire General Hospitals NHS Trust and the Robert Jones & Agnes Hunt Orthopaedic & District Hospital NHS Trust.

**Demographic Information**

The North West Midlands area covers a varied geographical area that includes both inner city populations and a large rural population. This covers the areas served by the following Primary Care Trusts:

- North Staffordshire;
- Stoke-on-Trent;
- Shropshire County;
- Telford & Wrekin PCT.
- South Staffordshire;
- North Shropshire.

The following table shows the age profile of each local authority area within the North West Midlands. It shows the variances between areas and also compares them to the national figures for England as a whole. The data is taken from the 2001 Census:

<table>
<thead>
<tr>
<th>Local Authority</th>
<th>Aged 0-15</th>
<th>Aged 16-74</th>
<th>Aged 75+</th>
<th>Percentage of population aged 75+</th>
<th>No people per hectare</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>England</strong></td>
<td>9901581</td>
<td>35532091</td>
<td>3705159</td>
<td>7.54</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>Telford &amp; Wrekin</strong></td>
<td>35304</td>
<td>114225</td>
<td>8796</td>
<td>5.55</td>
<td>5.5</td>
</tr>
<tr>
<td><strong>Newcastle Under Lyme</strong></td>
<td>22718</td>
<td>89812</td>
<td>9500</td>
<td>7.78</td>
<td>5.8</td>
</tr>
<tr>
<td><strong>Cannock Chase</strong></td>
<td>19548</td>
<td>67138</td>
<td>5440</td>
<td>5.90</td>
<td>11.7</td>
</tr>
<tr>
<td><strong>Bridgnorth</strong></td>
<td>9201</td>
<td>39303</td>
<td>3993</td>
<td>7.61</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Stoke On Trent</strong></td>
<td>47989</td>
<td>174247</td>
<td>18400</td>
<td>7.65</td>
<td>25.8</td>
</tr>
<tr>
<td><strong>South Staffordshire</strong></td>
<td>20341</td>
<td>78326</td>
<td>7229</td>
<td>6.83</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Staffordshire Moorlands</strong></td>
<td>17308</td>
<td>69753</td>
<td>7428</td>
<td>7.86</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Staffordshire County</strong></td>
<td>159001</td>
<td>591247</td>
<td>56496</td>
<td>7.00</td>
<td>3.1</td>
</tr>
<tr>
<td><strong>Stafford</strong></td>
<td>22184</td>
<td>88991</td>
<td>9395</td>
<td>7.87</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>South Shropshire</strong></td>
<td>7306</td>
<td>28968</td>
<td>4136</td>
<td>10.23</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Shrewsbury &amp; Atcham</strong></td>
<td>18920</td>
<td>68919</td>
<td>8011</td>
<td>8.36</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>North Shropshire</strong></td>
<td>11053</td>
<td>41268</td>
<td>4787</td>
<td>8.38</td>
<td>0.8</td>
</tr>
</tbody>
</table>

*Table 5: Age analysis of the local authorities within the North West Midlands Cancer Network. (Taken from the UK Government National Statistics Website)*
General Health Indicators of the population

The table below shows the results of the 2001 census with regard to health information for each local authority area within the North West Midlands compared with the national figures for England.

<table>
<thead>
<tr>
<th></th>
<th>Limiting Long-Term Illness</th>
<th>General Health “not good”</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>17.9%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Telford &amp; Wrekin</td>
<td>18.0%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Newcastle Under Lyme</td>
<td>20.8%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Cannock Chase</td>
<td>19.9%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Bridgnorth</td>
<td>16.7%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Stoke On Trent</td>
<td>23.9%</td>
<td>12.8%</td>
</tr>
<tr>
<td>South Staffordshire</td>
<td>17.0%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Staffordshire Moorlands</td>
<td>19.9%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Staffordshire County</td>
<td>18.3%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Stafford</td>
<td>17.6%</td>
<td>8.3%</td>
</tr>
<tr>
<td>South Shropshire</td>
<td>19.4%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Shrewsbury &amp; Atcham</td>
<td>17.5%</td>
<td>8.3%</td>
</tr>
<tr>
<td>North Shropshire</td>
<td>18.3%</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

Table 6: Health Indicators – 2001 Census (Taken from the UK Government National Statistics Website)

The population has varying health indicators such as deprivation and smoking rates. The following maps show the nature of the population across the region with regard to deprivation in 2000 and smoking rates in 1995.

DETR Index of Multiple Deprivation 2000 – Average Ward Score by Primary Care Trust (pre re-organisation). Deprivation can be taken as an indication of the health of the population. Generally, the higher the level of deprivation the worse the general health of the population.

Figure 3: DETR Index of Multiple Deprivation 2000 – Average Ward Score by Primary Care Trust (PCT). (Taken from the Multi Agency Internet Geographical Information Service, MAIGIS)
Cancer Incidence Rates

The map below shows the incidence rates by PCT (pre re-organisation) of all cancers for 2002. Rates have been directly standardised for age using the European Standard Population and are expressed as a rate per 100,000 population. To show the variation across the North West Midlands region, rates have been divided into quintiles and shaded accordingly.

Figure 5: North West Midlands Cancer Incidence Rates 2002
Cancer Mortality Rates
The map below shows the cancer mortality rates by PCT (pre re-organisation) for 2002. Rates have been directly standardised for age using the European Standard Population and are expressed as a rate per 100,000 population. To show the variation across the West Midlands region, rates have been divided into quintiles and shaded accordingly.

Figure 6: North West Midlands Cancer Mortality Rates: 2002

Current Cancer Services
The following diagram shows the organisations that provide cancer care in the North West Midlands.

Figure 7: Organisations Providing Cancer Care in the West Midlands
1.11 North Powys Area, its population and services

Powys has a population of approximately 132,000.

**Demographic Information**

Powys is a large mainly sparsely populated rural area, in 2001 the population was approximately 126,000.

The following table shows the age profile Powys. The data is taken from the 2001 Census:

<table>
<thead>
<tr>
<th>Aged 0-15</th>
<th>Aged 16-74</th>
<th>Aged 75+</th>
<th>Percentage of population aged 75+</th>
<th>No of people per hectare</th>
</tr>
</thead>
<tbody>
<tr>
<td>22,975</td>
<td>91,226</td>
<td>12,146</td>
<td>9.61%</td>
<td>0.25</td>
</tr>
</tbody>
</table>

*Table 7: Age analysis of Powys. (Taken from the Wales Assembly Government National Statistics Website)*

**General Health Indicators of the population**

The table below shows the results of the 2001 census with regard to health information for Powys:

<table>
<thead>
<tr>
<th>Limiting Long-Term Illness</th>
<th>General Health “not good”</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.43%</td>
<td>10.10%</td>
</tr>
</tbody>
</table>

*Table 8: Health Indicators – 2001 Census (Taken from the UK Government National Statistics Website)*

The following map shows the nature of the population across the region with regard to deprivation in 2001.

Welsh Index of Multiple Deprivation 2001. Deprivation can be taken as an indication of the health of the population. Generally, the higher the level of deprivation the worse the general health of the population.

*Figure 8: Welsh Index of Multiple Deprivation 2001. (Taken from the National Public Health Service for Wales publication, Health Needs Assessment 2006)*
**Cancer Incidence Rates**

The map below shows the incidence rates of all cancers for 2002.

![Cancer Incidence Rates Map](image)

Figure 9: Powys Cancer Incidence Rates 2002

**Cancer Mortality Rates**

The map below shows the European age standardised mortality rates for all malignancies excluding skin 2002-2004:

![Cancer Mortality Rates Map](image)

Figure 10: Powys Cancer Mortality Rates: 2002 – 2004
**Current Cancer Services**

The following diagram shows that there are no major acute hospital within Powys. There are also very limited cancer services and for North Powys the nearest cancer centre is that at Royal Shrewsbury Hospital:

![Map of Wales showing cancer services](image)

**Figure 11: Major Acute Hospital in Wales**

Local Hospitals and Cancer Services North Wales

**District and General Hospitals and Community Hospitals in North Wales**

- Flintshire and Wrexham
- Conwy & Denbighshire
- Anglesey and Gwynedd
- The Countess of Chester

**Cancer Treatment Centres in North Wales**

- Alaw Unit - Ysbyty Gwynedd
- North Wales Cancer Treatment Centre - Ysbyty Glan Clwyd
- Shooting Star Unit - Ysbyty Maelor - Wrexham
1.12 Description of Current Services at The Royal Shrewsbury Hospital

Oncology Inpatients
Ward 21 at RSH is a 16 bedded ward specialising in the care of patients with cancer under the care of the Consultant Oncologists. The ward caters for patients who require inpatient stay for treatment regimes/therapies, symptom control, specialised nursing and medical intervention as well as end of life care.

The majority of the inpatient care is delivered during Monday – Friday, when patients who require complex chemotherapy regimes are admitted. Inpatient chemotherapy is administered for patients who require systemic chemotherapy over 24, 48 hours or 4 day regimens.

However, patients who require nursing care and in particular end of life care are accommodated over a full 24 hour, 7 day a week basis.

Chemotherapy Day Care
This facility is housed on the first floor level at the Royal Shrewsbury Hospital, adjacent to Ward 21 (Cancer/Oncology inpatient ward).

The Unit (CDC) was opened in August 2000 and provides care for patients who are able to attend as a day case for treatment within a specialist area which is separate from the inpatient ward. CDC treats patients from Shropshire, Telford & Wrekin and Mid-Wales and caters for approximately 150 patients per week.

Patients attending the CDC receive the following treatment:

- Full blood counts of all patients who receive Chemotherapy at 7 and 15 days, to ensure they are not immuno-suppressed;
- Blood transfusions;
- Supportive Therapies i.e. Herceptin Therapies, concurrent Chemo-radiotherapy treatments, line flushes, and blood samples from lines (i.e. Hickman lines), insertion of peripherally inserted central catheters;
- Triage/telephone advice to cancer patients receiving treatment.

The CDC has 16 treatment chairs and 2 treatment/preparation rooms (for preparing chemotherapy), with support accommodation, including a reception/booking area for patients attending to be ‘booked in’ and notes storage and a kitchen area for patient refreshments.

The Chemotherapy Day Care area accommodates circa 7,000 attendances per annum, including chemotherapy for patients with head and neck cancers.

Radiotherapy
The radiotherapy unit at RSH was opened in 1982 and provides treatment using machines that produce high energy X-rays for patients who require radical and palliative radiotherapy from Telford, Shropshire and Mid Wales.

The Radiotherapy department has 1,260 patients with circa 16,000 attendances per annum.

Medical physics
Provision of specialist scientific, technical and associated management expertise, covering all aspects of work entailing the use of ionising radiation for therapeutic purposes. For advice and first line support of associated software and hardware, and for Treatment Planning and Mould Room provision at the Royal Shrewsbury Hospital.
Oncology Outpatients
The five Consultant Oncologists provide new and follow-up outpatient clinics, including head and neck cancers, in the outpatient area within the Radiotherapy department at RSH, opened in 1982. There are 6 consulting rooms within the department with a large reception and waiting area.

Plans are in for all Consultant clinics to be supported by a registrar and a specialist chemotherapy nurse, therefore using 3 consulting rooms per consultant clinic.

Consultant clinics utilise all 6 rooms for 10 sessions per week. There is a further consulting room in the clinic area which is used by the clinical trials department. The oncology outpatients area accommodates circa 8,000 attendances per annum.

Clinical Trials
The Clinical Trials Team support recruitment and management of patients into a wide variety of cancer trials across the major disease sites. As part of the Greater Midlands National Cancer Research Network we achieved the Governments target a year early for 10% of patients diagnosed with cancer to enter trials. They carry a broad portfolio of radiotherapy, chemotherapy, hormone and other cancer drug trials plus epidemiology, genetic and surveillance studies. The Trials Team attend multi-disciplinary team meetings and work closely with referring teams to ensure potential patients are identified and work with the radiotherapy and chemotherapy unit to meet protocol requirements. Dedicated trials follow up clinics facilitate timely, accurate, on-going data collection.

The Clinical Trials department have recently amalgamated with the Trust Research & Development Team. The cancer clinical trials department is currently located within the radiotherapy department at RSH and occupies 3 large rooms, with desk space for 15 staff and a large storage area.

Haematology Inpatients
Ward 23H at RSH is a 12 bedded ward specialising in the care of patients with haematological conditions. The ward has 6 side rooms which are used for neutropaenic patients and have ‘positive air pressure’ systems in place. There is also a 6 bedded bay. The ward provides full 24 hour, 7 days a week care.

Haematology Day Care
The Haematology Day Care Unit is currently ‘housed’ within outpatient clinic 9. It has been in its current location since 2001. The Day Unit treated 188 patients during 2009. However, a further 83 patients were seen as ward attenders during 2009. These patients could have been seen in the day unit if space was available.

The Haematology Day Care area treats patients who receive the following:

- Blood transfusions;
- Central Venous Catheter (CVC) insertion (including Hickman lines);
- Other drug regimes via CVC;
- Full blood counts;
- Venesection.

The unit treats patients from Shropshire and Mid-Wales. There is a further unit at The Princess Royal Hospital which caters for Telford and Wrekin patients.

Haematology Outpatients
Haematology outpatients are seen in the main outpatient department (in clinic 9) at RSH. There are two consulting rooms, a small reception and a 10 seat waiting area. The clinic rooms are both used for 6 sessions per week. The haematology outpatients area accommodates circa 5,500 attendances per annum.

Head and Neck Cancer Services
Head and neck oncology patients are seen within the oncology outpatient clinics and are treated within the Chemotherapy Day Care and Radiotherapy Departments. There are 20 inpatient beds within the inpatient head and neck ward of which on average 4 per day are used for cancer or suspected cancer patients. The current activity for head and neck oncology inpatients is 450 bed days per year.
1.13 The Model of Care

The Cancer, Oncology & Haematology SDU provides specialist care and treatment to patients with cancer and those with haematological conditions across Shropshire, Mid-Wales and Telford and Wrekin. Inpatient and daycase chemotherapy and radiotherapy is provided on site at RSH with some daycase chemotherapy also provided at PRH on three days a week. Inpatient haematology care is provided at RSH and daycase haematology is provided across both sites. Oncology and Haematology clinics are provided at both sites.

The Cancer Centre at RSH has two LINACS and a brand new state of the art CT scanner in place.

There are 5 Clinical Consultant Oncologists who provide treatment for all adult solid tumour sites. There is partial Consultant cross cover for one solid tumour site only - breast. The 4 Consultant Haematologists provide treatment for haematological cancer and other haematological conditions.

The service is part of the Greater Midlands Cancer Network (GMCN), working particularly closely with University Hospital of North Staffordshire NHS Trust who provide staffing for the medical physics department as agreed by a Service Level Agreement. There is representation by the Consultant Oncologists and Haematologists at the GMCN Network Site Specific Groups. The Consultant Haematologists and Oncologists are also core members of all the local multidisciplinary team meetings.

The SDU has a high quality clinical trials department which has a very successful recruitment rate to all main cancer trials. This service is extremely important in raising the profile of cancer and haematology services in SaTH and also in terms of attracting medical staff and supporting their development. Revenue from trials is lucrative for the organisation. The SDU has been successful at recruiting high quality staff and delivering a service which meets all national and local guidelines for cancer and haematology. The SDU links into a wide spectrum of specialties across SaTH and provides support and expertise across the organisation.

The Trust Lead Nurse for chemotherapy is a core member of the GMCN network nurses group. The Specialist Palliative Care Clinical Nurse Specialists sit within the SDU providing Specialist Palliative Care to cancer and end of life non cancer long/term conditions across the organisation. The SDM is also responsible for the Trust cancer targets and manages the cancer pathway trackers. The Nurse Manager is the Trust Lead Cancer Nurse. The Clinical Director is the Trust Lead Cancer Clinician. The Trust annual peer review programme is co-ordinated by the SDU.

1.14 Current Service Issues

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.
1.15 **Key Service Requirements**

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, and utilities);
- A modern outpatient and day treatment facility which meet the current national, regional and local policy imperatives;
- Appropriate, statutory compliant accommodation, providing suitable privacy and dignity.

1.15.1 **Activity and 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 tables below:

### Outpatients

<table>
<thead>
<tr>
<th></th>
<th>RSH</th>
<th>PRH</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010/11 New Attendances</td>
<td>2,209</td>
<td>1,134</td>
<td>3,343</td>
</tr>
<tr>
<td>2010/2011 Follow Up Attendances</td>
<td>13,526</td>
<td>3,785</td>
<td>17,311</td>
</tr>
<tr>
<td>2010/2011 Total Attendances</td>
<td>15,735</td>
<td>4,919</td>
<td>20,654</td>
</tr>
</tbody>
</table>

*Table 9: 2010/11 Outpatient Activity*

### Daycase

<table>
<thead>
<tr>
<th></th>
<th>RSH</th>
<th>PRH</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Values</td>
<td>Clinical Haematology</td>
<td>Clinical Oncology</td>
<td>Total</td>
</tr>
<tr>
<td>2010/2011 Episodes</td>
<td>3,103</td>
<td>7,025</td>
<td>10,128</td>
</tr>
</tbody>
</table>

*Table 10: 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 following table shows the current activity (taken from the MEDE) and projected activity across the Trust with regard to Haematology and Oncology Outpatients:

<table>
<thead>
<tr>
<th></th>
<th>RSH</th>
<th>PRH</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline 0809 New Attendances</td>
<td>2,314</td>
<td>1,412</td>
<td>3,726</td>
</tr>
<tr>
<td>Baseline 0809 Follow Up Attendances</td>
<td>11,328</td>
<td>4,331</td>
<td>15,659</td>
</tr>
<tr>
<td>Baseline 0809 Total Attendances</td>
<td>13,642</td>
<td>5,743</td>
<td>19,386</td>
</tr>
<tr>
<td>Demographic Uplift: New Attendances</td>
<td>2,770</td>
<td>1,739</td>
<td>4,509</td>
</tr>
<tr>
<td>Demographic Uplift: Follow Up Attendances</td>
<td>13,513</td>
<td>5,325</td>
<td>18,837</td>
</tr>
<tr>
<td>Demographic Uplift: Total Attendances</td>
<td>16,282</td>
<td>7,064</td>
<td>23,346</td>
</tr>
</tbody>
</table>

*Table 11: Haematology and Oncology Outpatient Activity*
The baseline activity is for 08/09 and has been uplifted as follows:


Taking the projected activity and applying the following throughput assumptions:

- Length of time for room (includes patient contact time and any set up/cleaning time required) = 60 minutes for new patients and 40 minutes for follow up appointments.
- Number of hours per session = 3 hours
- Number of patients per session = 4
- Number of sessions per week = 10
- Number of weeks per year = 48
- Utilisation = 95%

This equates to 2,000 attendances per year per room which would translate into the following capacity requirement:

<table>
<thead>
<tr>
<th></th>
<th>RSH</th>
<th>PRH</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected Clinic Rooms Required</td>
<td>8*</td>
<td>4</td>
<td>12</td>
</tr>
</tbody>
</table>

*6 oncology and 2 haematology

These rooms will also be supported by appropriate interview rooms and treatment facilities.

**Daycase**

The following table shows the current activity (taken from the MEDE) and projected activity across the Trust with regard to Haematology and Oncology Daycase:

<table>
<thead>
<tr>
<th></th>
<th>RSH</th>
<th>PRH</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Values</td>
<td>Clinical Haematology</td>
<td>Clinical Oncology</td>
<td>Total</td>
</tr>
<tr>
<td>Baseline 0809 Episodes</td>
<td>3,321</td>
<td>7,077</td>
<td>10,398</td>
</tr>
<tr>
<td>Uplift for Demography</td>
<td>3,949</td>
<td>8,191</td>
<td>12,139</td>
</tr>
<tr>
<td>Uplift for Epidemiology</td>
<td>3,949</td>
<td>8,228</td>
<td>12,177</td>
</tr>
</tbody>
</table>

*Table 13: Haematology and Oncology Daycase Activity*

The baseline activity is for 08/09 and has been uplifted as follows:


Utilising the daycase turnover rate of 2 patients per chair per day and with the department operational 248 days per year, with no weekend or evening working this activity translates into the following capacity requirements:

<table>
<thead>
<tr>
<th></th>
<th>RSH</th>
<th>PRH</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected Places Required</td>
<td>8</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>
**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:

<table>
<thead>
<tr>
<th></th>
<th>Outpatient Consult/Exam Rooms</th>
<th>Daycase Treatment Places</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haematology</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Oncology</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

*Table 15: Capacity of New Facilities*

**Functional Content**

The facilities must include the following functions:

- Entrance and Reception
  - Reception
  - Waiting Area

- Oncology Department
  - Consult Examination
  - Information Room
  - Interview/ Counselling
  - Chemotherapy Day Treatment
  - Chemotherapy Preparation
  - Support Accommodation
  - Admin Support Accommodation
  - Seminar Room

- Haematology Department
  - Reception & Waiting Area
  - Consulting/ Examination
  - Venepuncture Room
  - Chemotherapy Day Treatment
  - Chemotherapy Preparation
  - Support Accommodation
  - Admin Support Accommodation
1.16 Main Benefits Criteria

This section describes the main outcomes and benefits associated with the implementation of the potential scope in relation to business needs.

Satisfying the potential scope for this investment will deliver the following high level strategic and operational benefits. By investment objectives these are as follows:

<table>
<thead>
<tr>
<th>Investment objectives</th>
<th>Main benefits criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Objective 1: Maximising access to services</td>
<td>Access to travel infrastructure (rail, bus, cycle ways, etc.); Travelling time and ease of travel by public and private transport for both patients and staff; Availability of car parking; Create a single entry point to cancer services with a clear identity.</td>
</tr>
<tr>
<td>Investment Objective 2: Improving the clinical quality of services</td>
<td>Providing the best opportunity to enhance the quality of cancer services; Providing improved health outcomes for patients; Facilitating modernisation, improvement and innovation in clinical practice and teaching; Addressing existing clinical problems; Ensuring that those cancer services that need to be close together are on the same site; Meeting or protecting accreditation standards; Maintaining quality and reputation of the clinical trials service; Maintaining and enhancing the reputation of cancer services.</td>
</tr>
<tr>
<td>Investment Objective 3: Optimising the environmental quality of services</td>
<td>Improving the patient experience, providing improved, high quality facilities which meet the requirements of privacy and dignity; Improving functional suitability; Meeting patient and staff expectations for conditions conducive to effective working and clinical care (noise, ambience, specific environmental conditions for specific functions, etc.); Providing buildings of architectural merit in line with Government Policies; Meeting statutory standards (including fire, hygiene, health and safety); Meeting consumerism standards of accommodation (for example in relation to number of single rooms, meeting space standards, etc.); Providing social and cultural facilities and environments for staff; Minimising the environmental impact of the solution (including energy, water and waste efficient solutions).</td>
</tr>
<tr>
<td>Investment objectives</td>
<td>Main benefits criteria</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Investment Objective 4: Developing existing services and/or provision of new services</td>
<td>Ensuring sufficient capacity to meet future demand; Equity of access for the population served; Reducing waiting times; Developing or providing services required by commissioners of cancer services; Ensuring the widest availability of cancer services locally.</td>
</tr>
<tr>
<td>Investment Objective 5: Improved strategic fit of services</td>
<td>Meeting strategic needs of the locality and region for cancer services; Improving the quality of service relationships and departmental links.</td>
</tr>
<tr>
<td>Investment Objective 6: Meeting training, teaching and staff support needs</td>
<td>Making it easier to recruit staff; Making it easier to retain staff.</td>
</tr>
<tr>
<td>Investment Objective 7: Making more effective use of resources</td>
<td>Integrating and consolidating current cancer services to provide joined up services; Improving productivity; Making better use of human and estate resources; Meeting service needs within available resources.</td>
</tr>
<tr>
<td>Investment Objective 8: Providing Flexibility for the Future</td>
<td>Future expansion or retraction opportunities to cope with changes in demand and changes in the way services are delivered; Potential adaption of facilities for alternative uses.</td>
</tr>
<tr>
<td>Investment Objective 9: Practicality and Timeliness of Delivery</td>
<td>Practicality of delivery of physical proposals; Practicality of delivery of service proposals; Practicality and timescale of external changes required (for example to transport infrastructure); Facilities to be fully operational by end of 2012; Ensuring services are maintained through construction with minimal disruption; Impact on local community during construction; Impact on other local Projects; Acceptability to staff, patients, their families and the wider community; Planning implications.</td>
</tr>
</tbody>
</table>

Table 16: Investment objectives and benefits
1.17 Constraints

The Estate strategy is an important document as it sets out the future strategy for site developments and capital investment for the next 5 to 10 years. The estate represents a key area of resource in terms of quality of patient care, safety and cost efficiency. Plans for capital investment in the estate also directly support the future business and service plans of the Trust.

During 2007 the Trust completed a programme of works relating to the development of an estate strategy, including assessing the current condition of the building stock on both the Royal Shrewsbury and Princess Royal Hospital Sites. This work included discussing with clinicians the services issues they were experiencing and identifying where service delivery issues were being experienced and/or where future developments were likely to lead to pressures on facilities.

The area which could provide a physical constraint regarding the development of the cancer centre relates to the Accident and Emergency department. Several issues were identified and a zone was identified for future development of Emergency Services on the Royal Shrewsbury Hospital site.

The site zone and service issues identified as part of the project are attached as Appendix D.

Whilst recent developments within both the national (financial) economy and the local health economy may have changed the emphasis on future service developments this area still remains as an area identified for emergency service development in the future.

1.18 Dependencies

1.18.1 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 addressed 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.
2.0 The Economic Case

In accordance with the Capital Investment Manual and requirements of HM Treasury’s Green Book (A Guide to Investment Appraisal in the Public Sector), this section of the Business Case documents the wide range of options that have been considered in response to the potential scope identified within the strategic case.

2.1 Critical Success Factors

The key critical success factors (CSFs) for the project were developed and agreed by the clinical and project teams. These CSFs have been used alongside the investment objectives for the project to evaluate the long list of possible options.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Business Need The option meets the agreed investment objectives, provides the Trust with service which meet it's business need and fulfils the service requirements.</td>
</tr>
<tr>
<td>B</td>
<td>Value for Money The option maximises the return on the required investment in terms of economy, efficiency and effectiveness.</td>
</tr>
<tr>
<td>C</td>
<td>Clinical Safety Ensures services are safe for patients, visitors and staff, and delivered in accordance with best practice, minimising risk and ensuring services meet the Trust’s standards, pass external inspections and meet universally accepted norms of safety, including statutory standards for health and safety.</td>
</tr>
<tr>
<td>D</td>
<td>Strategic Fit The option develops services in line with national policy and the strategic aims of the Trust and the local health community and also fits in with any longer term site reconfigurations planned for RSH.</td>
</tr>
<tr>
<td>E</td>
<td>Potential Achievability The option can be delivered by the Trust with the necessary resources and availability of the skills required for successful delivery.</td>
</tr>
<tr>
<td>F</td>
<td>Capacity The option provides the required level of capacity to meet Commissioner expectations and the Trust’s requirements.</td>
</tr>
<tr>
<td>G</td>
<td>Potential Affordability The option is likely to meet the funding constraints (both capital and revenue)</td>
</tr>
</tbody>
</table>

Table 17: Critical Success Factors

2.2 The Long-Listed Options

The long list of options was generated in accordance with best practice contained in the Capital Investment Manual.

The evaluation was undertaken in accordance with how well each option met the investment objectives and the critical success factors.

The long list of options for this investment was generated using the options framework. This generated options within the following key categories of choice:

Scoping options – choices in terms of coverage (the what)

The choices for potential scope are driven by business needs and the strategic objectives at both national and local levels. In practice, these may range from business functionality to geographical, customer and organisational coverage. Key considerations at this stage are ‘what’s in?’ ‘what’s out?’ and service needs.
Service solution options – choices in terms of solution (the how)

The choices for potential solution are driven by new technologies, new services and new approaches and new ways of working, including business process reengineering.

Key considerations range from ‘what ways are there to do it?’ to ‘what processes could we use?’

Service delivery options – choices in terms of delivery (the who)

The choices for service delivery are driven by the availability of service providers. In practice, these will range from within the organisation (in-house), to outsourcing, to use of the public sector as opposed to the private sector, or some combination of each category. The use of some form of public private sector partnership (PPP) is also relevant here.

Implementation options – choices in terms of the delivery timescale

The choices for implementation are driven by the ability of the supply side to produce the required products and services, VFM, affordability and service need. In practice, these will range from the phasing of the solution over time, to the incremental introduction of services.

Funding options – choices in terms of financing and funding

The choices for financing the scheme (public versus private) and funding (central versus local) will be driven by the availability of capital and revenue, potential VFM, and the effectiveness or relevance/appropriateness of funding sources.

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.

2.2.1 Scoping Options

Introduction

In accordance with the Treasury Green Book and Capital Investment Manual, the do minimum has been considered as a benchmark for potential VFM.

An infinite number of options and permutations are possible; however, within the broad scope, the following main options have been considered:

- Option 1.1 – the ‘minimum’ scope – refurbishment of the existing accommodation;
- Option 1.2 – the ‘intermediate’ scope – provide new facilities for haematology daycase and refurbished accommodation for other services;
- Option 1.3 – ‘maximum’ scope – provide a new facility containing haematology and oncology daycase and outpatients and provide improved accommodation for head and neck cancer inpatients.

Option 1.1: Do Minimum

Description

This option would leave the accommodation as it is currently and would only include resolving backlog maintenance and a cosmetic ‘face lift’.

Advantages

The main advantages are:

- Low cost:
Disadvantages
The main disadvantages are that:

- This option does not achieve any of the investment objectives or critical success factors;
- There would be significant disruption to the service, patients and staff whilst works were carried out, which may involve decanting the service;
- Costs and difficulty of finding decant accommodation.

Conclusion
This option would not deliver any objectives of the project. The Trust would be unable to secure the charitable funds required to deliver the scheme if this were the scope.

**Option 1.2: Intermediate Scope**

**Description**
This option involves providing new facilities for haematology and oncology daycases, refurbishing and extending the head and neck inpatients facilities for cancer patients and refurbishing the existing outpatient accommodation for haematology and oncology.

**Advantages**
The main advantages are:

- Lower costs than new build for both daycase and outpatients;
- Improved facilities for some patients and staff.

**Disadvantages**
The main disadvantages are that:

- There would be significant disruption to the head and neck inpatient service and haematology and oncology outpatient services whilst works were carried out within these areas, which may involve decanting the service;
- Achievement of the many of the investment objectives and critical success factors would be compromised;
- Costs and difficulty of finding decant accommodation;
- Question over the deliverability and feasibility of refurbishing the current accommodation to the required standards.

**Conclusion**
This option would only partially deliver the project objectives. The Trust would be unable to secure the charitable funds required to deliver the scheme if this were the scope.

**Option 1.3: Maximum Scope**

**Description**
This option creates a new facility for oncology and haematology daycase and outpatient services and providing appropriate, good quality accommodation for head and neck cancer inpatients within remodelled existing accommodation.

**Advantages**
The main advantages are:

- Less disruption to existing services;
- Provides the required capacity;
- No requirement for decant and therefore potentially quicker and with less disruption;
- Provides facilities which meet current standards.
Disadvantages
The main disadvantages are that:

- Potentially higher costs.

Conclusion
This option would meet the project objectives and deliver the critical success factors.

**Overall Conclusion: Scoping Options**

The table below summarises the assessment of each option against the investment objectives and critical success factors:

<table>
<thead>
<tr>
<th>Reference to:</th>
<th>Option 1.1</th>
<th>Option 1.2</th>
<th>Option 1.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of option</td>
<td>Minimum</td>
<td>Intermediate</td>
<td>Maximum</td>
</tr>
<tr>
<td>Investment objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1: Maximising access to services</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>2: Improving the clinical quality of services</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>3: Optimising the environmental quality of services</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>4: Developing existing services and/or provision of new services</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>5: Improved strategic fit of services</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>6: Meeting training, teaching and staff support needs</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>7: Making more effective use of resources</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>8: Providing Flexibility for the Future</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>9: Practicality and Timeliness of Delivery</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Critical success factors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Business Need</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>B. Value for Money</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>C. Clinical Safety</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>D. Strategic Fit</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>E. Potential Achievability</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>F. Capacity and Capability</td>
<td>x</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>G. Potential Affordability</td>
<td>x</td>
<td>x</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Summary</td>
<td>Discounted</td>
<td>Discounted</td>
<td>Preferred</td>
</tr>
</tbody>
</table>

*Table 18: Summary assessment of scoping options*

The following key applies:

- ✓ ✓ - More than meets the requirement;
- ✓ - Meets the requirement;
- x - Does not meet the requirement.
Option 1.1: Minimum Scope – Marginal Improvements

This option would only deliver marginal improvements to the existing accommodation and would not meet any of the project objectives. Whilst it may suffice in the short term it would meet the long term business need or provide value for money. The Trust would be unable to secure the charitable funds required to deliver the scheme if this were the preferred scope. This option has been discounted.

Option 1.2: Intermediate Scope for Improvements

This option would partially deliver the project objectives, however the Trust would be unable to secure the charitable funds required to deliver the scheme if this were the scope. This option has been discounted.

Option 1.3: Maximum Scope

This option would fully meet the requirements for the services and is the preferred scope.

2.2.2 Service Solution Options

Introduction

This range of options considers potential solutions in relation to the preferred scope.

The range of options that have been considered are:

- Option 2.1: A new build facility at the Princess Royal Hospital (PRH);
- Option 2.2: A new build facility elsewhere in Shrewsbury i.e. not at the Royal Shrewsbury Hospital (RSH);
- Option 2.3: The refurbishment of the Chemotherapy Day Centre (CDC) with a new build extension;
- Option 2.4: A new build facility located between the Radiotherapy Centre and the Ward Block at RSH;
- Option 2.5: Part refurbishment of the Radiotherapy Centre at RSH with a new build extension;
- Option 2.6: A new build facility extending from the Diagnostic and Treatment Centre (DTC) at RSH;
- Option 2.7: Split services with Haematology adjacent to Pathology at RSH and Oncology adjacent to the Radiotherapy Centre at RSH.

Appendix E shows the locations of the options on the Royal Shrewsbury Hospital site.
Option 2.1: A new build facility at the Princess Royal Hospital site (PRH)
This option is to build a new stand alone facility at the Princess Royal Hospital site in Telford.

Advantages
The main advantages are that:
- Centralisation of services, outpatients and day treatment for Oncology and Haematology;
- Provides the required capacity and reflects the agreed model of care;
- No requirement for decant and therefore potentially quicker and with less disruption to existing services;
- Provides facilities which meet current standards and the Trusts key service requirements for the project;
- Provides vacant space for other possible strategic plans at the Royal Shrewsbury Hospital site.

The main disadvantages are that:
- Will not receive funding from charity;
- Potentially higher costs compared to those options with some level of refurbishment;
- Longer timescales for implementation;
- Longer travel distances for patients accessing the service from Shrewsbury and Mid Wales.

Option 2.2: A new build facility elsewhere in Shrewsbury i.e. not at the Royal Shrewsbury Hospital (RSH)
This option is to build a new stand alone facility at an alternative location in the Shrewsbury area and not on the Royal Shrewsbury Hospital Site.

Advantages
The main advantages are that:
- Provides the required capacity and reflects the agreed model of care;
- No requirement for decant and therefore potentially quicker and with less disruption to existing services;
- Provides better quality accommodation which would fully comply to current standards and the Trusts key service requirements for the Project;
- Provides vacant space for other possible strategic plans at the Royal Shrewsbury Hospital site.

The main disadvantages are that:
- Difficulty and additional costs of finding a new suitable site;
- Potentially higher costs compared to those options with some level of refurbishment;
- Lack of patient support facilities;
- Lack of staff support accommodation;
- Longer timescales for implementation.
**Option 2.3: The refurbishment of the Chemotherapy Day Centre (CDC) with a new build extension**

This option is to refurbish the existing accommodation within the Chemotherapy Day Centre at the Royal Shrewsbury Hospital site and build a new extension with links to the hospital for the new facility via CDC.

Advantages

The main advantages are that:

- Provides better quality accommodation which would fully comply to current standards and the Trusts key service requirements for the Project;
- Utilisation of existing CDC accommodation;
- Provides good proximity to the existing Radiotherapy Centre;
- Provides the required capacity and reflects the agreed model of care.

The main disadvantages are that:

- The extension design will need to consider impact and potential disruption to the existing Accident and Emergency, Head and Neck and Radiotherapy accommodation;
- Difficulties in construction within a very constrained site;
- The location may adversely affect the development of Accident and Emergency services at the Royal Shrewsbury Hospital site;
- Uncertainties around Head and Neck services and therefore future use of adjacent facilities;
- Difficulties in maintaining CDC services during construction and / or additional costs for decanting.

**Option 2.4: A new build facility located between the Radiotherapy Centre and the Ward Block at RSH**

This option is to build a new facility to be located adjacent to the existing Radiotherapy Centre and Ward block at the Royal Shrewsbury Hospital site. This option would be linked to the hospital via Radiotherapy.

The main advantages are that:

- Provides better quality accommodation which would fully comply to current standards and the Trusts key service requirements for the Project;
- Provides the required capacity and reflects the agreed model of care;
- Provides vacant space for other possible strategic plans at the Royal Shrewsbury Hospital site;
- Provides good proximity to the existing Radiotherapy Centre;
- No requirement for decant and therefore potentially quicker and with less disruption to existing services.

The main disadvantages are that:

- The design will need to consider impact and potential disruption to the existing ward block and Radiotherapy accommodation;
- Potentially higher costs for the re-routing of the road and access to the entrance of the ward block;
- Potentially higher costs compared to those options with some level of refurbishment.
**Option 2.5: The part refurbishment of the Radiotherapy Centre at RSH with a new build extension**

This option is part refurbishment of the existing Radiotherapy Centre accommodation at the Royal Shrewsbury Hospital with a new build, including creating a significant focal entrance point.

The main advantages are that:

- Provides better quality accommodation which would fully comply to current standards and the Trusts key service requirements for the Project;
- Provides the required capacity and reflects the agreed model of care;
- Potential to improve some areas of the existing Radiotherapy Centre, in particular entrance and waiting areas;
- Provides vacant space for other possible strategic plans at the Royal Shrewsbury Hospital site;
- Potential to create a single entry point for all outpatient / day cancer patients.

The main disadvantages are that:

- The extension design will need to consider impact and potential disruption to the Radiotherapy accommodation;
- Potential construction difficulties or additional costs due to the differing site levels;
- Potentially higher costs for the re-routing of the road and access to the entrance of the ward block;
- Difficulties in maintaining Radiotherapy services during construction and / or additional costs for decanting.

**Option 2.6: A new build facility extending from the Diagnostic and Treatment Centre (DTC) at RSH**

This option is to build a new extension to the diagnostic and treatment centre at the Royal Shrewsbury Hospital site.

The main advantages are that:

- Provides better quality accommodation which would fully comply to current standards and the Trusts key service requirements for the Project;
- Provides the required capacity and reflects the agreed model of care;
- Provides vacant space for other possible strategic plans at the Royal Shrewsbury Hospital site;
- No requirement for decant and therefore potentially quicker and with less disruption to existing services.

The main disadvantages are that:

- The design will need to consider impact and potential disruption to the existing treatment centre accommodation;
- Loss of car parking;
- Sub optimal clinical relationships with other cancer services;
- Potentially higher costs compared to those options with some level of refurbishment.
Option 2.7: Split services with Haematology adjacent to Pathology at RSH and Oncology adjacent to the Radiotherapy Centre at RSH

This option would see Haematology and Oncology services split across the Royal Shrewsbury Hospital site. It is proposed that Haematology would be a new build facility adjacent to the Pathology building and Oncology within a new build facility adjacent to the Radiotherapy Centre.

The main advantages are that:

- Provides better quality accommodation which would fully comply to current standards and the Trusts key service requirements for the Project;
- Provides vacant space for other possible strategic plans at the Royal Shrewsbury Hospital site;
- Haematology services are adjacent to Pathology and Oncology services are adjacent to the existing Radiotherapy Centre;
- Potential to create a single entry point for all outpatient / day cancer patients.

The main disadvantages are that:

- The design will need to consider impact and potential disruption to both the existing Pathology and Radiotherapy accommodation;
- Potentially difficult access for Haematology patients;
- Potentially higher costs for the creating patient access point to Haematology;
- May disrupt or delay planned extension to the Maternity block;
- Difficulties in construction within a very constrained site.

Overall Conclusion: Service Solution Options

The table below summarises the assessment of each option against the investment objectives and critical success factors.

<table>
<thead>
<tr>
<th>Reference to</th>
<th>Option 2.1</th>
<th>Option 2.2</th>
<th>Option 2.3</th>
<th>Option 2.4</th>
<th>Option 2.5</th>
<th>Option 2.6</th>
<th>Option 2.7</th>
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<tr>
<td>Investment Objectives</td>
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<tr>
<td>1: Maximising access to services</td>
<td>x</td>
<td>x</td>
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<td>✓✓</td>
<td>✓</td>
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<td>✓ ✓</td>
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<td>2: Improving the clinical quality of services</td>
<td>x</td>
<td>x</td>
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<td>✓✓</td>
<td>✓</td>
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<td>✓ ✓</td>
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<td>x</td>
<td>x</td>
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<td>✓✓</td>
<td>✓</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>4: Developing existing services and/or provision of new services</td>
<td>x</td>
<td>x</td>
<td>✓✓</td>
<td>✓✓</td>
<td>✓</td>
<td>✓</td>
<td>✓ ✓</td>
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<tr>
<td>5: Improved strategic fit of services</td>
<td>x</td>
<td>x</td>
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<td>✓✓</td>
<td>✓</td>
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<tr>
<td>6: Meeting training, teaching and staff support needs</td>
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<td>7: Making more effective use of resources</td>
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<td>✓✓</td>
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<td>8: Providing Flexibility for the Future</td>
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<td>✓</td>
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<tr>
<td>9: Practicality and Timeliness of Delivery</td>
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<td>Option 2.3</td>
<td>Option 2.4</td>
<td>Option 2.5</td>
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<td>B. Value for Money</td>
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<td>C. Clinical Safety</td>
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<td>✓✓</td>
<td>✓✓</td>
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<tr>
<td>D. Strategic Fit</td>
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<td>x</td>
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<td>✓✓</td>
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</tr>
<tr>
<td>E. Potential Achievability</td>
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<td>✓</td>
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<td>G. Potential Affordability</td>
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<td>Discounted</td>
<td>Possible</td>
<td>Possible</td>
<td>Possible</td>
<td>Discounted</td>
<td>Discounted</td>
</tr>
</tbody>
</table>

Table 19: Summary assessment of service solution options

The following key applies:

✓✓ - More than meets the requirement;
✓ - Meets the requirement;
✗ - Does not meet the requirement.

Option 2.1: A new build facility at the Princess Royal Hospital site (PRH)

This option has been discounted as it does not meet any of the critical success factors.

Option 2.2: A new build facility elsewhere in Shrewsbury i.e. not at the Royal Shrewsbury Hospital (RSH)

This option has been discounted as it does not meet any of the critical success factors.

Option 2.3: The refurbishment of the Chemotherapy Day Centre (CDC) with a new build extension

This option is possible as it fully delivers the investment objectives and critical success factors for the project.

Option 2.4: A new build facility located between the Radiotherapy Centre and the Ward Block at RSH

This option is possible as it fully delivers the critical success factors for the project, but does not meet all of investment objectives.

Option 2.5: The part refurbishment of the Radiotherapy Centre at RSH with a new build extension

This option is possible as it fully delivers the critical success factors for the project, but does not meet all of investment objectives.

Option 2.6: A new build facility extending from the Diagnostic and Treatment Centre (DTC) at RSH

This option has been discounted as it does not meet all the critical success factors.

Option 2.7: Split services with Haematology adjacent to Pathology at RSH and Oncology adjacent to the Radiotherapy Centre at RSH

This option has been discounted as it does not meet all the critical success factors.
2.2.3 Service Delivery Options

Introduction
This range of options considers the options for service delivery in relation to the preferred scope and potential solution.

The ranges of options that would normally have been examined are:

- Option 3.1: In-House
- Option 3.2: Outsource
- Option 3.3: Strategic Partnership.

However given the nature of cancer services and the fact that there are no providers within the locality to whom the services could be outsourced or with whom a strategic partnership could be development, there are no alternatives to in-house delivery.

2.2.4 Implementation Options

Introduction
This range of options considers the choices for implementation in relation to the preferred scope, solution and method of service delivery.

- Option 4.1: Phased Approach;
- Option 4.2: “Big Bang”.

Option 4.1: Phased Approach
Some of the options involve an element of refurbishing existing accommodation, and for these options there may be a requirement for some phasing. However given the small scale of the project it would be impractical and uneconomical to phase the building programme. It would also lead to a greater length of time during which construction would be taking place and the inherent difficulties and additional resources this involves. This option is therefore not the preferred solution but is possible.

Option 4.2: “Big Bang”
Whilst this option may be described as “big bang” in reality this simply means constructing the whole project as one phase. Given the size and nature of this scheme this is the preferred way forward.

2.2.5 Funding Options

Introduction
The normal range of options for funding and financing are as follows:

- Option 5.1: Private Funding
- Option 5.2: Public Funding – by using the Trust’s borrowing capabilities once it becomes a Foundation Trust.

However this project is to be funded by charitable donations largely raised by the Lingen Davies Cancer Relief Fund.

Overall Conclusion: Funding
The capital element of this project will be funded by charitable donations.
### 2.3 The Long List: Inclusions and Exclusions

The long list has appraised a wide range of possible options.

<table>
<thead>
<tr>
<th>Options</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.0 Scope</strong></td>
<td></td>
</tr>
<tr>
<td>1.1 Minimum</td>
<td>Discounted</td>
</tr>
<tr>
<td>1.2 Intermediate</td>
<td>Discounted</td>
</tr>
<tr>
<td>1.3 Maximum</td>
<td>Preferred</td>
</tr>
<tr>
<td><strong>2.0 Service solutions</strong></td>
<td></td>
</tr>
<tr>
<td>Option 2.1: A new build facility at the Princess Royal Hospital site (PRH)</td>
<td>Discounted</td>
</tr>
<tr>
<td>Option 2.2: A new build facility elsewhere in Shrewsbury i.e. not at the Royal Shrewsbury Hospital (RSH)</td>
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<tr>
<td>Option 2.3: The refurbishment of the Chemotherapy Day Centre (CDC) with a new build extension</td>
<td>Possible</td>
</tr>
<tr>
<td>Option 2.4: A new build facility located between the Radiotherapy Centre and the Ward Block at RSH</td>
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<tr>
<td>Option 2.5: The part refurbishment of the Radiotherapy Centre at RSH with a new build extension</td>
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<td>Option 2.6: A new build facility extending from the Diagnostic and Treatment Centre (DTC) at RSH</td>
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</tr>
<tr>
<td>Option 2.7: Split services with Haematology adjacent to Pathology at RSH and Oncology adjacent to the Radiotherapy Centre at RSH</td>
<td>Discounted</td>
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<tr>
<td><strong>3.0 Service delivery</strong></td>
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<tr>
<td>3.1 In-house</td>
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<tr>
<td>3.2 Outsource</td>
<td>Discounted – not a viable option</td>
</tr>
<tr>
<td>3.3 Strategic Partnership</td>
<td>Discounted – not a viable option</td>
</tr>
<tr>
<td><strong>4.0 Implementation</strong></td>
<td></td>
</tr>
<tr>
<td>4.1 Phased Approach</td>
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</tr>
<tr>
<td>4.2 “Big Bang”</td>
<td>Preferred</td>
</tr>
<tr>
<td><strong>5.0 Funding</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Charitable donations</td>
</tr>
</tbody>
</table>

*Table 20: Summary of inclusions, exclusions and possible options*

### 2.4 Short-Listed Options

The short-listed options are:

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 refurbishment of the front of the Radiotherapy Centre at RSH with a new build extension providing oncology outpatients together with an extension at the rear of the Radiotherapy Centre providing accommodation for oncology day treatment at ground floor and haematology outpatients and day treatment at first floor. Thus creating an enhanced entrance which will act as a focal point for patients.

Option 4b: The refurbishment of the front of the Radiotherapy Centre at RSH with a new build extension providing oncology outpatients together with refurbishment of the rear of the Radiotherapy Centre and an extension providing accommodation for oncology day treatment at ground floor and the refurbishment of the existing CDC and extension at first floor for haematology outpatients and day treatment. Again creating an enhanced entrance which will act as a focal point for patients as well as maximising the refurbishment and use of existing facilities.

The table below shows a summary of the options to be taken forward for more detailed appraisal:

<table>
<thead>
<tr>
<th>Scope</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4a and 4b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope</td>
<td>No change to clinical services</td>
<td>Oncology and haematology daycase and outpatient services and providing appropriate, good quality accommodation for head and neck cancer inpatients.</td>
<td>Oncology and haematology daycase and outpatient services and providing appropriate, good quality accommodation for head and neck cancer inpatients.</td>
<td>Oncology and haematology daycase and outpatient services and providing appropriate, good quality accommodation for head and neck cancer inpatients.</td>
</tr>
<tr>
<td>Solution</td>
<td>Resolution of backlog maintenance and redecoration of existing facilities</td>
<td>The refurbishment of the Chemotherapy Day Centre (CDC) with a new build extension</td>
<td>A new build facility located between the Radiotherapy Centre and the Ward Block at RSH</td>
<td>The part refurbishment of the Radiotherapy Centre at RSH with a new build extension</td>
</tr>
<tr>
<td>Delivery</td>
<td>In-house</td>
<td>In-house</td>
<td>In-house</td>
<td>In-house</td>
</tr>
<tr>
<td>Implementation</td>
<td>Phased</td>
<td>Phased</td>
<td>Big Bang</td>
<td>Phased</td>
</tr>
<tr>
<td>Funding</td>
<td>Charitable funding</td>
<td>Charitable funding</td>
<td>Charitable funding</td>
<td>Charitable funding</td>
</tr>
</tbody>
</table>

Table 21: Summary of Short Listed Options

Appendix F shows block diagrams of options 2, 3 4a and 4b.
2.5 Economic Appraisal

2.5.1 Introduction

This section provides a detailed overview of the main costs and benefits associated with each of the selected options.

2.5.2 Net Present Cost Findings

All options have the same revenue implications which are to maintain the current staffing levels and deliver the scheme as a revenue neutral project. The building itself will be future proofed to provide additional capacity as described within section 1.14.1. The table below gives details of the current and hence future costs:

<table>
<thead>
<tr>
<th>Function</th>
<th>Capacity</th>
<th>Current Annual Costs (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haematology</td>
<td>Outpatients</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Consulting Rooms</td>
<td>129,835</td>
</tr>
<tr>
<td></td>
<td>Daycase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 Treatment Chairs</td>
<td>157,885</td>
</tr>
<tr>
<td></td>
<td>1 Treatment Bed</td>
<td></td>
</tr>
<tr>
<td>Haematology</td>
<td>Total</td>
<td>287,720</td>
</tr>
<tr>
<td>Oncology</td>
<td>Outpatients</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 Consulting Rooms</td>
<td>154,570</td>
</tr>
<tr>
<td>Oncology</td>
<td>Daycase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16 Treatment Chairs</td>
<td>437,380</td>
</tr>
<tr>
<td>Oncology</td>
<td>Total</td>
<td>591,950</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>879,669</td>
</tr>
</tbody>
</table>

Table 22: Current Annual Revenue Costs

The following table summarises the key results of the capital appraisals for each option:

<table>
<thead>
<tr>
<th></th>
<th>Option 1 (£)</th>
<th>Option 2 (£)</th>
<th>Option 3 (£)</th>
<th>Option 4a (£)</th>
<th>Option 4b (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Works costs</td>
<td>3,083,561</td>
<td>3,244,102</td>
<td>3,320,293</td>
<td>2,795,652</td>
<td></td>
</tr>
<tr>
<td>Fees</td>
<td>462,534</td>
<td>486,615</td>
<td>498,044</td>
<td>419,348</td>
<td></td>
</tr>
<tr>
<td>Non Works Cost</td>
<td>30,836</td>
<td>32,441</td>
<td>33,203</td>
<td>27,957</td>
<td></td>
</tr>
<tr>
<td>Planning Contingency</td>
<td>214,616</td>
<td>225,790</td>
<td>231,092</td>
<td>194,577</td>
<td></td>
</tr>
<tr>
<td>Optimism Bias</td>
<td>568,732</td>
<td>598,342</td>
<td>612,395</td>
<td>515,629</td>
<td></td>
</tr>
<tr>
<td>Total (exclusive of VAT)</td>
<td>4,360,279</td>
<td>4,587,290</td>
<td>4,695,027</td>
<td>3,953,163</td>
<td></td>
</tr>
<tr>
<td>VAT @ 20%</td>
<td>759,290</td>
<td>798,821</td>
<td>817,582</td>
<td>688,396</td>
<td></td>
</tr>
<tr>
<td>Total (inclusive of VAT) at Reporting Level MIPS 480</td>
<td>260.000*</td>
<td>5,119,569</td>
<td>5,386,111</td>
<td>5,512,609</td>
<td>4,641,559</td>
</tr>
</tbody>
</table>

Table 23: Key Results of the Capital Economic Appraisals

*The costs for option 1 have been estimated based on a cost per square metre of £1,000 to resolve backlog maintenance and to cosmetically redecorate the areas.

2.5.3 Option Appraisal Conclusions

Option 1 has been included as a comparator but it would not be supported by Lingen Davies and is, therefore, not a viable option. Options 2, 3, 4a and 4b include provision for additional capacity which is not included within option 1.

Of the remaining options all will be revenue neutral and Option 4b is the lowest capital cost.
2.6 Qualitative Benefits Appraisal

A workshop was held on the 19th May 2010 involving the clinical teams from all disciplines to evaluate the qualitative benefits associated with each option. A list of attendee's to the workshop can found at Appendix G.

2.6.1 Methodology

The appraisal of the qualitative benefits associated with each option was undertaken by:

- Identifying the benefits criteria relating to each of the investment objectives;
- Weighting the relative importance (in percentages) of each benefit criterion in relation to each investment objective;
- Scoring each of the short-listed options against the benefit criteria on a scale of 1 to 10;
- Deriving a weighted benefits score for each option.

2.6.2 Qualitative Benefits Criteria

The benefits criteria were weighted as follows for each investment objective:

<table>
<thead>
<tr>
<th>Investment Objectives</th>
<th>Main benefits criteria</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Maximising access to services</td>
<td>Access to travel infrastructure (rail, bus, cycle ways, etc.); Travelling time and ease of travel by public and private transport for both patients and staff; Availability of car parking; Create a single entry point to cancer services with a clear identity.</td>
<td>11</td>
</tr>
<tr>
<td>2: Improving the clinical quality of services</td>
<td>Providing the best opportunity to enhance the quality of cancer services; Providing improved health outcomes for patients; Facilitating modernisation, improvement and innovation in clinical practice and teaching; Addressing existing clinical problems; Ensuring that those cancer services that need to be close together are on the same site; Meeting or protecting accreditation standards; Maintaining quality and reputation of the clinical trials service; Maintaining and enhancing the reputation of cancer services.</td>
<td>25</td>
</tr>
<tr>
<td>Investment Objectives</td>
<td>Main benefits criteria</td>
<td>Weight</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>3: Optimising the environmental quality of services</td>
<td>Improving the patient experience, providing improved, high quality facilities which meet the requirements of privacy and dignity; Improving functional suitability; Meeting patient and staff expectations for conditions conducive to effective working and clinical care (noise, ambience, specific environmental conditions for specific functions, etc.); Providing buildings of architectural merit in line with Government Policies; Meeting statutory standards (including fire, hygiene, health and safety); Meeting consumerism standards of accommodation (for example in relation to number of single rooms, meeting space standards, etc.); Providing social and cultural facilities and environments for staff; Minimising the environmental impact of the solution (including energy, water and waste efficient solutions).</td>
<td>15</td>
</tr>
<tr>
<td>4: Developing existing services and/or provision of new services</td>
<td>Ensuring sufficient capacity to meet future demand; Equity of access for the population served; Reducing waiting times; Developing or providing services required by commissioners of cancer services; Ensuring the widest availability of cancer services locally.</td>
<td>12</td>
</tr>
<tr>
<td>5: Improved strategic fit of services</td>
<td>Meeting strategic needs of the locality and region for cancer services; Improving the quality of service relationships and departmental links.</td>
<td>10</td>
</tr>
<tr>
<td>6: Meeting training, teaching and staff support needs</td>
<td>Making it easier to recruit staff; Making it easier to retain staff.</td>
<td>7</td>
</tr>
<tr>
<td>7: Making more effective use of resources</td>
<td>Integrating and consolidating current cancer services to provide joined up services; Improving productivity; Making better use of human and estate resources; Meeting service needs within available resources.</td>
<td>8</td>
</tr>
<tr>
<td>8: Providing Flexibility for the Future</td>
<td>Future expansion or retraction opportunities to cope with changes in demand and changes in the way services are delivered; Potential adaption of facilities for alternative uses.</td>
<td>6</td>
</tr>
</tbody>
</table>
### Table 24: Qualitative benefits criteria

<table>
<thead>
<tr>
<th>Investment Objectives</th>
<th>Main benefits criteria</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>9: Practicality and Timeliness of Delivery</td>
<td>Practicality of delivery of physical proposals; Practicality of delivery of service proposals; Practicality and timescale of external changes required (for example to transport infrastructure); Facilities to be fully operational by end of 2012; Ensuring services are maintained through construction with minimal disruption; Impact on local community during construction; Impact on other local Projects; Acceptability to staff, patients, their families and the wider community; Planning implications.</td>
<td>6</td>
</tr>
</tbody>
</table>

These weightings are shown graphically below:

![Graph showing qualitative benefits criteria weightings]

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

**Figure 12: Qualitative Benefits Criteria Weightings**

### 2.6.3 Qualitative Benefits Scoring

Benefits 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.

Subsequent to the workshop option 4 was subdivided into options 4a and 4b. Option 4a excluded the space currently utilised for CDC whilst option 4b included use of this area. However, 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.
2.6.4 Analysis of Key Results

The results of the appraisal are shown in the table below:

<table>
<thead>
<tr>
<th>Investment Objectives</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Options 4a and 4b</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Maximising access to services</td>
<td>11</td>
<td>110</td>
<td>55</td>
<td>110</td>
</tr>
<tr>
<td>2: Improving the clinical quality of services</td>
<td>125</td>
<td>250</td>
<td>200</td>
<td>250</td>
</tr>
<tr>
<td>3: Optimising the environmental quality of services</td>
<td>15</td>
<td>135</td>
<td>120</td>
<td>150</td>
</tr>
<tr>
<td>4: Developing existing services and/or provision of new services</td>
<td>24</td>
<td>120</td>
<td>96</td>
<td>120</td>
</tr>
<tr>
<td>5: Improved strategic fit of services</td>
<td>10</td>
<td>80</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>6: Meeting training, teaching and staff support needs</td>
<td>35</td>
<td>63</td>
<td>63</td>
<td>63</td>
</tr>
<tr>
<td>7: Making more effective use of resources</td>
<td>32</td>
<td>76</td>
<td>64</td>
<td>80</td>
</tr>
<tr>
<td>8: Providing Flexibility for the Future</td>
<td>12</td>
<td>48</td>
<td>36</td>
<td>60</td>
</tr>
<tr>
<td>9: Practicality and Timeliness of Delivery</td>
<td>18</td>
<td>60</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>282</td>
<td>942</td>
<td>744</td>
<td>993</td>
</tr>
<tr>
<td>Rank</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 25: Benefits appraisal results

The chart below shows these scores graphically:

Figure 13: Benefits appraisal scores

The key considerations that influenced the scores achieved by the various options were as follows:

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 ranks fourth.

Key considerations influencing its score are:

- It provides accommodation which would not fully comply to current standards;
- It would resolve some backlog maintenance issues within the current facilities;
- It is not consistent with the strategic plans for the Royal Shrewsbury site.
Option 2: The refurbishment of the Chemotherapy Day Centre (CDC) with a new build extension

This option ranks second.

Key considerations influencing its score are:

- It provides high quality accommodation which would fully comply to current standards;
- Makes use of the existing CDC accommodation but refurbished;
- It provides good proximity to the existing Radiotherapy Centre;
- It will provide the required capacity and reflects the agreed model of care;
- However there may be some difficulties in construction within a very constrained site;
- The location may adversely affect the development of Accident and Emergency services at the Royal Shrewsbury Hospital site.

Option 3: A new build facility located between the Radiotherapy Centre and the Ward Block at RSH

This option ranks third.

Key considerations influencing its score are:

- It provides high quality accommodation which would fully comply to current standards;
- It provides good proximity to the existing Radiotherapy Centre;
- It will provide the required capacity and reflects the agreed model of care;
- However there may be some difficulties in construction within a very constrained site.

Options 4: The part refurbishment of the Radiotherapy Centre at RSH with a new build extension (with or without the use of the existing CDC area)

This option ranks first.

Key considerations influencing its score are:

- It provides high quality accommodation which would fully comply to current standards;
- It provides good proximity to the existing Radiotherapy Centre;
- It will provide the required capacity and reflects the agreed model of care;
- There is some potential to improve some areas of the existing Radiotherapy Centre, in particular entrance and waiting areas and to create a single entry point for all outpatient / day cancer patients;
- However, there may be some construction difficulties or additional costs due to the differing site levels and re-routing of the road.

2.6.5 Qualitative Benefits Appraisal Sensitivity Analysis

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 H. In summary the results are that under no circumstances does the preferred option change from Option 4.

2.7 Risk Appraisal – Unquantifiabilities

Given the relatively small size of the scheme, risk appraisal has been limited to weighting and scoring, in order to determine whether any of the short-listed options are inherently more risky, thereby allowing the Trust to make a more informed decision as to which option should become the preferred option.
2.7.1 **Methodology**

Risk appraisal has been undertaken and involved the following distinct elements:

- Identifying all the possible business and service risks associated with each option;
- Assessing the impact and probability for each option;
- Calculating a risk score.

2.7.2 **Risk Scores**

The range of scales used to quantify risk was as follows:

<table>
<thead>
<tr>
<th>Impact</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The table below shows the summary scores for each category:

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Score: Total for Section</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Option 1</td>
</tr>
<tr>
<td>Demand and Revenue</td>
<td>19</td>
</tr>
<tr>
<td>Operating Performance and Design</td>
<td>36</td>
</tr>
<tr>
<td>Construction and Development</td>
<td>123</td>
</tr>
<tr>
<td>Technology and Obsolescence</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>243</td>
</tr>
<tr>
<td>Rank</td>
<td>5</td>
</tr>
</tbody>
</table>

*Table 26: Summary Risk Scores*

Appendix I shows the complete risk scores for each option.

The key considerations that influenced the scores achieved by the various options were as follows:

**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 ranks fifth.

Key considerations influencing its score are:

- The design risks are associated with some uncertainties around the current accommodation;
- There may be some significant requirement for decanting which could compromise clinical services and cause inconvenience to patients;
- This option also scores the highest for defects in the existing building or causing damage to the existing building as it involves the highest utilisation of current facilities.
Option 2: The refurbishment of the Chemotherapy Day Centre (CDC) with a new build extension

This option ranks second.

Key considerations influencing its score are:

- The design risks are associated with obtaining planning permission;
- There may be some requirement for decanting the CDC which could compromise clinical services and cause inconvenience to patients;
- This option may also be affected by defects in the existing building or causing damage to the existing building as it involves the some utilisation of current facilities.

Option 3: A new build facility located between the Radiotherapy Centre and the Ward Block at RSH

This option ranks first.

Key considerations influencing its score are:

- The design risks are associated with obtaining planning permission, this is the highest score as this option involves the greatest amount of new build accommodation;
- There may be some requirement for decanting the Radiotherapy Centre which could compromise clinical services and cause inconvenience to patients.

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.

This option ranks equal fourth.

Key considerations influencing its score are:

- The design risks are associated with obtaining planning permission and are greater than option 4b due to the greater area of new build;
- This option may also be affected by defects in the existing building or causing damage to the existing building as it involves the some utilisation of current facilities.

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.

This option ranks equal third.

Key considerations influencing its score are:

- The design risks are associated with obtaining planning permission but are less than 4a as there is less new build required;
- There will requirement for decanting the CDC which could compromise clinical services and cause inconvenience to patients;
- This option may also be affected by defects in the existing building or causing damage to the existing building as it involves the some utilisation of current facilities.
2.8 Identification of 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:

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

Table 27: 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 particularly 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.

2.9 Description of 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.
2.9.1 Schedule of Accommodation

The table below shows a summary of the schedule of accommodation for the preferred option:

<table>
<thead>
<tr>
<th>Functional Zone</th>
<th>Area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance/Oncology Reception</td>
<td>63</td>
</tr>
<tr>
<td>Oncology</td>
<td>1,042</td>
</tr>
<tr>
<td>Haematology</td>
<td>848</td>
</tr>
<tr>
<td><strong>Sum of Gross Departmental Areas</strong></td>
<td>1,487.42</td>
</tr>
<tr>
<td>Plant &amp; Communication</td>
<td>0.01%</td>
</tr>
<tr>
<td><strong>Gross Internal Area</strong></td>
<td>1,977</td>
</tr>
</tbody>
</table>

*Table 28: Summary Schedule of Accommodation*

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

2.9.2 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.

Following detailed user engagement, additional accommodation requirements were identified within the oncology clinic, and the waiting areas, clinic and entrance areas were redesigned as a result.

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.
3.0 **The Commercial Case**

This section of the OBC outlines the proposal in relation to the preferred option outlined in the economic case.

### 3.1 Procurement Strategy

The options for procurement through the use of charitable funding are:

- **Procure 21 (P21)** – Whereby the Trust utilises its P21 partner. The main advantages of this process are the speed of implementation and a ‘one stop’ planning, design and build process including Business Case preparation if required.

- **Traditional** – Whereby the Trust appoints a planning and design team followed by competitive tendering for construction and commissioning of a new facility.

The following table summarises the differences between the procurement strategies in the areas of:

- Timescales;
- Cost elements;
- Risk (to the Trust);
- Quality.

<table>
<thead>
<tr>
<th></th>
<th>P21</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timescales</strong></td>
<td>Quickest – simple to engage P21 partner, design and build team;</td>
<td>More lengthy than P21 given consecutive competitive stages and</td>
</tr>
<tr>
<td></td>
<td>collaborative</td>
<td>continuity issues</td>
</tr>
<tr>
<td><strong>Cost Elements</strong></td>
<td>Project management Fairly high cost, depending on balance</td>
<td>Moderate cost</td>
</tr>
<tr>
<td></td>
<td>of Trust and Principal Supply Chain Partner (PSCP) resources</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Design &amp; build Nationally-agreed rates; potential</td>
<td>Moderate cost (market rates)</td>
</tr>
<tr>
<td></td>
<td>supply chain savings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cashflow Design / development paid for earlier in process (saving</td>
<td>Design / development costs incurred mainly after Full Business</td>
</tr>
<tr>
<td></td>
<td>later on)</td>
<td>Case (FBC) approval</td>
</tr>
<tr>
<td><strong>Risk (to the Trust)</strong></td>
<td>Cost certainty Low risk (guaranteed maximum price - GMP)</td>
<td>Medium risk – contingency sums allow for cost variations; no absolute certainty</td>
</tr>
<tr>
<td></td>
<td>Operational Risk Low – problems addressed proactively</td>
<td>Medium – problems addressed as and when they occur</td>
</tr>
<tr>
<td></td>
<td>Timing Risk Low – collaborative relationship; joint problem</td>
<td>Medium – Trust bears the risk and controls the process</td>
</tr>
<tr>
<td></td>
<td>resolution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality High – more industry-standard; quality / experience of</td>
<td>Locally-determined</td>
</tr>
<tr>
<td></td>
<td>supply chain members</td>
<td></td>
</tr>
</tbody>
</table>

*Table 29: Comparison of Procurement Routes*
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.

### 3.2 Potential for Risk Transfer

The general principle is to ensure that risks should be passed to ‘the party best able to manage them’, subject to value for money (VFM). Risk allocation has a lower importance within the P21 framework than with PFI options. P21 has a principle of open book accounting and a philosophy of shared gains and risk.

The table below outlines the potential allocation of risk:

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Potential allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
</tr>
<tr>
<td>1. Design risk</td>
<td></td>
</tr>
<tr>
<td>2. Construction and development risk</td>
<td></td>
</tr>
<tr>
<td>3. Transition and implementation risk</td>
<td></td>
</tr>
<tr>
<td>4. Availability and performance risk</td>
<td></td>
</tr>
<tr>
<td>5. Operating risk</td>
<td>✓</td>
</tr>
<tr>
<td>6. Variability of revenue risks</td>
<td>✓</td>
</tr>
<tr>
<td>7. Termination risks</td>
<td>✓</td>
</tr>
<tr>
<td>8. Technology and obsolescence risks</td>
<td></td>
</tr>
<tr>
<td>9. Control risks</td>
<td>✓</td>
</tr>
<tr>
<td>10. Residual value risks</td>
<td>✓</td>
</tr>
<tr>
<td>11. Financing risks</td>
<td>✓</td>
</tr>
<tr>
<td>12. Legislative risks</td>
<td>✓</td>
</tr>
<tr>
<td>13. Other project risks</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Table 30: Risk transfer matrix*

### 3.3 Proposed Charging Mechanisms

The organisation intends to make payments with respect to the proposed products and services as follows:

- Interim payments during design development and construction;
- Agreed cash flow plan as part of the GMP negotiation;
- Payment complete by the end of the defects liability period.
3.4 **Proposed Contract Lengths**

The contract lengths will be from project initiation through to practical completion, handover and the defects liability period, to be determined in agreement with the PSCP or main contractor.

The detailed master delivery programme for the project is included within the Estates Annex and indicates that the construction period of the project will be delivered over a 15 month time period.

3.5 **Proposed Key Contractual Clauses**

These are as described within the P21 National Framework or, if not P21 will follow national recognised forms of contract.

3.6 **Personnel Implications (including TUPE)**

It is anticipated that the TUPE – Transfer of Undertakings (Protection of Employment) Regulations 1981 – will not apply to this investment.

3.7 **Accounting Treatment**

Revenue items will be recorded within income and expenditure as expensed or on accruals basis.

Donated capital items will be capitalised at fair value on receipt with the funding element recognised as income as required by IAS20 and as interpreted within HMT Financial Reporting Manual 2011-12.
4.0 The Financial Case

The purpose of this section is to set out the forecast financial implications of the preferred option (as set out in the economic case section) and the proposed deal (as described within the commercial case section).

4.1 Capital Costs

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

<table>
<thead>
<tr>
<th>(£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Works costs</td>
</tr>
<tr>
<td>Fees</td>
</tr>
<tr>
<td>Non Works Cost</td>
</tr>
<tr>
<td>Planning Contingency</td>
</tr>
<tr>
<td>Optimism Bias</td>
</tr>
<tr>
<td>Total (exclusive of VAT)</td>
</tr>
<tr>
<td>VAT @ 20%</td>
</tr>
<tr>
<td>Total (inclusive of VAT) at Reporting Level MIPS 480</td>
</tr>
<tr>
<td>Provision of 4 en suites to existing inpatient single rooms for head and neck cancer inpatients</td>
</tr>
<tr>
<td><strong>Total Capital Costs</strong></td>
</tr>
</tbody>
</table>

Table 31: 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.

4.2 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.
### 4.3 Cash flow

The following table shows the anticipated cash flow required:

<table>
<thead>
<tr>
<th></th>
<th>Phase 3/4 Fees (£000)</th>
<th>Build (£000)</th>
<th>Total (£000)</th>
<th>Lingen Proportion (£000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 2011</td>
<td>90,000</td>
<td>90,000</td>
<td>65,009</td>
<td></td>
</tr>
<tr>
<td>March 2011</td>
<td>86,000</td>
<td>86,000</td>
<td>62,120</td>
<td></td>
</tr>
<tr>
<td>April 2011</td>
<td>94,161</td>
<td>94,161</td>
<td>68,014</td>
<td></td>
</tr>
<tr>
<td>May 2011</td>
<td>90,000</td>
<td>90,000</td>
<td>65,009</td>
<td></td>
</tr>
<tr>
<td>June 2011</td>
<td>70,000</td>
<td>70,000</td>
<td>50,562</td>
<td></td>
</tr>
<tr>
<td>July 2011</td>
<td>30,000</td>
<td>30,000</td>
<td>21,670</td>
<td></td>
</tr>
<tr>
<td>August 2011</td>
<td>30,000</td>
<td>30,000</td>
<td>21,670</td>
<td></td>
</tr>
<tr>
<td>September 2011</td>
<td>30,000</td>
<td>135,318</td>
<td>165,318</td>
<td>124,698</td>
</tr>
<tr>
<td>October 2011</td>
<td>26,514</td>
<td>263,507</td>
<td>290,021</td>
<td>221,932</td>
</tr>
<tr>
<td>November 2011</td>
<td>263,507</td>
<td>263,507</td>
<td>200,629</td>
<td></td>
</tr>
<tr>
<td>December 2011</td>
<td>263,507</td>
<td>263,507</td>
<td>200,629</td>
<td></td>
</tr>
<tr>
<td>January 2012</td>
<td>263,507</td>
<td>263,507</td>
<td>200,629</td>
<td></td>
</tr>
<tr>
<td>February 2012</td>
<td>263,507</td>
<td>263,507</td>
<td>200,629</td>
<td></td>
</tr>
<tr>
<td>March 2012</td>
<td>263,507</td>
<td>263,507</td>
<td>200,629</td>
<td></td>
</tr>
<tr>
<td>April 2012</td>
<td>263,507</td>
<td>263,507</td>
<td>200,629</td>
<td></td>
</tr>
<tr>
<td>May 2012</td>
<td>263,507</td>
<td>263,507</td>
<td>200,629</td>
<td></td>
</tr>
<tr>
<td>June 2012</td>
<td>310,071</td>
<td>310,071</td>
<td>236,082</td>
<td></td>
</tr>
<tr>
<td>July 2012</td>
<td>387,963</td>
<td>387,963</td>
<td>295,387</td>
<td></td>
</tr>
<tr>
<td>August 2012</td>
<td>301,402</td>
<td>301,402</td>
<td>229,482</td>
<td></td>
</tr>
<tr>
<td>September 2012</td>
<td>301,402</td>
<td>301,402</td>
<td>229,482</td>
<td></td>
</tr>
<tr>
<td>October 2012</td>
<td>137,105</td>
<td>137,106</td>
<td>104,479</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>546,674</strong></td>
<td><strong>3,681,317</strong></td>
<td><strong>4,227,991</strong></td>
<td><strong>3,200,000</strong></td>
</tr>
</tbody>
</table>

*Table 32: Cash Flow*

### 4.4 Enabling works

The refurbishment of the current haematology clinic accommodation to provide suitable accommodation for the cancer clinical trials team has not been fully costed, however the clinical trials team have funding available and the refurbishment will be contained within this amount.
4.5 **Revenue Costs**

The table below gives details of the current and hence future annual costs:

<table>
<thead>
<tr>
<th>Function</th>
<th>Capacity</th>
<th>Current Costs (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haematology</td>
<td>Outpatients 2 Consulting Rooms</td>
<td>129,835</td>
</tr>
<tr>
<td></td>
<td>Daycase 6 Treatment Chairs</td>
<td>157,885</td>
</tr>
<tr>
<td></td>
<td>Daycase 1 Treatment Bed</td>
<td></td>
</tr>
<tr>
<td>Haematology Total</td>
<td></td>
<td>287,720</td>
</tr>
<tr>
<td>Oncology</td>
<td>Outpatients 6 Consulting Rooms</td>
<td>154,570</td>
</tr>
<tr>
<td></td>
<td>Daycase 16 Treatment Chairs</td>
<td>437,380</td>
</tr>
<tr>
<td>Oncology Total</td>
<td></td>
<td>591,950</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>879,669</td>
</tr>
</tbody>
</table>

*Table 33: Annual Revenue Costs*

4.6 **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:

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

*Table 34: Project Budget*

4.7 **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.
4.8  **Budget Control**

The project budget will be controlled by the Project Manager in accordance with the Trust’s Standing Financial Instructions. The Project Manager will produce regular reports to the Project Board of expenditure against budget.

The following budget monitoring measures will be adopted:

- Cash flows will be estimated and used to monitor actual expenditure against predicted expenditure;
- The Contractor team will report expenditure on all consultants / sub-contractors on a fortnightly basis;
- The Project Manager will produce monthly reports of expenditure for the attention of the Trust Board – to include exception reporting;
- The Assistant Director of Finance (Financial Accounting) will work with the Project Manager and monitor budgets.
5.0 The Management Case

This section of the OBC addresses the ‘achievability’ of the scheme. Its purpose is to set out the actions that will be required to ensure the successful delivery of the scheme in accordance with best practice.

5.1 Project Management Arrangements

5.1.1 Project Structure

The Project Organisation within the Trust will reflect ownership of the project at the highest level and will draw not only upon the traditional roles associated with capital project management, but also upon representatives from across the organisation, to ensure that the wider business objectives of the Trust are met. The primary objectives of the project organisation are to ensure:

- The construction of the building on time, and in accordance with the design brief;
- The transition process to ensure change is managed effectively;
- The operational commissioning of the building and service to realise the benefits of the scheme.

The proposed project structure is given below:

![Project Structure Diagram](image-url)

*Figure 14: Project Structure*

5.1.2 Project Responsibilities

**Project Board**

The Project Board will be responsible for:

- Providing strategic direction for the project;
- Ensuring the project remains aligned to the need for high quality patient facilities;
- Ensuring members represent the key organisations involved/parallel within this project;
- Ensuring the principles within the Capital Projects Policy are adhered to;
- Delivering the project on time and within available finances;
- Appointing the Project Manager;
- Agreeing the Project Initiation Document;
- Supporting the development of the Business Case;
• Project Monitoring;
• Reporting to the respective stakeholders.

The Members are as follows:

<table>
<thead>
<tr>
<th>Member</th>
<th>Title</th>
<th>Deputy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mrs J Clarke</td>
<td>Chairperson</td>
<td>Mrs D Vogler</td>
</tr>
<tr>
<td>Dr N O'Connor</td>
<td>Consultant Haematologist</td>
<td>Dr G Slocombe</td>
</tr>
<tr>
<td>Dr N Srihari</td>
<td>Consultant Oncologist</td>
<td>Dr R Agrawal</td>
</tr>
<tr>
<td>Mr A Prichard</td>
<td>Consultant Head &amp; Neck Surgeon</td>
<td>Mr A MacBean</td>
</tr>
<tr>
<td>Mr C Needham</td>
<td>Head of Estates</td>
<td>Mr. P Pattinson</td>
</tr>
<tr>
<td>Ms C Scott</td>
<td>SDM Cancer, Oncology &amp; Haematology.</td>
<td>Ms A Trumper</td>
</tr>
<tr>
<td>Mr C Benham</td>
<td>Assistant Director of Finance</td>
<td>Ms A Parkinson</td>
</tr>
<tr>
<td>Ms H Thompson</td>
<td>CiNCH representative</td>
<td>Mr S Luke</td>
</tr>
</tbody>
</table>

In Attendance

<table>
<thead>
<tr>
<th>Title</th>
<th>Deputy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr B Marsh</td>
<td>Lingen Davies Chairman</td>
</tr>
<tr>
<td></td>
<td>Mr D Clegg</td>
</tr>
</tbody>
</table>

Table 35: Project Board Membership

**Project Team**

Responsibilities:

• Day to day project involvement and delivery;
• Fortnightly project meetings;
• Ensuring all deliverables required by the Project Board are acted on and delivered;
• Acting as a communication channel for their respective areas of work.

The Members are:

<table>
<thead>
<tr>
<th>Project Role</th>
<th>Position</th>
<th>Name</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management</td>
<td>Project Manager</td>
<td>Matt Brown</td>
<td>Turner Townsend</td>
</tr>
<tr>
<td>Finance</td>
<td>Project Accountant</td>
<td>A Parkinson</td>
<td>SaTH</td>
</tr>
<tr>
<td>Clinical</td>
<td>Matron</td>
<td>Alison Trumper</td>
<td>SaTH</td>
</tr>
<tr>
<td>Facilities</td>
<td>Head of Facilities</td>
<td>J Yale</td>
<td>SaTH</td>
</tr>
<tr>
<td>Human Resources</td>
<td></td>
<td></td>
<td>SaTH</td>
</tr>
<tr>
<td>Estates</td>
<td>Senior Project Manager</td>
<td>J Winnal</td>
<td>SaTH</td>
</tr>
<tr>
<td>IM &amp; T Representative</td>
<td>Head of IM &amp; T</td>
<td>N Appleton</td>
<td>SaTH</td>
</tr>
</tbody>
</table>

Table 36: Project Team Membership

Meetings will take place fortnightly or more frequently as required.

Minutes of the meetings will be kept by the Project Manager.
**Commissioning/Transition Team**

Responsible for

- Ensuring all services required to support the patients and staff are operational from the completion date;
- Preparation of commissioning programme;
- Ensuring equipment is delivered in time;
- Ensuring procedures set out in Capital Investment Manual are adhered to.

**Design Team**

A design team with the following responsibilities will be appointed:

- Design of the potential solution;
- Overall co-ordination of trades and services;
- Report to Project Team – through Design Team Leader;
- Responsible for reporting against budget to Project Team;
- Responsible for completing design in sufficient time for contractor to carry out works without delay and additional cost to the contract;
- Responsible for minimum of monthly Design Team Meetings;
- Responsible for ensuring design and costs meet Project Team and Project Board objectives;
- Responsible for ensuring accessibility for disabled users.

**The Investment Decision Maker (Project Sponsor)**

The Investment Decision Maker will be SaTH Trust’s Chief Executive.

The IDM will:

- Ensure that a viable and affordable business case exists for the project, with the revenue streams and impact clearly identified;
- Ensure the business case remains valid;
- Maintain visible and sustainable commitment to the project;
- Ensure the role of the project sponsor is established and understood with appropriate representation and commitment;
- Define the project owner’s terms of reference;
- Authorise the allocation of funds to the project;
- Oversee project performance through cost and schedule performance;
- Within the Trust’s Standing Financial Instructions and Standing Orders delegate authority for the project budget to the Project Manager;
- Resolve issues which fall outside the Project Director’s delegated authority.
Project Director
The Project Director is Julia Clarke, Director of Corporate Affairs SaTH. The Project Director will:
- Take the lead responsibility for the achievement of the project objectives;
- Agree and direct the activity of the project;
- Provide the key contact in respect of decisions required in order to progress the work;
- Provide the key link with the major stakeholders;
- Provide the key link with the clinical staff of SaTH;
- Be responsible for advising the project team of any matters that may affect the project in sufficient time that they may act in a professional manner to implement the change.

Project Manager
The Project Manager is Carol Scott, Service Delivery Manager for Cancer Oncology & Haematology at SaTH who will take responsibility for project tasks and activity and the production of the agreed deliverables from the Business Case process and ultimately achieve completion of the Cancer Centre Development.

The Project Manager will:
- Report to the Project Director;
- Monitor Progress against programme;
- Produce key stage reports;
- Work with SaTH's Procure21 team, in-house and external professional advisors to co-ordinate and develop the design of the required educational facilities;
- Champion the delivery of the project;
- Ensure project specific communication and consultation processes are in place;
- Take responsibility for risk tracking and mitigation;
- Instruct and manage external consultants outside the contractor team;
- Manage the budget for the project.

5.1.3 Project Plan
The table below shows the key milestones for the project. A full project plan is included within Volume 4: Estates Annexe.

<table>
<thead>
<tr>
<th>Key Milestone</th>
<th>Timescales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Business Case completed</td>
<td>30 June 2011</td>
</tr>
<tr>
<td>Full Business Case approvals process</td>
<td>30 June 2011</td>
</tr>
<tr>
<td>Begin construction</td>
<td>22 August 2011</td>
</tr>
<tr>
<td>Complete construction / commission</td>
<td>2 November 2012</td>
</tr>
<tr>
<td>Go live</td>
<td>30 November 2012</td>
</tr>
</tbody>
</table>

Table 37: Key Project Milestones
5.2 Arrangements for Risk Management

5.2.1 Overview

The management of risk will be embedded into the project management process:

- The requirements of Corporate Governance will be adopted, including more focussed and open ways of managing risk;
- The Project Director will be the “risk owner” at senior level – supporting, owning and leading on risk management;
- All members of the project team will own risk in commensurate quantum to their role;
- The project reporting structure will encourage reporting and upward referral of significant issues – risks will be actively monitored and regularly reviewed at the Project Board;
- The risk management framework for the consistent treatment of risk will be established at an early stage and will be shared at all levels of the organisation and also with partners – particularly in the context of the complex types of risk arising from joint working and partnerships;
- The project risk will be managed in the wider context of the whole Trust business.

The Trust is required to undertake a comprehensive assessment of the risk associated with the preferred option. The methodology to be used is shown below:

![Risk Overview Diagram](image)

*Figure 15: Risk Overview*

The approach adopted involves firstly identifying potential risk areas such as design, development and construction and operating risk. The preferred option is then assessed on a scale of high (H), medium (M) or low (L) in two respects:

- Likelihood of risk occurring; and
- Impact of risk on the Trust should it occur

The overall exposure to risk is then clearly a product of the likelihood of risks occurring, and their impact, taking into account the likely effectiveness of the identified risk management strategy. A risk management plan addressing each of the key risk areas is also developed as part of the process.
5.2.2 Identification of Risk

A combined project risk matrix has been developed in conjunction with Interserve. This matrix identifies all project risks and is included within Volume 4: Estates Annexe.

5.3 Arrangements for Benefits Realisation and Post Project Evaluation

The Trust is committed to full evaluation of all major schemes and projects through a formal evaluation methodology that will provide for:

- Evaluation by the Trust of the capital development, with involvement as necessary from local commissioners;
- The subsequent evaluation by commissioners of achievement against outputs;
- An evaluation of the total project by the Trust.

Post Project Evaluation will be undertaken as an integral part of the monitoring of benefits realisation.

The Trust had developed a Benefits Realisation Plan to establish the specific benefits that will be achieved through delivery of the project. The full benefits realisation plan is attached as Appendix J.

The Trust will also create a 'lessons learned log' which will consider the issues raised and potential solutions to avoid reoccurrence in the future. The lessons learned log will consider issues within the following areas:

- Finance;
- Design;
- Consultants;
- Construction;
- Snagging/handover;
- Post completion/defects;
- Operational issues.

5.4 Gateway Review Arrangements

Gateway Reviews undertaken within the NHS have identified a range of common deficiencies within projects. These key areas have been reviewed under this project to ensure they were being managed as follows:

- Risk – A clearly structured risk management process has been put in place with regular review of the project risk register. Section 9.3 refers;
- Roles and Responsibilities – A clear project structure exists for the management of this project with the Senior Responsible Officer and Project Director identified;
- Skills and Resource – The Trust is experienced and well resourced and is supported by legal, financial and technical specialists;
- Business Case - The need for a robust Business Case was identified at an early stage and has in part driven the project development;
- Planning – A programme was developed early in the scheme development and has been a strong management tool in moving the project forward;
- Stakeholder Issues – Stakeholder management has been a key focus in the projects development as it integrates various Trust departments, other NHS bodies, GP’s and third party organisations;
- Benefits – A clear benefits realisation plan has been developed and is embedded in the project processes;
• Financial Issues – Finances have been robustly managed as the project has developed to ensure the project is affordable and value for money.

A Risk Potential Assessment was undertaken, and is included at Appendix K, a score of 21 was achieved. Projects with a score of 30 or less are low risk.

As a consequence of the Risk Potential Assessment undertaken and the above self analysis of the project against key historical Gateway issues it was determined that a Gateway Review was not necessary.

5.5 Contingency Plans

In the event that this project fails, the current arrangements which are in place for continued delivery of the required services and mitigation of the risk would continue. However, it must be noted that these contingencies cannot continue long term as their effectiveness diminishes due to the continuing increase in the risks due to the continuing deterioration of the physical environment and also the inability of the Trust to provide appropriate capacity to meet commissioner expectations.

6.0 Recommendation

This Business Case sets out the arguments 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.

The over-arching 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.”

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.