ProCure21+

REPEATABLE ROOMS AND
STANDARDISED COMPONENTS

Case study

Wrightington, Wigan and Leigh NHS Foundation Trust
Wrightington Hospital Orthopaedic Centre

Repeatable Rooms and Standardised Components achieve time, cost and operational benefits at Wrightington

New £18m Orthopaedic Centre opens for business five weeks early and achieves "quite considerable operational benefits" at Wrightington, Wigan and Leigh NHS Foundation Trust
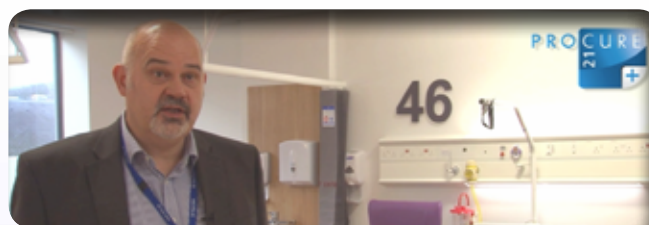
In a four-phase programme, Wrightington, Wigan and Leigh NHS Foundation Trust has set out to remodel its service offering. Phase One of the programme is an £18m Orthopaedic Centre designed to enhance the position of the Trust as a regional centre of excellence for elective orthopaedic surgery. The new centre replaces four operating theatres and two wards, based on Nightingale layouts, that the Trust's director of strategy Richard Mundon says were "not compatible with our aim of providing the best quality patient experience."

The Trust was introduced to the concept of Repeatable Rooms and Standardised Components early in the design process by its ProCure21⁺ Principal Supply Chain Partner (PSCP), Integrated Health Projects (IHP). IHP had worked closely with the Department of Health to develop the Standardisation programme, and felt that the Trust would benefit from incorporating the repeatability concept into the scheme. "The benefits were clear, and they were a good fit with the Trust's objectives," says IHP framework manager John Millington. Richard Mundon agrees: "We had to present our business case in terms of improving quality and efficiency, and financial sustainability. We could see immediately that if we adopted the repeatable approach, not

only would we have a lower project cost, but also we knew we'd get a shorter design/build programme and some quite considerable operational benefits as well."

The new Orthopaedic Centre at Wrightington Hospital incorporates a "barn style" operating theatre and two surgical wards, each with three four-bed bays and 16 single rooms with en-suite facilities. Savings in programme time were achieved at design stage because the PSCP

△ *Wrightington, Wigan and Leigh's strategy director Richard Mundon talks about the benefits of using the repeatable concept at* **www.procure21plus.nhs.uk/standardisation/**

was able to minimise clinicians' time in design meetings by gaining approval for one design, which was then built multiple times. "We were able to save a lot of time by going straight from the 1:50 layouts to a build scenario," says Chris Knights, WWL's project director for the new Orthopaedic Centre. "We were able to minimise design fees and that allowed us to do more with our budget than we thought. Plus, the cost benefits allowed us to progress the business case in a more timely way. Had we not used Repeatable Rooms and Standardised Components, I have absolutely no doubt that this development would never have got past the planning stage."

When the scheme progressed to build stage, Knights says, further time was saved on-site as build technicians were able to repeat processes and routines to a high standard across the
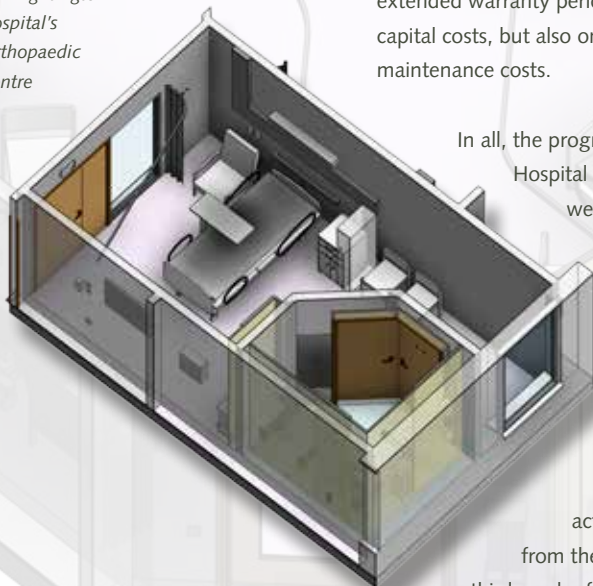

△ *Top: nighttime exterior shot of the Orthopaedic Centre at Wrightington Hospital.*
△ *"Barn-style" theatres at the Orthopaedic Centre: "not only do we gain efficiencies, but also safety assurance from repeatable designs," says Trust divisional medical director Anil Gambhir*

▽ *The Repeatable Room design for a single-bed room with outboard en-suite, as used at Wrightington Hospital's Orthopaedic Centre*

entire Centre. There were also cost savings, "partly as a result of the time savings, but partly as a result of incorporating standardised components including sanitary ware, doorsets and bedhead services," says Knights. The range of standardised components is supplied to Trusts with significant cost discounts and extended warranty periods. This saves not only capital costs, but also ongoing operational and maintenance costs.

In all, the programme at Wrightington Hospital was delivered five weeks ahead of schedule, and this gave the Trust an unanticipated benefit, as Richard Mundon explains: "We had planned to open in early February, but we actually started working from the new centre in the third week of December. And in December, of course, we were affected by floods and we weren't able to use two of our theatres and a ward elsewhere on the site. We were therefore able to use these fantastic new facilities to accommodate patients that we had to move from other wards, and it gave us a lot more resilience to maintain "business as usual" at what could have been a time of crisis."

As well as delivering the new Centre ahead of time, the programme came in "slightly under capital cost", says Mundon. "That's critical to us in this financial year, as it's helped us to manage our finances and keep money in the bank at a difficult time for the NHS."

EVIDENCE-BASED AND TESTED
The Repeatable Rooms and Standardised Components initiative is part of the Department of Health's Cost Reduction Programme for capital schemes within the NHS. The initiative began

in 2013 following a Department of Health conference at which 95% of NHS Trusts present voted to develop a set of evidence-based room designs that could be repeated across a new-build or refurbishment project.

The development process was "short but very intensive" according to programme director David Kershaw: "We began in 2013 by conducting a thorough review of the evidence-base to determine best design practice for a number of acute rooms, including a single-bed room with en-suite, a consult/exam room and a multi-bed bay that could be repeated to form a ward. An evidence matrix was drawn up, showing correlates between design parameters and patient/staff experience."

Following this, patient group representatives were invited to share their experience, and exemplars of good design from all procurement routes, including internationally, were added to the evidence matrix. Room designs were drawn up and subjected to expert panel reviews including representatives from the NHS, the construction industry, Royal Colleges and patient representative organisations, with feedback incorporated in the designs. In a rigorous test series, real-life processes were carried out in full-scale mock-ups of the room designs. BIM models were federated and costed before the room designs and components were rolled out in early 2014. The process was then repeated for Mental Health environments, leading to two repeatable room designs for functional and organic mental health users. Development is now well advanced for repeatable high- and low-acuity treatment rooms and a chair-centric space for Emergency Departments.

SAFETY AND EFFICIENCY
At WWL, divisional medical director Anil Gambhir is enthusiastic about the repeatability concept and its implications for safety. "In an environment where everything is in the same place, every time, not only do we gain efficiencies – and clinical time is precious, so we want to make our staff as productive as we can – but we crucially gain safety assurance,

> We could see that if we adopted the repeatable approach, we would gain a lower project cost, shorter build time and operational efficiencies as well
>
> **Richard Mundon**
> Director of strategy
> **WWL NHS Foundation Trust**

which is invaluable. If you have an emergency, it's really easy for the team to access the equipment they need with minimum delay, and while we protect privacy we also enable excellent observation and lines of sight so that colleagues can become aware of issues much earlier and find solutions in a more easily collaborative way."

Staff enjoy the repeatability concept, Gambhir adds, because it enhances team spirit: "Particularly in our new theatres, it breaks down silos and promotes cross-team working, and that means staff are much happier and the patient benefits from that. Plus, some forms of learning happen naturally in an experiential environment rather than in a separate teaching environment. So we're promoting a skilled staff base and developing their clinical expertise as they work. That enhances patient safety, job satisfaction and excellent clinical standards."

Chris Knights says that staff response to the new facility, and to the repeatability concept, has been "massively positive". "I regularly have members of staff stopping me in the corridors to say what a fantastic facility this is," he says. "They like many things about it, but one thing that always gets mentioned is the tranquility of the environment. Because we have 50% single rooms, with so many patients having their own space and en-suite facilities, the amount of nurse calls has reduced by as much as 80%." Knights also says that the Trust will increase surgical throughput when the new facilities are fully integrated with administration procedures: "The surgeons are very keen to increase the

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> **Anil Gambhir**
> Divisional medical director
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numbers of patients they can treat, and with the repeatable concept in use across our barn theatre, that becomes possible without compromising patient safety in any way. So we will decrease our surgical downtime and give more patients a better experience by using the repeatable concept."

At WWL, Trust staff are keen to share their experience and to help build an evidence base demonstrating the benefits of repeatability. "We will make our knowledge and our outcomes available

to any Trust who wants to go forward with the Repeatable Rooms and Standardised Components programme," says Richard Mundon. And Chris Knights is clear that the Trust will use repeatable concepts in the further phases of its remodelling programme: "We knew we'd get benefits. But the benefits we've had have been excellent and ongoing, and some of them we hadn't really predicted. There are strong positive reasons, both clinically and operationally, to actively incorporate standardisation and repeatability in our forward programme – it chimes one hundred per cent with our core values as a Trust." ●

◁ *The repeatable single room with outboard en-suite at Wrightington*

▽ *The repeatable multi-bed bay in cruciform shape with integrated en-suite at Wrightington*