



Centricity™ Cardio Workflow provides a flexible and efficient data mining and reporting tool for clinical and research cardiology applications

Onze-Lieve-Vrouwziekenhuis, Aalst

Onze-Lieve-Vrouwziekenhuis (OLV) in Aalst is one of the largest non-university hospitals in Flanders, with more than 90,000 admissions per year. The Hartcentrum at OLV represents almost a fifth of the hospital's total activity, and is one of the largest specialist cardiac units in Belgium, employing over 30 cardiologists and cardiovascular surgeons, and serving more than 5,400 inpatients and 3,600 day patients every year. The heart centre has expertise in all areas of cardiology and cardiovascular surgery, and also enjoys a solid international reputation in the field of medical education and scientific research, especially in the fields of interventional cardiology and arrhythmias. In June 2016, the hospital gained Joint Commission International accreditation.

In 2009, the building of a completely new cardiology block signalled a new relationship between OLV and GE Healthcare, with the deployment of a flexible IT system that has evolved with the department's changing needs, and provides a reliable hub of patient data to support clinical trials and evidence-based medicine.

In summary:

- One of the largest specialist cardiac units in Belgium
- 30 cardiologists and cardiovascular surgeons serving over 5,400 inpatients and 3,600 day patients a year
- Five cath labs, more than 6,000 cardiology procedures and 26,911 echocardiograms performed in 2015
- Development of a flexible IT system that evolves with changing needs
- Compatibility with hospital electronic patient record (EPR) and local database systems
- Efficient searching capabilities for clinical and research analysis and planning
- Responsive service and an excellent working relationship



A trusted partner for the future

In 2009, GE Healthcare was chosen as the preferred vendor to supply the hospital with a comprehensive range of imaging, ECG and anaesthesiology equipment. The choice of a single supplier was an important factor, giving the hospital one contact for everything and ensuring complete traceability of patient information. At first, a CARDDAS reporting software system was installed – an embedded system with workflows, a scheduler and an inventory system that had a hugely positive impact on patient care. In collaboration with staff in the cardiology department, the system has evolved over a seven-year period as the department's needs have changed, and Centricity Cardio Workflow is now in place to manage cardiovascular workflow and reporting.



Goedele Antonissen, Information and Communications Technology (ICT) Director

“The implementation and support from GE has been very good, and the team continues to work well together. I think this is largely because we talk first about functionality rather than technical issues, and because the company is fully aware of the hospital's plans and the goals we are working towards. From our perspective, it is important to be able to work well together with a company that is staying at the forefront of market developments, and that we can collectively solve any challenges that arise.”

A flexible solution for a changing landscape

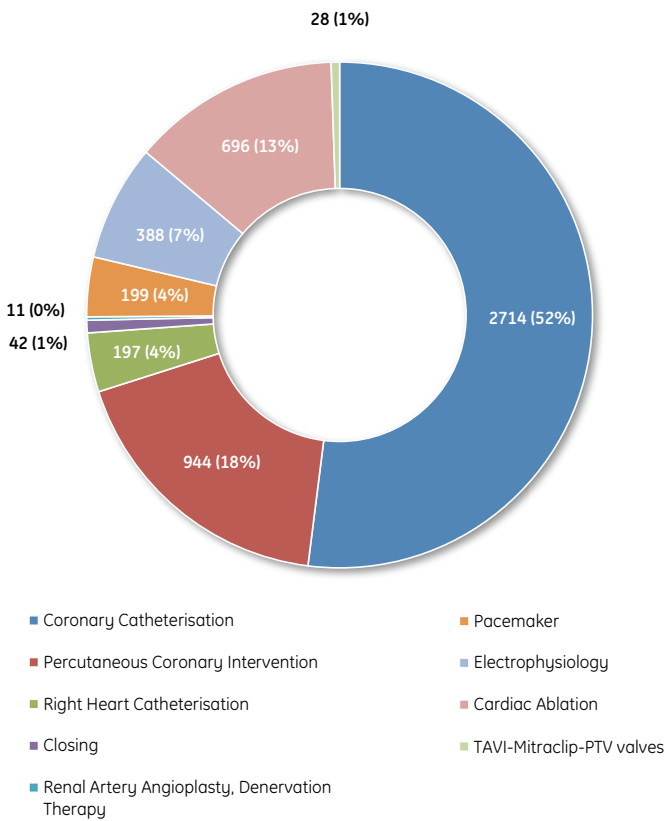
In 2014 all patient records were centralised into a bespoke EPR system. It was important that data from this system could interface with the Centricity Cardio Workflow reporting software to avoid gaps in patient records and to enhance analytics reporting. Today, patient appointments are booked through the EPR, and data flows into Centricity Cardio workflow to generate the procedure worklist for a specific procedure, for example, echocardiograms. The structured data from each (echo) exam is then imported into Centricity Cardio Workflow, allowing the clinician to open the report and complete the findings for that patient. The resulting report then flows back into the bespoke EPR, giving patient file access to fellow colleagues, including anaesthetists.

Olivier Nelis, Cathlab Medical Technical Department (MTD)

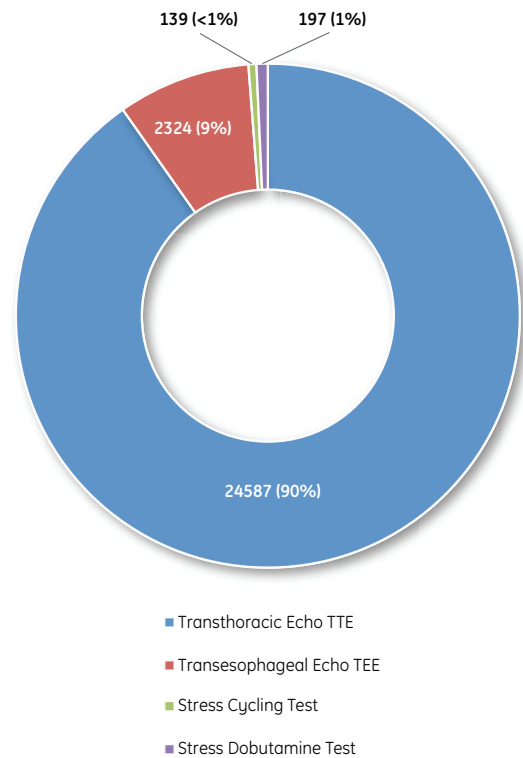
“As the system administrator, for me the current Centricity Cardio Workflow system allows faster reporting and easier generation of structured tailored reports, and this, in turn, means the department can perform more procedures. As well as routine procedures, our hospital can be involved in up to 100 clinical trials, and Centricity Cardio Workflow allows me to develop data reports so that clinicians can provide the right data and make informed decisions in these trials. In this way, the overall view of Centricity Cardio Workflow as a clinical data source has changed over time; in the past it was considered only a reporting tool. Today, because of its added functionality, it is also used for reporting regulatory affairs, for extracting clinical data for research studies, and for general patient data enquiries.”



Cardiology procedures by type 2015



Echocardiograms (ECG) by type 2015



Better data handling improves research and patient care

From a clinical point of view, echo protocols have been organised intuitively, for example, for the valve clinics, where the full patient history is readily available from the EPR through Centricity Cardio Workflow, enabling faster, better-informed treatment decisions and following the hospital's culture of evidence-based medicine. Using Centricity Cardio Workflow, the department has created an excellent patient database, which can be searched under different criteria to highlight patient groups or pathologies for education purposes or future research projects. This has provided an ideal discussion tool for cardiologists to share case studies with their colleagues and it's now far easier to quickly get a thorough clinical overview of all patients seen in Aalst and its two satellite campuses.



Dr Guy van Camp, Cardiologist and Joint Head of Echocardiology

"Centricity Cardio Workflow gives us a huge, complete database of our patients and, from a scientific point of view, this is an enormous bonus. I personally am convinced that valvulopathies are becoming increasingly important in the practice of cardiologists all over the world. The population is growing older and we are having more success with valve surgery and with percutaneous interventional techniques. The number of patients with valve disease will only increase."

"Aalst has an excellent reputation for surgical intervention of valvular disease and for interventional cardiology. Having a database for these patients with valvular heart disease is clinically and scientifically important. Centricity Cardio Workflow is an important tool for the hospital, not only for quality control, but also for education and to help us to identify the most important areas for future research. Many of my colleagues in other hospitals envy our system."

A data-led future

Centricity Cardio Workflow software solution has adapted over the years to meet Aalst's changing data needs, evolving from an exam reporting tool to a more sophisticated clinical data retrieval system, and allowing multiple, tailored options for meeting clinical, regulatory and research requirements. Access to the right data at the right time means faster and accurate reporting, and leads to an overall increase in the number of procedures performed. At the same time, clinicians can make data-informed decisions on medication and follow-up treatments. As healthcare providers move more towards evidence-based medicine, access to good quality clinical data becomes ever more important.