

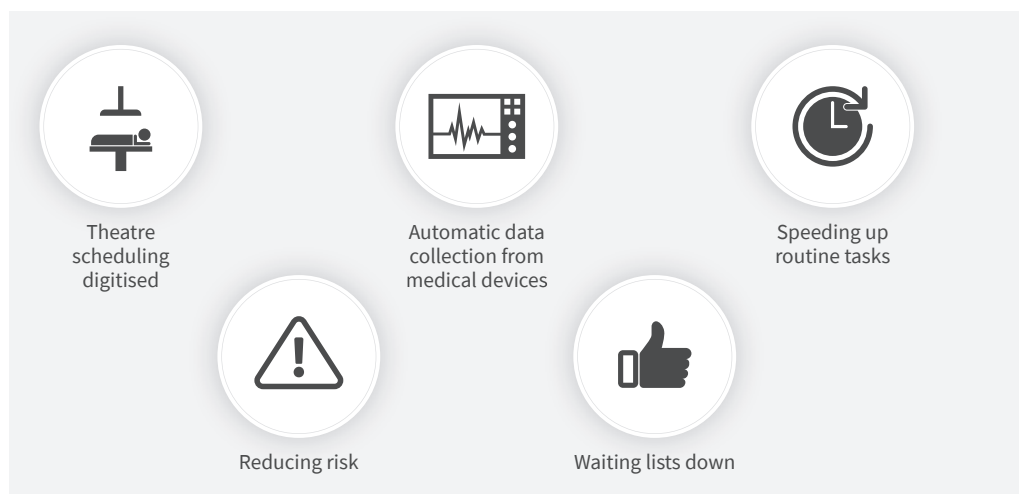


Digital theatre transformation at Tallaght University Hospital in Dublin

When unscheduled care requirements from the Emergency Department started putting pressure on the scheduled surgery day ward, Tallaght University Hospital (TUH) had to think of an innovative solution. The answer was a new, standalone day-surgery centre, outside the walls of the Hospital in a converted office building, which had a clear focus on bringing down patient waiting lists by separating acute and elective care.

As one of Ireland's largest acute teaching hospitals with a progressive reputation, it is also rolling out a pioneering digital transformation initiative aimed at further improving the quality of patient care by enhancing the efficiency of all people and processes in the Hospital environment. This is being powered by a new, integrated Electronic Patient Record (EPR) project called Synergy that draws together individual best-in-class clinical information management systems layered under an EPR interface, rather than a single vendor solution.

This digitisation strategy will enable the operating theatre environment to use its existing ICT investment and to enhance the systems currently in place. It involves fully digitising 4 new operating theatres created at the Reeves Day Surgery Centre, and the 12 main Hospital operating theatres.



Specialist clinical information systems layered under an EPR

Working in partnership with Oxygen Care, the Hospital upgraded to GE Healthcare's Centricity™ Opera operating theatre management solution and Centricity™ High Acuity Anaesthesia. Both systems are designed to improve efficiency and productivity in the surgical care environment by digitising manual tasks. This includes theatre slot and appointment scheduling to maximise room and staffing resources, plus the automatic collection of patient data from medical devices to speed up routine tasks and reduce the risk of human errors or the misinterpretation of hand-written notes.

“We wanted to work with our existing ICT investments and plug gaps with best-in-class clinical systems, rather than do a ‘rip and replace’ across the Hospital’s digital infrastructure. These specialist solutions are then interfaced to the overall EPR platform,” states David Wall, Chief Information Officer at TUH. “This approach meant that we could upgrade to the full functionality of the Centricity system in the operating theatre environment – the first hospital in Ireland to achieve this – and it also enabled us to continue working successfully with our proven and trusted existing ICT partners. We felt this was an essential part in achieving digital-enabled care.”

People Caring for People
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A phased approach to digital go-live

The first phase of the operating theatre digital transformation dovetailed to the forward-thinking project of creating a standalone day-surgery centre away from the main hospital and closer to the community. The Reeves Day Surgery Centre opened in December 2020 and its digitisation was a phased approach across the four elective surgery theatres and 25 recovery beds.

“We wanted to avoid a big bang to the digital overhaul, so we phased the approach theatre-by-theatre in the surgery hub. This enabled us to test implementation and training processes, while giving us greater confidence in a smooth digital roll out to the 12 main hospital theatres,” continues David Wall.

Clinical efficiencies created from real-time information

“Theatre digitisation has given us day-to-day certainty,” states Shane Russell, Chief Operations Officer at TUH. “For example, anaesthetists are reluctant to put people to sleep without a complete case history in front of them, to see a full picture of drugs, complications, allergies and so on. Previously, these historical anaesthetic records were paper based and sometimes

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Shane Russell, Chief Operations Officer at Tallaght University Hospital

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stored off site, which could result in delays retrieving them. Now, the files can be pulled up immediately via Centricity”.

“The key focus for us is about recovering our waiting lists and being ready for the future of healthcare – we are getting there with long waiting, day-case patients down by 67% in first year already. Centricity Opera gives us intelligent theatre management that helps to maximise surgical occupancy to power productivity. Over time, it learns how long a surgeon needs for particular procedures to enable accurate scheduling, which when applied across 16 theatres is hugely valuable for fitting in more patients and maximising our surgeon resources,” Shane Russell continues.

“TUH has a strong tradition of being innovative and progressive, with regard to day case surgery. However, increasing pressures from ED meant that we were not able to facilitate the number of beds for day case surgery. There was huge pressure to maximise theatre slots and streamline the booking process. As we progress, we hope to see the benefits of digitisation and respond to the data generated to further streamline our processes. It has also enabled us to have access to historical anaesthetic records an important patient safety measure as well as supporting research,” states Ms. Bridget Egan, Perioperative Clinical Director and Consultant Vascular Surgeon at TUH.



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Working in local partnership for productivity

The digital operating theatre and anaesthesia management systems were part of a wider strategy at TUH that dovetails to national Sláintecare health strategies to transform Ireland’s healthcare services.

“Introducing an EPR can be daunting and every hospital has its own nuances, but working closely with existing partners has enabled us to collaborate closely to achieve quick results,” adds David Wall, CIO at TUH. “We have a long relationship with Oxygen Care and GE Healthcare, and it has helped that everyone brings a different set of skills to the table.”

Stephen Nicholson, IT Services Manager at Oxygen Care states, “The TUH project has been testimony to working closely with existing partners based in Ireland and utilising best-in-breed ICT systems that are tested and deployed globally. We pride ourselves on long-lasting hospital customer relationships that can expand and evolve as and when strategy or clinical needs dictate. We look forward to guiding TUH to full theatre digitisation by the end of 2022 and working on new medical specialty IT projects in the future.”



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