1. **Purpose of Report (Including link to objectives)**

To seek approval for a replacement Linear Accelerator (LINAC) and a third LINAC bunker which are required to maintain patient safety, improve the patient experience and ensure that the Trust has the technology and capacity to meet the radiotherapy requirements of the 2007 Cancer Reform Strategy.

2. **Summary of Key Issues for Discussion**

**Background.**

1. Assuming cancer services are and remain a core part of RUH business this proposal for a replacement Linear Accelerator and a third LINAC bunker is seen as essential.

2. The 2007 Cancer Reform strategy recognised the need over the next 5 years for an increasing number of LINACs, Consultant oncologists and radiographers.

3. This was endorsed by the more recent National Radiotherapy Advisory Committee (NRAG) report which also indicated that there will be a need to significantly expand Radiotherapy services over the next 7 years to meet the expected increase in demand.

4. The oldest linear accelerator, which has become increasingly unreliable, is due for replacement in 2009.

5. As commissioning a linear accelerator can take up to six months a third bunker is required to prevent loss of service during the commissioning period for the replacement.

**Bunker.**

1. The Trust received £1m towards the cost of a third bunker from the Department of Health three years ago.

2. Various options have been considered for the placement of the third bunker with the option chosen being the best option when considering both future expansion plans (Radiotherapy) and the...
“best fit” with the Trust’s Emerging Hospital Strategy.

**Linear Accelerator.**
1. Oncology has a legacy of £850k to support the cost of the replacement LINAC.
2. Only three options were considered for the replacement LINAC, one of which was do nothing which was rejected.
3. The other options were around tendering for one or two LINACs as the second LINAC will also require replacing in 2012. The latter option was taken on the assumption that tendering for two would result in a discounted price.
4. No tender has yet been undertaken however the assumption at 3 follows discussions with manufacturers/suppliers.
5. The replacement LINAC will give us the required technology to deliver state of the art radiotherapy services, including new and more focused forms of radiotherapy treatment, over the next ten years.

### 3. Recommendations (Note, Approve, Discuss etc)

The Trust Board is asked to approve the Business case

### 4. Standards for Better Health (which apply)

C11, C20

### 5. Legal / Regulatory Implications (NHSLA / ALE etc)

Linked to the NRAG report and the Cancer Reform Strategy that indicates the need to expand Radiotherapy capacity over the next 5 – 7 years. The third bunker is essential for continuity of service when the LINAC is being replaced.

### 6. Risk (Threats or opportunities link to risk on register etc)

The main risks associated with non-approval of this business case include:
- Increased disruption to radiotherapy service due to downtime of the old and increasingly more unreliable Linear Accelerator
- Inability to provide the state of the art more focused treatments available with new technology
- Failure to meet both the existing and the new waiting time targets for radiotherapy treatment
- Loss of activity and income if patients choose to have more up to date treatment with another service provider.
### 7. Resources Implications (Financial / staffing)

#### Capital Cost:
- LINAC Bunker: £1,624,000
- Linear Accelerator: £2,092,000
- Less Legacy: £850,000
- **Net Capital Costs** £2,866,000

#### Revenue Costs:

<table>
<thead>
<tr>
<th>Linac bunker</th>
<th>Current Costs</th>
<th>Business Case</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation pa (30 years)</td>
<td>0</td>
<td>54,201</td>
<td>54,201</td>
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<tr>
<td>Average Cost of capital pa</td>
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<td>29,404</td>
<td>29,404</td>
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<tr>
<td>Running costs pa</td>
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<td>19,000</td>
<td>19,000</td>
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<tr>
<td><strong>Annual cost - Bunker</strong></td>
<td>0</td>
<td>102,605</td>
<td><strong>102,605</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>LINAC</th>
<th>Current Costs</th>
<th>Business Case</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Depreciation pa (10 years)*</td>
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<td>25,901</td>
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<tr>
<td>Average Cost of capital pa</td>
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<tr>
<td>Maintenance contract</td>
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<td>27,200</td>
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<tr>
<td><strong>Annual Cost LINAC</strong></td>
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<td>248,052</td>
<td><strong>77,000</strong></td>
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</tbody>
</table>

**Total annual revenue costs:** £179,605

### Funding:

The RUH is working with PCTs to review commissioning and funding arrangements for Oncology services. Radiotherapy and Chemotherapy are currently commissioned and funded through a block contract for services which with “world class commissioning” is deemed inappropriate and leaves the RUH “underfunded” for the services currently provided.

It is assumed that the revised commissioning arrangements will fully fund the cost of delivering oncology services including the increased cost of providing radiotherapy treatment.
8. **Equality and Diversity**

The improvement to waiting areas in reception and adjacent to the bunkers will improve access for wheelchair and bed bound patients. There are no other equality impact issues. An equality impact assessment is attached.

9. **Communication**

Good news story.

10. **References to previous reports**

11. **Freedom of Information**

Public