PROCURE 21

NHS

Leighton Hospital
Treatment Centre, Crewe

Design with dignity

Leighton Hospital Treatment Centre in Crewe, Cheshire, is the biggest single development in the area's healthcare since Leighton Hospital opened in the late 1960's.

Overview

Light, airy and spacious, the new building features innovations to promote patient dignity and privacy as well as practical solutions for easy maintenance and access.

The centre is staffed by 160 people and specialises in day surgery, treating conditions such as hernias, cataracts and varicose veins. It has four main operating theatres and one theatre for minor treatments, along with four endoscopy rooms, a pre-operative assessment clinic, consulting rooms and 30-trolley recovery ward.

Mid-Cheshire Hospitals NHS Trust and its PSCP started work on the design in July 2003. Work began on site in July 2004 and was completed 11 weeks ahead of schedule in October 2005.

"Delivering the scheme early meant an additional 7,000 patients could be treated," said Colin Cadwallader, the trust's Director of Estates and Facilities. "Some 8,000 extra clinical procedures were carried out and waiting lists fell more than the expected rate." The trust won a Treatment Centre Innovations Award from the NHS for involving patients in the planning and design of the centre.

Despite working to a tighter budget than envisaged, the team also designed and delivered a new £1.2 million sexual health clinic, not within the original brief. The clinic used the same design and construction teams already on site, therefore providing "added value."

Achievements and benefits

- The centre was delivered 11 weeks early and £500,000 under budget. The trust was able to spend the money saved on a land purchase, car park construction and equipment for the building.
- Ensuring the design was developed around the needs of patients and healthcare professionals resulted in innovations, such as enema rooms with en-suite facilities located in close proximity to the relevant theatre or endoscopy room. Patients have rapid access to toilets and do not have to wait in a general waiting area after an enema, ensuring that their privacy and dignity is maintained.

"It is flooded with natural light and ventilation and is a relaxed and non-clinical environment."

- Involving patients at the design stage also identified the need for a porter to support people with disabilities at reception and the development of a bus route to the town centre.
- Special attention was paid to the requirements of people with disabilities. Corridors are wider than average and, in postoperative recovery areas, there is space for beds with lifting hoists.
- Specialised trolleys can be used as theatre tables, so there is no need for patients to be transferred from bed to table for surgery.
- Innovative changing rooms with lockers eliminate the need for patient property bags to be transported around with the patient.
- Design was developed around patient flow – pre and post procedure patients do not meet, therefore improving patient experience.

Paul Scarisbrick, of AEDAS Architects which designed the centre, said the clinical waiting area was the hub of the development. "It is flooded with natural light and ventilation and is a relaxed and non-clinical environment."

Principles and objectives

The overall project objective was to deliver a safe, high quality, cost effective and environmentally sustainable facility, that would adapt to the changing requirements of a modern NHS.

"The project ran extremely well. It delivered quality for patients to budget and was completed 11 weeks early..."

Colin Cadwallader initially had reservations about the scheme. "I was conscious that when some developments are completed, they bear little relationship to what is actually required," he explained. "I was clear from the outset that we needed input from clinicians and patients to arrive at the best result."

Colin said, "The project ran extremely well. It delivered quality for patients to budget and was completed 11 weeks early resulting in revenue savings to spend elsewhere. We got it right from the outset and all the clinicians came on board."

He added, "With regard to sexual health, we previously had very poor facilities in this area. Now our new sexual health clinic is among the best."

Major issues

The scheme was originally a Private Finance Initiative (PFI) budgeted at £14.42 million. This was reduced to £12.5 million, following an announcement that it would be publicly funded. Additionally, staff parking was lost due to the siting of the Treatment Centre and work could not start until the trust bought neighbouring farmland as replacement parking.

The centre started life as a two storey building but this was changed to single storey, resulting in better access and patient flow. Following discussions with users, the 4,400m^2 plan grew to over 5,000m^2 This was eventually reduced to 3,995m^2 without compromising clinical provision or objectives.

Successful initiatives

Materials/technology

- Construction of a combined heating and power unit for maximum energy efficiency. Thermal modelling of the building allows conditions perfect for patients and staff.
- A compression crimping system for pipework eliminates the need for hot welding torches and solder within the building – no fumes are expelled into the atmosphere.
- Use of a finished ductwork system for air distribution. Ducting was formed from "sandwich" panels with aluminium facings on both sides. The panels can be fabricated on site as required to fit awkward spaces, unlike sheet metal ductwork designed and manufactured off site.
- Locating theatre/plant maintenance access space above theatres. This allows good maintenance access from above without disturbing clinical function – minimising theatre downtime.
- An illustrative approach to production drawings provided easy to understand information. For example, acoustic partition types, fire rating, whether X-Ray protection is needed or not is all clearly shown.
- Use of lightweight metal cladding system to replace internal blockwork. The wall structure is watertight early on due to the speed of installation.

"We continued a partnership approach throughout the project, presenting solutions alongside any problem, and discussing process efficiencies where beneficial to the project as a whole."

Peter Gustard, Operations Manager for Interserve Health

Contacts

For further information on this scheme contact:
Colin Cadwallader,
Director of Estates and Facilities MCH NHS Trust

t: 01270 612300
e: colin.cadwallader@mcht.nhs.uk

For design and construction related queries:
Peter Gustard, Operations Manager,
Interserve Health

t: 01977 522300
e: peter.gustard@interserve.com

For ProCure21 queries please contact p21helpdesk@dh.gsi.gov.uk