

Mazankowski Alberta Heart Institute

Advancing Patient Wellness & Operational Efficiency with Clinical Service Line Optimization

SIEMENS

Customer: Mazankow

Mazankowski Alberta Heart Institute, Edmonton, Alberta, Canada

Challenge:

Develop a patientcentered cardiovascular center that enhanced the patient experience while optimizing workflow efficiency

Solution:

Engaged Siemens Global Solutions to evaluate and assess cardiology services as part of a clinical service line optimization solution



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"This project is about way more than building a building," says Carol Manson-McLeod, senior operating officer of Capital Health's Mazankowski Alberta Heart Institute. "It's about creating a culture. Siemens helped us achieve our desire for change."

Located in Edmonton, Alberta, Canada, the heart institute is a state-of-the-art academic health sciences center specializing in patient care, education, and research. The 360,000-sq.-ft. building features five floors devoted to a range of cardiology services and three additional floors that are shelled in for future use. At the core of this \$200 million project is one central theme: patient wellness.

With that in mind, the heart institute team decided to bring in a third-party vendor to evaluate the project's commitment to the patient experience and evaluate workflow efficiency. The Siemens Global Solutions team got the job. "We had heard about Siemens capabilities in this area," says Jitendra Prasad, senior director, Corporate Contracting Office & Supply Chain Operations. "When they came in to make their proposal, it was obvious that they were very experienced. And, they were able to demonstrate results they had achieved in previous engagements."

Encourages Staff Participation & Support

Although the building was about 60 percent complete by the time the consultants joined the project, the heart institute team wanted to be sure the building's design and workflow plans contributed positively to the patient experience, and were consistent with an overall goal of efficiency. "We were so far out from the actual move-in that people were getting a false sense of 'we'll do that later' when it came to some of the planning aspects," says Manson-McLeod. "Having the consultants come in helped our staff realize the enormity of the project and the importance for us to start concentrating on what would be most effective."

Not only did the Siemens consultants help the heart institute address workflow and efficiency issues, they also brought experience that the heart institute did not necessarily have in-house. "One of the main benefits in using an external consultant such as Siemens is the objectivity they bring to the project," says Prasad. "They have no vested interest in the final recommendations.

They also have best practice experience from all over the world and know what has and what has not worked in other jurisdictions."

As part of its Clinical Service Line Optimization process, the Siemens Global Solutions team assessed all cardiovascular services, particularly admission and registration, cardiac surgery access, and technology-enabled workflow. This included interviewing key stakeholders, observing current operations, reviewing new facility drawings and technology plans, and gathering available performance measures.

"I was new to the organization at the time and went with the consultants when they interviewed our staff," says Manson-McLeod. "Discussing the project with so many of our staff members really helped to create excitement for what could be possible. It helped them become comfortable with the changes and enabled them to be part of the change process."





"I would highly recommend the process to other facilities."



Enhancing the Patient Experience & Workflow

The Siemens consultants submitted an extensive report with 54 recommendations, one of which suggested improving privacy in a section of the ICU that was originally designed with eight open bays. As a result of the recommendation, the eight open bays will now be partially closed rooms. "We decided to make this change to the layout since it would improve infection control and patient confidentiality," says Deb Maerz, director of Projects and Planning for the University of Alberta Hospital site.

The catheterization lab's pre- and postprocedure areas were also originally designed as an open-bay concept. The Siemens team suggested adding noise reduction to enhance patient privacy. "We mocked up a design with half walls but there wasn't enough space for staff to adequately work," Maerz continues. "We decided to go with a white noise option. There will be incongruous background noise to help mask the sound." Patient flow was an additional concern. To help alleviate the need for patients to go to the heart institute main reception/ waiting area on the second floor, Siemens proposed bedside registration for same-day admits. "Siemens helped us consider how these patients move through the system," says Manson-McLeod. "We're now going to use a staff member with a traveling cart to register patients who are transferred from other facilities or directly admitted from physicians' offices."

Based on the recommendations, the heart institute will also issue coaster-type pagers for patients and families in the waiting room. Patients and family members will be able to leave the waiting room and not miss their appointments or information regarding a loved one.

In addition, structural changes were proposed for the actual patient waiting area on the second floor. "We changed the size and layout of some of the offices on this floor and moved a desk that was intended to be in the middle of the waiting area. By altering the structure slightly, we should be able to improve staff workflow," says Maerz.

"Working with the Siemens team has been very rewarding. They helped to propel us even further toward our goals."



Advantage of Third-Party Perspective

When it opens in May 2008, the heart institute will be one of the most technologically advanced heart centers in North America. Its wall of three-inch curved glass, designed to bring natural light into patient rooms, will likewise shed light on the convergence of science and medicine that will occur there—not only clinically but operationally as well. "From a building perspective, Siemens helped validate our design work," says Maerz. "We did make some changes based on their recommendations, and there was a cost associated with those changes, but we felt they were justified. The Siemens team was very knowledgeable and intuitive."

"I would highly recommend the process to other facilities. It would be ideal to bring the consultants in earlier, perhaps in the planning and design phase," agrees Manson-McLeod. "Working with the Siemens team has been very rewarding. They helped to propel us even further toward our goals."



Anticipated benefits from the Siemens recommendations:

- A positive patient experience resulting from enhanced facility design and efficient staff workflow
- Optimized cardiovascular services including admission and registration, cardiac surgery access, and technology-enabled workflow
- Improved infection control, noise reduction, and patient safety and confidentiality

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