HSC Winnipeg Women's Hospital
ON THE MOVE

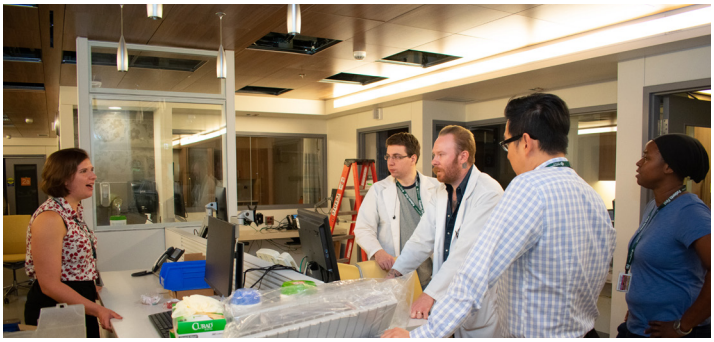
Shared health Soins communs Manitoba

Health Sciences Centre Winnipeg

10 weeks until First Patient Day

SEPTEMBER 27, 2019

From l to r: Thomas Franz, Jared Thomasson, Rudy Alwi, Rafiat Sanni, Michele Berthelette and Tidi Gaamangwe.



Members of the Clinical Engineering team problem solve in the new NICU.

Clinical Engineering team helping to support the move

If you want to see how in-demand the HSC clinical engineers and biomedical engineering technologists are right now, try visiting them at the new HSC Winnipeg Women's Hospital. Within 30-seconds of arriving in one of the new NICU pods, the team is whisked away to help troubleshoot a technical problem with the physiological monitors.

For Michele Berthelette, the regional clinical engineer supporting the Women's Health and Child Health programs, it's all part of the job of getting the new facility ready for move in on December 1.

"It's nice to be around to support the managers and educators," she says. "The medical devices to them are a tool to do their job; it's not necessarily something they want to be worrying about right now."

But worrying about those tools is the job of the clinical engineering department, which supports medical equipment at HSC. A medical device is a device that is used to treat or diagnose a patient; clinical engineering's support scope includes all electrically powered medical devices.

What that means for the new HSC Women's is that not only are there over 1,200 new medical devices that need to be inspected to make sure they are safe for use on patients, but also all of the equipment being moved over from the current buildings continue to be supported. This involves close teamwork between the clinical engineers and biomedical engineering technologists.

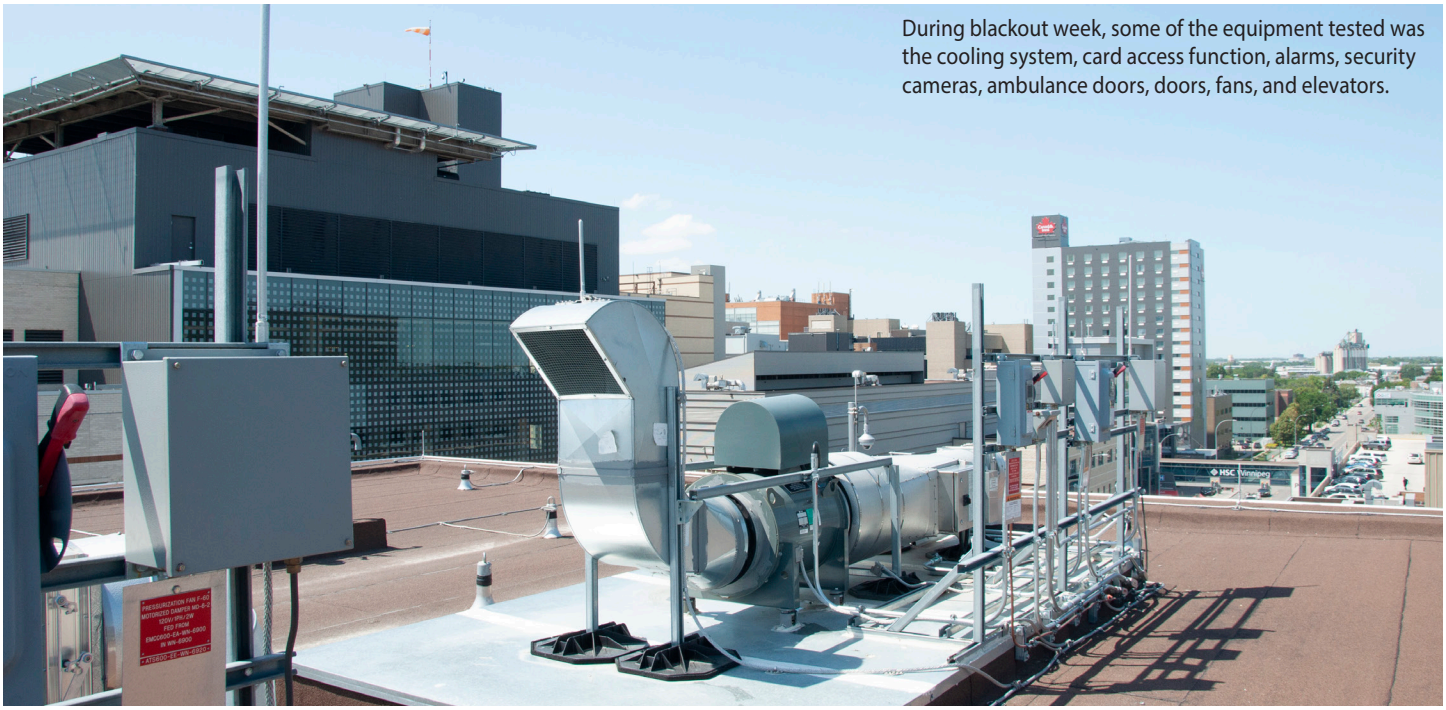
"The clinical engineer role is a little similar to that of a project manager. We're heavily involved in the planning aspects of the project and bring that information back to the team," Michele says.

The clinical engineers working on HSC Women's include Michele, Rudy Alwi, and Paul Prowse. The biomedical engineering technologists are Rafiat Sanni, Thomas Franz, and Jared Thomasson. Other team members assist with activities related to the project from time to time. Clinical engineering leadership includes Ron Laurencelle, manager of clinical engineering, and Tidi Gaamangwe, director.

"I like it, because things are always changing, so it doesn't get dull" says Jared of his role. "We're keeping up with new technology, and the vast amount of equipment we deal with keeps it interesting."

Items the team is working on include cameras and monitors in the operating rooms, medical device integration for EPR and new monitoring equipment for the NICU and Labour and Delivery (L&D).

"A lot of these changes don't seem like they would make a huge difference," Michele says, "but they add up in your day, and it makes your work a little bit easier and a little bit more efficient."



During blackout week, some of the equipment tested was the cooling system, card access function, alarms, security cameras, ambulance doors, doors, fans, and elevators.

Blackout week: testing for worst case scenarios

What happens when the critical systems that breathe life into a building are down?

This past summer, HSC's facility management team decided to do some in-house testing to find out exactly how the new HSC Winnipeg Women's Hospital at 665 William Avenue would respond under known or expected situations (like Code Blue, fire alarms or power outages) and worst case/disaster scenarios.

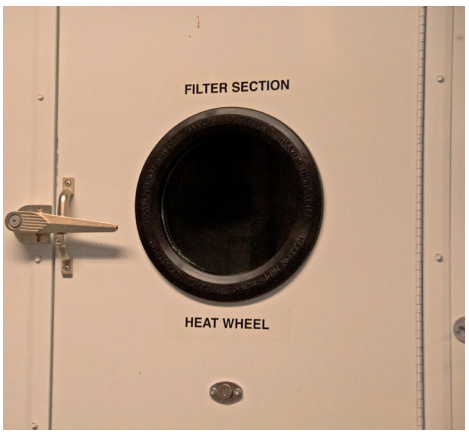
The creativity behind each test stemmed from the team's common desire to identify risks and understand how to make the building as safe as possible.

While the facility is still empty of patients and staff, "blackout week" was an excellent opportunity for the team to confirm that built-in design redundancies work as expected, or in what scenarios they fall short, thus identifying risks. This process is key to creating strong contingency plans that improve our ability to respond faster down the road.

During the first day of testing, the team placed the entire facility on emergency power (supplied by HSC generators) for eight hours. This period of time was long enough to sweep the building systems for any ambiguities in operation, and exhaust any backup battery systems in case charging systems failed. Systems and equipment that didn't respond as expected were noted, and equipment changes were made or contingencies were developed. On the following days, individual tests were run on specific systems, like the Code Blue operation of the elevators. On one extremely hot and humid day, an air handling unit of a set of two was stopped to simulate a short-term failure and repair. At 67 per cent operational capacity, the remaining air handling unit maintained a comfortable space environment. On the final day of blackout week, the team did more impromptu tests and simulated worst case scenarios by shutting off the supply of domestic water and the power source of a main hydro 12kV feeder.

At the end of each day, the team toured the facility again to troubleshoot panels or check systems with a depleted battery, which indicated that the system backup battery was not fed from emergency power, as designed.

The main air handling unit is two-stories high: Air leaves through the top section of the unit. On the inside, the heat wheel spins and preheats air in the bottom section of the unit.



The heat wheel takes the warm moist air that we're exhausting from the building and preheats the incoming cold air as an energy-saving feature.

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The quality of our team's work was held to the Fire Life Safety benchmark, a target that confirms if critical building life safety systems, such as elevators, exit doors, pressurization fans or exit lights respond as expected during an emergency power outage. Occupancy permits are granted only after achieving this benchmark.

One of the main findings was that when the entire cooling system for the communications rooms is shut off, the room temperature raises one degree per hour. In case of an emergency, maintaining electronic equipment temperature is crucial.

Now the facility management team knows with precision the time left to find alternate cooling sources before the temperature in the sensitive equipment climbs too high.

The exercise not only tested the building systems to the extreme, but also familiarized HSC facility management staff to the building operation in the worst possible conditions. Any surprises were flushed out prior to occupancy.

New equipment and furnishings being received daily

Although some existing equipment will be travelling to the new building on First Patient Day, many more pieces of new equipment and furnishings must be in place prior to December 1. The move coordinator schedules trucks for smooth transition, and also ensures the receiving area is cleared of one delivery before the next one arrives. Deliveries arrive daily: chairs, appliances, fittings, patient room furnishings, and so much more. Each item must be checked, labeled with the destination room number or area name, prepped for use, and then positioned/installed in its new home within the facility. This week capital planning was happy to welcome a Project SEARCH intern to assist with labeling, setup, and installation of many of the pieces.

Here's a sample of recently received items:

- 76 breast pumps
- 75 eliminators
- 96 beds
- 31 stretchers
- 72 of 218 linen carts
- 16 on-call beds
- 12 staxi chairs
- 40 wheelchairs

What does "clean" mean?

Cleaning in our complex hospital environment requires specialized techniques, tools and equipment. HSC's housekeeping team applies infection control and health-care grade standards to help keep patients, visitors and staff safe at work. In addition to scheduled cleaning, the department has a project staff team dedicated to thorough-clean rooms on a rotation basis and to look after unplanned, unexpected or unusual needs like floods, spills and post-construction.

HSC housekeeping provides the following cleaning services to the entire HSC campus:

Scheduled Clean

Regular cleaning is scheduled for all areas including: patient care areas, public areas, staff areas, labs, and clinics. Areas that are being used for training in the new HSC Winnipeg Women's Hospital already receive scheduled cleaning.

Project Clean

A thorough post-construction cleaning which addresses all surfaces (millwork, shelving, systems furniture, etc) is scheduled for all areas. A thorough cleaning also includes detailed measures such as cleaning the inside of each light fixture. "Project Cleaned" rooms are designated with a blue sign insert in the new facility at 665 William. These rooms are unoccupied and ready for terminal cleaning. If any work is to be carried out in a Project Clean room, appropriate infection control dust mitigation measures must be taken.

Terminal Clean

Terminal cleaning includes scheduled cleaning techniques and infection prevention and control measures. A terminal clean is completed in each room after a patient is discharged, and in other areas as needed. The new HSC Women's will require terminal cleaning of all patient care areas prior to opening on December 1, 2019. "Terminal Cleaned" rooms will be designated with a sign insert indicating the room is closed until First Patient Day. During the move housekeeping and clinical staff will also ensure every piece of equipment (including beds and bassinettes) is thoroughly wiped down before it leaves 735 Notre Dame, 840 Sherbrook and 820 Sherbrook, and again when it arrives at 665 William.

Throughout the HSC campus, and as part of the health care team, housekeeping plays an important role in infection control, patient flow, and in keeping the environment clean. We appreciate the professionalism of our housekeeping staff and their dedication to providing a safe and pleasant environment in all areas of the HSC campus!

What's happening?

For the week of September 23 to 27:

- Construction
- Electrical system shutdown
- Furniture installs

Upcoming training:

Orientation training is mandatory.
Staff will be paid to attend training.

- **September 24:**
  NICU Day 1 training
- **September 25:**
  - Deadline to request printed material
  - Meet the Genie sessions, JJ294, 11 a.m. to 1 p.m. (for medical residents)
  - NICU Day 1 training
- **September 26:**
  - NICU Day 1 training
  - Meet the Genie sessions, 603 St. Mary's Road, 9:30 a.m. to 4 p.m.
- **September 27:**
  - NICU Day 1 training
- **September 30:**
  - Women's Health Day 1 training
  - NICU Day 1 training
  - Meet the Genie Sessions, WT557

What to expect in the next issue

Learn more about the new parkade and staff parking options