Pattison Outpatient Care and Surgery Centre

GE Healthcare imaging equipment and enterprise project management help new outpatient centre achieve operational readiness
The new $237 million Jim Pattison Outpatient Care and Surgery Centre, which serves Surrey and the Fraser Valley, is the first facility of its kind in British Columbia, offering an integrated and seamless network of outpatient healthcare services under one roof.

The Outpatient Centre is expected to receive more than 450,000 visits a year, including most of the 134,000 outpatient clinic visits and 94,000 outpatient diagnostic procedures that take place each year at nearby Surrey Memorial Hospital (SMH). It will provide a full range of scheduled outpatient services, including day surgery, diagnostic services and specialized health clinics.

CHALLENGE

The Outpatient Centre was specifically designed to be patient-centred and optimized for improved patient flow and more efficient operations. For Surrey Memorial Hospital, moving a large volume of ambulatory outpatient procedures from numerous clinics and services within its acute care setting to a facility such as this would provide numerous benefits for patients, primarily relieving the congestion in acute care, to help reduce patient wait times. In addition, patients would also benefit from the convenient proximity and additional services within the new centre.

An integral part of that strategy was the recognition that including ample new, state-of-the-art medical imaging equipment and streamlined workflow processes would be critical to achieving the best possible patient experience. However, Fraser Health faced the difficult challenge of how to plan, design, build and operationalize such an imaging environment on budget and within extremely tight timelines dictated by the Public-Private Partnership (P3) agreement set up to build and manage the new Outpatient Centre. Responsibility for this fell to the Medical Imaging Department at Surrey Memorial, which would also handle any required equipment and process upgrades within Surrey Memorial’s existing imaging department.

“It was decided that Medical imaging would be one service across both sites, with shared staff, in order to make best use of the skills and experience of existing staff and allow them to maintain both their outpatient and acute care skills,” explains Sandra Sewell, Director of Medical Imaging at Surrey Memorial Hospital.

SOLUTION

To select a partner to provide the equipment for the many imaging modalities involved – MRI, CT, X-ray, Angiography, Mammography, Nuclear Medicine, etc. – Fraser Health Medical Imaging (MI) issued a Request for Proposals (RFP). After reviewing proposals, receiving presentations, participating in product demonstrations, visiting customer reference sites and conducting technical product evaluations, a selection team chose GE Healthcare from among Canada’s leading imaging vendors to provide the majority of the equipment for the new Outpatient Centre.

“We selected GE Healthcare based on the technical merits of their products and solution offering within their Outpatient Centre proposal,” states Sewell.

Sewell was part of the selection team, which consisted of an overall steering committee, focused mainly on financial and value-add components of the bids, and a technical evaluation team. The technical team reviewed the RFP technical responses, participated in the demos and site visits, and then made recommendations to the steering committee regarding technical compliance and product selection.

Enterprise Project Management Tops Value-Add List

As part of its winning proposal, GE Healthcare assigned an Enterprise Project Manager as the single point of project management responsibility to orchestrate not only the delivery, installation, acceptance testing and user training for all GE Healthcare equipment, but also for any imaging equipment from other vendors going into the Outpatient Centre.

This ensured a consistent approach across all modalities and was an important consideration for a P3 project, where very stringent rules and timelines must be followed and where operational readiness is critically dependent on the timely coordination of product mechanical, electrical and structural requirements and delivery schedules with the building contractor.

“It was a huge benefit to have a single point of contact handle the complex logistics and coordinate the ongoing discussions amongst the P3 partners required to get all the imaging equipment installed and commissioned and get users trained and ready to go by opening day,” says Sewell.

One of the value-add offerings that the selection committee found creative and compelling when reviewing GE Healthcare’s bid was the proposed approach to user training. GE Healthcare’s product training program, normally delivered in Wisconsin, would instead be brought to the Outpatient Centre and SMH. GE Healthcare also offered to open up the training program to include medical imaging staff from across the 11 other Fraser Health hospital sites who would benefit from this training or from refresher courses.

“We had to keep our acute care site running, which was bursting at the seams, so we were delighted to be able to deliver user training locally and not have staff go away for courses,” says Sewell.

Pointing out that they were also looking to deliver imaging services at the Outpatient Centre in a very different way and redesign existing processes at Surrey Memorial, Sewell explains that, “The GE Healthcare proposal included a number of professional services offerings from GE Healthcare’s Performance Solutions group that would help us achieve those goals.”
Wide-Bore MRI Leads Product Lineup at Pattison Centre

GE Healthcare worked closely with its Fraser Health clinical partners to ensure the finest GE Healthcare imaging solutions were delivered to support the Outpatient Centre’s patient-centred vision, including GE Healthcare’s Optima™ MR450w MRI, Discovery™ CT750 HD, Lightspeed™ VCT volume CT scanner, three Discovery™ XR650 Digital Radiography units, two Definium™ AMX 700 Digital Mobile X-ray units, four OEC 9900 Elite™ C-Arms, three Senographe Essential™ mammography units, two Prodigy Advance™ units for bone densitometry and 13 ultrasound units.

Of particular note is the first Canadian installation of the innovative wide-bore Optima™ MR450w MRI, featuring a 70 cm opening versus the more common 60 cm opening. It offers greater patient comfort and extends the availability of MR imaging at the Outpatient Centre to a wider patient population.

The Discovery™ CT750 HD also represents the latest in GE Healthcare CT imaging technology with up to 50% lower dose—and with high-definition image quality across all anatomies—the Discovery™ CT750 HD can reach any part of the body, any age patient, and across applications that demand the leading edge of low dose CT.

Other GE Healthcare equipment installed at the Outpatient Centre includes: two CASE™ Cardiac Testing Systems, with treadmills, and three MACTM 5500 Resting ECG systems for Diagnostic Cardiology; six GE Aisys™ Carestations™ for anesthesia delivery and physiological monitoring in the operating rooms; 70 CARESCAPE™ vital signs monitors; and, somewhat new for Fraser Health, GE Healthcare’s Centricity™ Perinatal system, which allows continuity of care for patients visiting the Maternal Health unit at the Outpatient Centre and having their babies delivered at Surrey Memorial.

Training Key to Operational Readiness

A successful training program for technologists and radiologists/physicians was critical to achieving operational readiness at the new Outpatient Centre. In keeping with GE Healthcare’s Enterprise Project Management approach, a GE Healthcare training coordinator was the single point of contact for orchestrating the planning, scheduling and timely delivery of training for all equipment, including equipment from other vendors. This included scheduling the availability of staff and making arrangements with numerous GE Healthcare Clinical Application Specialists, as well as those from the other vendors, who would actually conduct the training. The result was a 95% participation rate – 100% in those cases where absolutely required – and even after the go-live date, the GE Healthcare Application Specialists remained available for an additional nine days to support the MI staff.

“The reason the training was so successful was because GE Healthcare recognized that our operation doesn’t just run from Monday to Friday, 8:00 o’clock to 4:00 o’clock,” suggests Sewell, adding that, “They were flexible and willing to meet our needs with a training and support plan that spanned all the days and hours of the week in order to cover the necessary staff, while minimizing disruption at the Surrey site.”

Training was only one aspect of how GE Healthcare contributed to operational readiness. Coordinating with the building contractor for the fitting-out of the MI rooms and the timely arrival and installation of the equipment were also critical steps requiring heavy involvement and orchestration on GE Healthcare’s part. And after the equipment was installed, the GE Healthcare team worked closely with Surrey Memorial and Outpatient Centre groups such as MI, Informatics and Biomedical Engineering, for example, to calibrate and configure the imaging equipment consistent with how equipment is set up at Surrey Memorial and to ensure that each modality was networked and integrated with Fraser Health’s central Picture Archiving and Communication System (PACS) so that patient images can be properly stored and retrieved.

GE Healthcare Uses LEAN to Tackle Patient Flow Transformation

A key value-add component of the GE Healthcare proposal Surrey Memorial MI made extensive use of was GE Healthcare’s Performance Solutions consulting services group. Through the use of Lean Six Sigma methodologies and GE Healthcare’s Change Acceleration Process™, the Performance Solutions team provides clinical process and workflow redesign, as well as training in Lean practices.

“We wanted help with medical imaging workflow transformation and with equipment and resource optimization so we could deliver a different service model at the Outpatient Centre and re-engineer the services in use at the SMH site,” explains Sewell, citing as an example some issues with ultrasound registration and scheduling that caused SMH patients to present at the Emergency Department as a means of getting around wait lists. Performance Solutions helped to develop a new approach to scheduling patients that eliminated the booking wait list. “We were able to take that new practice with us to the new facility and apply it to registration generally for all of our various services,” reports Sewell.

In similar fashion, GE Healthcare was able to help Sewell’s team use Lean techniques to resolve workflow and process design issues for numerous other focus areas, including: optimizing the Interventional Room case mix between SMH and the Outpatient Centre; consolidating various diagnostic imaging clerical functions; introducing digital
mammography workflow as part of the new Breast Health Clinic at the Outpatient Centre; and addressing severe wait list problems for patients trying to schedule CT exams at either location.

"Without GE Healthcare Performance Solutions, we would have struggled to complete this work internally," admits Sewell. "The engagement allowed us to step back and examine our current state as well as clearly define what we wanted and needed as a future state. This created a level of engagement and ongoing conversation that enabled MI staff and physicians to explore possibilities, identify opportunities and lay the foundation for change. Although we continue to tweak the processes and workflows, these transformation initiatives were foundational to creating our vision and being able to deliver it," asserts Sewell.

GE Healthcare also provided Lean competency training to more than 20 people, including Surrey Memorial’s existing Lean “Green Belt” practitioners, as well as Change Acceleration competency building to prepare people with the tools to support change.

"From a sustainability perspective, GE Healthcare helped us ensure we did not have an ongoing dependency on third-party consulting services to continue our transformation and process redesign work," explains Sewell.

RESULTS

The new Jim Pattison Outpatient Care and Surgery Centre opened on June 1, 2011, bringing the future of healthcare to Surrey and surrounding communities and showcasing an impressive array of the latest in GE Healthcare medical imaging equipment.

"With respect to having a leading-edge vendor in each modality, the ideal vendor offers a comprehensive, integrated and aligned set of products that speak to each other and interface to our main HIS; and with GE Healthcare we have the strongest balance of all these things we could get," says Marc Pelletier, VP Clinical Operations & Strategic Planning for Fraser Health Surrey and VP for the Outpatient Centre site.

For more than 18 months – from initial design discussions through post-go-live support – as many as 60 GE Healthcare professionals supported Fraser Health staff in areas of installation, technical support, service, clinical applications, PACS, performance solutions and project management.

According to Sandra Sewell, the successful go-live for the Medical Imaging Department was a testament to GE Healthcare’s Enterprise Project Management approach, guiding all the implementation and training work done upfront. Support by GE Healthcare people also played a big role, especially Service Technicians and Application Specialists, who were highly visible for Surrey MI staff to see if they needed help throughout the go-live period and after.

"The go-live went so smoothly that we commented to the GE Healthcare people that they seemed like the Maytag guy, with nothing to do," says Sewell. "This was a reflection on all the great work that had been done by everyone on the project working collaboratively, with the same goal – getting done whatever needed to get done."

By way of example, Sewell tells how the GE Healthcare team pitched in to help distribute all the medical supplies delivered to the new site to ensure that everything was ready for opening day. Since this had nothing to do with GE Healthcare’s contracted role on the project, Sewell commented that this was not a case of vendor and employer, but rather the teams working together with a shared goal of making the opening a success.

The patient-centric design of the new Outpatient Centre has yielded many benefits related to the medical imaging environment in Surrey. For one thing, the many MI services at Surrey Memorial Hospital that are fragmented across different floors of the hospital are now integrated on a single floor at the Outpatient Centre. This model not only improves efficiency, but also enhances communications and simplifies staffing. More importantly, from the perspective of patients, it provides a ‘one-stop-shop’ where they can register and have studies done for everything at one location.

According to Pelletier, a post-occupancy review is being conducted at the Outpatient Centre – what went well relative to plan, what objectives were achieved and what things still need to be accomplished. He concludes by saying that, "We had a fantastic experience with GE Healthcare for the Abbotsford Hospital project, and they have turned out to be excellent once again."