

Report to Trust Board

Date 28 September 2011

Agenda item no 6.2

Title	Replacement CT Scanner
Author	Interim Director of Finance
Responsible Director	Interim Director of Finance
Purpose	Information
Action required	To note the decision of the EMB and welcome the improvement in service that will result.
Executive Summary	The EMB has approved the go ahead for the installation of a second CT scanner to meet increasing demand, improve the patient experience and reduce the impact of breakdown of the existing machine. The capital cost of installation will be approx £600,000. A final decision has yet to be made on whether to buy or lease the actual machine, and approved revenue costs .
Relevant CQC standard/ NHS Constitution pledge	Most
Link to strategy/plans	Improving the patient experience Meeting performance targets Development of stroke services,
Impact assessment:	
- quality	Improved flow for patients and privacy and dignity
- financial/business	Capital cost of to prepare room for installation of scanner - QS estimate £493k including fees, excl VAT CT purchase cost £310,000 excl VAT or Leasehold quote of £4,9061 per annum plus VAT Enabling costs to re-locate Consultant Radiologists and secretary staff £20k including VAT. Potential for additional income
- equality/diversity	Enables the Trust to meet current requirement standards for patient dignity and privacy
- risk	Reduces delays in treatment because of capacity issues, impact of breakdown (present machine unreliable), stress levels in staff
- legal/statutory	None
- sustainability	Potential reduction in requirement for patients to travel elsewhere/ bring mobile unit onto site
Previous consultation/decision/ discussion/	Initial business case discussed at Trust Board February 2011 Proposal approved by EMG 19 September 2011

Introduction

This paper notifies the Board of the decision made by the Executive Management Board to progress the purchase of an additional CT scanner. The decision was taken under authority delegated to the Executive Management Board to approve capital projects with a cost of less than £1m.

Background

The CT service at Bedford Hospital NHS Trust has seen steady year on year increases in demand for many years (see table below showing total CT demand).

This reflects changes in patterns of clinical management across many specialities, especially in the investigation of suspected cancer, monitoring of response to treatment of proven cancers and in the investigation pathway of acute abdominal conditions and suspected pulmonary embolus. Additionally CT now plays a much greater part in the early management of stroke, requiring much shorter waiting times than had been the case until one year ago.

Year	Demand (examinations)	% increase
2007/2008	9,272	-----
2008/2009	11,319	22
2009/2010	12,469	10
2010/2011	14,559	17

To date the Radiology department has risen to the challenge of increased demand by increasing efficiency (faster throughput of patients following the use of Lean methodologies) and extending the working day to 10 hours. Currently CT utilisation rates exceed 95%.

The Radiology department has managed demand, where possible, by substituting the most appropriate investigations such as nuclear medicine scans for suspected pulmonary emboli and IVUs for urinary tract calculi and investigation of haematuria rather than routinely adopting CT scan equivalents.

The CT activity chart shows that capacity has reached a plateau of 12,400 scans per annum, of which 770 are out of hours scans. A demand graph indicates a shortfall of 2,150 CT scans in the year 2010/11.

Some CT investigations that would be useful to the Trust such as CT colonoscopy have not been developed and are not currently available at Bedford Hospital. The national bowel screening program requires that incomplete optical colonoscopies are completed by CT colonography during the same hospital visit. CT colonography is of comparable sensitivity to the gold standard of optical colonoscopy, if available it would be used to support the endoscopy suite and to provide high quality 'straight to test' direct access for GPs.

Waiting times are currently 2 weeks for cancer staging scans and 5 weeks for routine scans, only possible with a mobile CT visiting two days per week. It is reasonable to predict another escalation in demand in the Autumn of 2011, the first five months data shows demand in excess of 15,000.

Length of stay is also affected. Spot surveys over the last year have generally shown rapid appointments for head CT and surgical abdomens accompanied by a steady deterioration in appointment times for medical body scans. There have been recent examples of inpatients waiting for five days for a CT scan. This is a significant cost to the Trust.

We can expect increased inpatient, cancer patient, outpatient and GP direct access demand. The planned 'care close to home' repatriation plan over the next 3 years will have a direct

effect on demand for diagnostics. Recent pan European cancer survival data has highlighted the need for earlier detection by enhancing primary care access to modern diagnostics, a sentiment supported by the Secretary of State.

Privacy & Dignity

Currently, provision of patient centred facilities such as changing rooms, waiting areas and toilets do not afford privacy and dignity. Waiting facilities for inpatients are particularly poor. The corridor extending from the ultrasound suite to CT and tiny ultrasound waiting recess are often filled with beds containing patients of both sexes in full view of outpatients, visitors and staff.

Our Aspiration

The Radiology department's aim is to provide appointments for all in patient requests on the same day or next day.

to offer CT staging scans for proven or strongly suspected cancer within 1 week for any patient referred on the cancer pathway.

to offer other appointments within 4 weeks, with enough capacity to offer all patients a choice of appointment times.

to offer these services in a building fit for the 21st century, with segregated male and female changing and sub wait facilities, adequate disabled facilities and seating for all.

The proposed project will provide the required patient facilities that will enable the Trust to treat patients while respecting their privacy and dignity during the patient pathway. The proposed plan also enables the project to link to the phased development of the radiology department.

Options for increasing CT capacity

The following options were considered

Option 1: Extend the working day further

Option 2: Weekend working

Option 3: Outsourcing to other units

Option 4: Visiting mobile CT scanner

Option 5: 2nd CT Scanner

Option 6: Do nothing

Option 5 was selected as it will deliver faster patient care, higher standards of investigation, improved patient experience and an extended diagnostic range and the best combination of benefits and present cost (over 5 years).

Key metrics:

Metric	Value (£000s)
CT scanner capital cost	372
Capital charge estimate per annum for scanner	61
Building & engineering cost estimate to support scanner and privacy & dignity issues	592
Capital charge estimate per annum related to building works	42
Gross saving per annum in mobile scanner rental	tba
Net revenue impact per annum	tba

Project Timescale:

Programme multi phase build 22 Weeks.

The completion of the sub wait, changing room and CT 2 completed by 24/02/12
full project completion by April 2012.

Conclusion

The Board is asked to note the decision taken by the Executive Management Board.