Healthy outlook for cardiac patients

The new Cardiac Centre at Blackpool's Victoria Hospital benefits patients across the whole of the North West and beyond. Former Secretary of State for Health John Reid, who performed a turf cutting ceremony said the centre would help reduce heart-related deaths in the region beyond the 23 per cent reduction achieved nationally.

Overview

Before the new Cardiac Centre was built, Blackpool, Fylde and Wyre Hospitals NHS Trust was already a regional Cardiac Centre for the North West, providing specialist services to heart patients throughout Lancashire and South Cumbria.

Based at Blackpool Victoria Hospital, the trust’s Cardiac Division has 30 years’ experience of carrying out adult heart surgery and is at the leading edge of service delivery. The trust, which serves a population of around 1.5 million potential cardiac patients and the 16 million visitors who visit the area every year, had even greater ambitions for its future development.

Capital Planning Manager David Lee explained, “We wanted to compete successfully in the cardiology/cardiothoracic healthcare market and provide a high quality, patient-centred service for local, national and international clients.”

The PSCP was appointed in November 2002 on the basis of its commitment, experience, the project leader and the integration of the team. The status of the scheme at the time was at the initial Outline Business Case with outline design and schedules of accommodation complete along with budget business case forms. The PSCP worked with the trust over a 12 month pre-construction period, developing the Full Business Case and Target Price for the scheme.

Work started on site in November 2003, with the first 12 months spent on enabling works. This included construction of a new access road to ease pressure from the existing highway outside the hospital.

The 14,000m² Cardiac Centre was completed in February 2006 – five weeks early, with £200,000 in savings returned to the trust.

The £51.6 million development has 114 in-patient beds, 20 cardiology day case beds, 20 critical care
Principles and objectives

The Cardiac Centre was one of the first ProCure21 schemes to be commissioned and many in the project team were new to the process. This involved a culture change from traditional procurement methods.

On opening the centre, former Health Secretary John Reid praised the ProCure21 process.

"This new fast-track process for approval cut in half the time it took from the appointment of Laing O'Rourke to the start of the work. The scheme is an excellent example of the ProCure21 initiative working in practice."

Former Health Secretary, John Reid

Major issues

- There was concern from the early stages about affordability, resulting in a value management exercise being undertaken. When the PSCP felt it could go no further in cost reduction, the trust amended some elements of the scheme to introduce savings (the building length was reduced by nine metres, for example). It was planned to add back these reductions should the final construction costs reveal further savings.

- This major development required access through the hospital. Planning the construction process in partnership with the clinical team was of enormous benefit.

Achievements and benefits

- £200,000 cost savings – this allowed the reintroduction of items previously omitted or downgraded at target price stage: stonework in place of blockwork; enhanced canopy; upgrading of landscaping; external lighting; improved finishes and enhanced data infrastructure services.

- Partnering under ProCure21 enabled a proactive approach to be developed with a “can do” approach by the whole team. This began with a managed programme in terms of time, resources and costs, which enabled the marrying of expectations of the user and designer with the budget.

- Innovation in methods/solutions such as designing the external wall with a membrane fitted early to give weather protection, allowed the building to move quickly forward, taking cladding off the critical path.

- Planning enabled a considerable amount of off-site fabrication, reducing congestion and delay on site. Precasting, avoiding wet trades, and off-site manufacture reduced the need for site skilled resources and maximised tidiness and cleanliness. Lean construction techniques were thereby developed to reduce waste by using the latest technology.

- The schemes employed the local workforce and introduced training and apprenticeships.

- Technical design workshops provided an interface between users and the supply chain (early supply chain involvement).

- Value engineering and market testing gave a route to affordability. Users were engaged in value engineering and value management workshops.

- Risk workshops and risk reduction techniques (a proactive rather than reactive approach).

- Open and transparent systems for audit and scrutiny using the NEC Contract.

- Developing team relationships resulted in add-ons – third and fourth wave schemes are in negotiation.

beds, four cardiothoracic theatres, four catheter laboratories, an integrated outpatient department (including X-Ray and cardiac investigations) and a purpose-built education centre.

Mike Gallagher, the trust’s Director of Facilities and the Project Director, said, “The trust’s requirements were placed at the forefront of all considerations throughout the development. We have delivered a project which represents the best value for money solution we could possibly have achieved.”

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A further development – a Twin Day Case Theatres scheme, completed in December 2005 – was also built by the same PSCP on the site. Much of the experience gained on the Cardiac Centre scheme was brought into this project.

Team collaboration in reviewing methodologies with the supply chain. The method of constructing the retaining wall saved £800,000; review of cladding systems revealed that masonry was cheaper than many other systems.

John Worsley, the trust’s Capital Project Manager, said, “The partnering relationship was a major benefit to the trust by removing the conflict which is part of traditional contracting.”

Successful initiatives

- Modular wiring – gave a massive reduction in site labour and time.
- Specialist piling equipment reduced the impact on the environment. Construction was next to an obstetrics and gynaecology unit so the noise had to be kept to a minimum.
- Sustainable design met climate change and energy targets.
- Design promoted natural ventilation, shading and daylight.
- Hinged Integrated Plumbing System (IPS) panels.
- The construction team ‘future-proofed’ the structure by building in space and facilities for additional services and complex medical equipment to be installed.
- Mock-up rooms were built to achieve quality benchmarks as the work proceeded.
- The Health and Safety Executive used the scheme as a training site and an example of ‘how it can be done’. The site also achieved a very low accident record, with zero reportable accidents or incidents.

- Risk reduction techniques and resultant savings allowed scheme enhancements such as a stone façade, improved finishes and landscaping.

Materials/technology

The team sought intelligent building and design solutions including the following:

- Modular wiring – gave a massive reduction in site labour and time.
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Contacts

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