

UZ Leuven: OctopUZ for patient care

How replacing a call bell became a solution that reaches beyond hospital walls

Being hospitalised can be frightening, even in the best of situations. The role of nurses in the care and comfort of patients is absolutely critical. As each nurse is responsible for several patients across multiple rooms, call systems allow patients to call a nurse for help –whether for a serious medical problem, or just for a glass of water. When UZ Leuven determined it was time to change its old, outdated call system, it took the opportunity to replace it with a top of the line solution. Called octopUZ, it does a lot more than ring a bell – for both patients and nurses.



Bart Van den Bosch, CIO UZ Leuven, presented this case at the Datanews/BELTUG Summit on 14 October, 2010

CHALLENGES

Simple call system promotes inefficiency

With the simple, traditional nurse call system, the patient presses a button and a light lights up outside the door. In some systems, lights also appear in other patients' rooms, so a busy nurse can see she is needed elsewhere. But there is no indication of the priority—serious trouble, like shortness of breath or pain, or a simpler need, such as water or a vase for flowers. Some tasks require a registered nurse, while others can be handled by an assistant. UZ Leuven knew a more advanced system could greatly improve organisational efficiency – so key for both financial stability and patient care.

UZ Leuven also had a more immediate problem with the existing system: the frequencies used were no longer suitable for the hospital environment, but the system couldn't be updated. Replacing the system was necessary, and offered an opportunity to go much further. But any solution had to meet specific hospital needs, such as hygiene. Furthermore, "we decided that if we were to invest in a new system, we wanted to use it for several things" explains Bart.

“What started out as a simple replacement of a bell system became a solution with tentacles reaching to media, information delivery, the patient – and, of course, a sophisticated nurse call system.”

Bart Van den Bosch, CIO UZ Leuven



UZ Leuven – the Leuven University Hospital – provides care to day and hospitalised patients across 5 sites: Gasthuisberg, Lubbeek, Pellenberg, Sint-Pieter and Sint-Rafaël. Its 8,742 staff members are responsible for the 1,955 hospital beds. In 2009, it counted 64,930 hospitalisation admissions and more than 100,000 day admissions, with a total of 620,763 consultations. As Bart explains, IT is an important differentiator for hospitals. “We are information companies: we diagnose health problems and tell patients to take medication, for example. But we don’t manufacture the pills, or anything else.”

UZ Leuven has developed a KWS ecosystem that includes the KWS clinical workstation system itself, LISA – which allows authorised physicians outside the hospital to access patient data – and MyUZ, an interactive web-enabled application for patients.

SOLUTIONS

KISS: Keep it simple, but increase the scope

The solution was a bedside touch screen monitor that could be used both by patients and nurses. Keyboards do not meet hospital hygiene needs, so touch screens had to be very simple to use, with limited commands. After visiting several hospitals to see their systems, UZ Leuven chose Nextel as an integrator for putting together its own system. “As a university hospital, we want to innovate, and not depend on other companies. We were impressed with Nextel’s knowledge of hospital call systems.”

The system has simple onscreen buttons the patient can use to call the nurse or operate the television, for example. The nurse can indicate that she has given the patient medication, or note specific values such as temperature, blood pressure and pulse.

The monitors are being phased in, as the wards must be shut down during installation. The system can also be integrated with the hospital’s other IT systems.

LESSONS LEARNT

No limits: innovating creates endless opportunities

“Our ultimate goal is to have a single clinical workstation, with everything hooked in through different user interfaces. The potential is endless! We also want to use octopUZ to teach people how to use MyUZ.” MyUZ is a web application used by the patient that gives pre- and post-stay information, allowing the hospital to better manage care throughout the process. Bart comments that implementing such a far-reaching solution slowed the process and increased the budget, “but it was worth it. Our patients will be more comfortable and better informed, making them more compliant with care instructions.” Plus, the system has resulted in a KWS that can be implemented in other hospitals. “This will all lead to better patient care, ideally wherever the patient is.”