



Integrating now for the future

South Karelia Central Hospital in Finland successfully completes implementation of Centricity Opera and Centricity Anaesthesia

South Karelia Central Hospital in Lappeenranta, Finland, is a district hospital serving a population of 135,000 including specialty services for paediatric, cardiac, renal and oncology patients. As part of a substantial redevelopment programme for its surgical facilities, the hospital chose GE Healthcare's Centricity™ Opera and Centricity Anaesthesia software solutions to update the existing infrastructure and improve workflow efficiency in the department. Jussi Laari, Anaesthesia Nurse and Clinical Project Manager, explained: "Our surgical department performs around 8,725 general procedures a year. We have one major operating room (OR) that is open 24 hours, every day of the week, plus nine theatres in the main department, five in day surgery and two dedicated to eye surgery."

Preparing for the future

"Throughout Europe, the population is ageing; we're all living longer. There are fewer people of working age and more pensioners, and the healthcare systems have to adapt to cope with the inevitable increase in workload. For our surgical department, that means becoming more productive and efficient, but without incurring higher costs. Our existing IT system was very old – in use since 1985 – and we wanted to create a system that had more transparency that would improve the efficiency of the department, and help us manage our workload more effectively."



South Karelia Central Hospital in Lappeenranta, Finland.

Successful implementation of GE's state-of-the-art IT solution in South Karelia Central Hospital's OR and anaesthesia departments provided:

- integration with all key hospital IT systems via 15 independent interfaces;
- rapid adoption through 10 super-users, who shared role-specific knowledge with their colleagues;
- efficient collection of patient data to help inform clinical decisions;
- improved patient safety and reduced errors by avoiding manual data entry;
- support for 8,750 surgeries annually across 10 operating rooms and 5 day surgery rooms

Making a choice

With standard practice, the hospital prepared a rigorous tender detailing all its technical and functional requirements for a new surgical IT system, and looked at three providers in depth. Toni Suihko, Chief Information Officer explained: “It was important for us to choose a system that was already working well in another Finnish hospital, so that we could be sure it would achieve what we expected. We needed a flexible system that would work alongside our hospital information system Effica, as well as with laboratory and radiological systems already in place. We also included a clause within the tender that the preferred provider would implement the third party Gemini system (CGI) for managing surgical instruments. GE was the only provider to meet all these criteria to our satisfaction, and offered a complete service from start to finish, from patients coming into the hospital, through anaesthesia and surgery, to final reporting.”

Successful system integration

“We discussed and agreed our requirements with GE in great detail before the project implementation even began; we developed an excellent understanding between everyone involved and, as a result, the installation ran according to plan, with only a few challenges along the way that could only be expected with a project of this size and complexity.”

Technical Project Manager Petri Ketonen worked closely with the GE support team and was pleased that the installation was straightforward and quick: “The GE team was obviously experienced in this kind of project, but this would be the first occasion when all three modules – Opera, Centricity Anaesthesia and Gemini – had been integrated at the same time. Nevertheless, they knew what they were doing and the whole operation was handled very well. The project was very well-planned and structured into six phases, starting with the critical stages that needed to be in place for the systems to be in everyday use. For the first two weeks of the systems going live, we reduced our daily working theatres by two to help the general logistics.” The 15 interfaces necessary for the whole implementation were prioritised at the start of the project in order to effectively manage time and resources. The most important stages were implemented first, creating a live and operational system for the main workflow, followed by additional interfaces that could be implemented, tested and gradually added to the infrastructure.



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Toni Suihko, Chief Information Officer

Rapid adoption

With so many new systems being implemented in the surgical department at once, there was a lot for all the team members to learn. Jussi described the very effective approach they took: “We identified and trained 10 super-users, each covering a particular role in the department – an anaesthesia nurse, an anaesthesia doctor, an OR nurse, reception worker, secretary, theatre assistant, etc. Each super-user was responsible for training their own colleagues, which worked very well; every role within the department uses the software in a slightly different way, and so the training was very specific to each role.”

Modernising workflow

From the start, day-to-day operation was profoundly different, as Toni described: “The data that we had been collecting with our earlier system was very limited and, in contrast, we are recording so much more with Centricity, as well as managing, planning and booking surgery times. Both Opera and Centricity Anaesthesia, with its touchscreen control, are easy and intuitive to use. Centricity Anaesthesia now maintains and stores a detailed account of every surgical procedure, then generates a summary which is sent through the interface to the medical records held in Effica. From there it will also soon be connected to a new national archive that we will connect to by the end of 2014.”

Seppo Mustola, Head of Anaesthesia and clinical lead for the project, is very happy with the level of patient safety that the new system has achieved: “Centricity Anaesthesia in particular is working well for us clinically; it has improved patient safety, saves staff time in documenting everything and we are no longer cluttered by paper everywhere. Accurate data from each procedure is collected automatically, and minimises the possibility of mistakes from things being recorded wrongly or misread, which can be a potential problem in a busy theatre environment. Our dedicated super-user helped the nurses to learn the system quickly and thoroughly before implementation, and they are very happy with it. Our corresponding University Hospital in Helsinki also uses both GE systems, which is very helpful when patients, their personal details and medical history are transferred.”

Looking forward to improved productivity

Jussi concluded: “The project has worked very well, we worked closely with GE and we love the transparency of our new system – it is very easy to see clearly how each day is going. We are close to fully completing integration of all our internal protocols and equipment and, once everything is in place and staff have become accustomed to so many recent changes, we are confident of reaching our goal of performing one extra surgical procedure every day.”



left to right: Jussi Laari, Seppo Mustola and Petri Ketonen

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Jussi Laari, Anaesthesia Nurse and Clinical Project Manager

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