

St. Joseph's integrates ED documents with EHR via scanning solution

BY DIANNE DANIEL

TORONTO – Starting this spring, St. Joseph's Health Centre, in Toronto, is making it easier for clinicians to review Emergency Department (ED) visits by patients – and they won't have to leaf through pieces of paper to do it.

As part of a multi-phase strategy to move to an integrated electronic patient record, the 376-bed community-based teaching hospital is going live with a project to make ED paper-based charts accessible on-line. The project is the result of a two-year effort and is considered a necessary interim step on the journey towards a full-fledged electronic record.

"The reason we decided to start with Emergency is it's a very centralized, focused chart," says RoseAnn Pacheco, St. Joseph's director of health records. "It is a critical department, and a lot of clinicians want to know about a patient's ED visit."

The project began with a comprehensive vendor selection process. Topping St. Joseph's list of requirements were ease of use, the ability to integrate with Allscripts' Sunrise Clinical Manager and compliance with privacy and security needs, all of which were met by Microdea Inc., of Toronto. The health centre was also pleased to work with a local vendor, says Pacheco.

Using Microdea's Synergize for Electronic Patient Records, St. Joseph's is scanning paper charts after patients are fully discharged from the Emergency Admis-

sions-Discharge-Transfer (ADT) system and then making the information available hospital-wide through the familiar Sunrise Clinical Manager interface.

Rather than learning an entirely new process, clinicians simply click on a new tab in the electronic patient record, called Scanned Documents, and can access everything to do with a patient's emergency department visit, including nurses' notes, doctors' notes, test results and consult notes.

"We want Sunrise Clinical Manager to be a one-stop shop for our end-users," notes Bohdan Sadovy, project manager at St. Joseph's. "We didn't want them to have to leave the application and log into yet another one."

Providing seamless integration with hospital information systems is one of Microdea's strengths, says Colin Ruskin, the company's vice-president of business development. "What's unique is that we're accommodating client needs with cost-effective, off the shelf software," he explains. "Synergize is highly configurable, easily deployable, and is continually evolving to meet the needs of healthcare organizations."

With 93,000 patients visiting St. Joseph's emergency department last year, the scanning effort represents a significant volume of paper that will now be accessible on-line, eliminating the need to retrieve files from Health Records. Once the information is in Synergize, Health Records has the added advantage of controlling who has access to what, as well as what they can do with it. For example, they can restrict a chart from



Team members: (l to r) Bohdan Sadovy, Irene Phillip, RoseAnn Pacheco and (seated) Divina Macapagal.

being printed, they can permit it to accept annotations, or they can lock it, making it impossible for anyone except those with authority to view it.

A web-enabled application, Synergize also syncs with the hospital network so that user names and passwords remain the same. "We wanted it to be a no-brainer; an application you'd be able to quickly figure your way around and I think we've achieved that," says Pacheco.

One of the benefits is the ease of use of the viewer, she adds, noting that the chair of St. Joseph's Health Records Committee, Dr. Arthur Vanek, was one of the first to use the custom tab during testing. "He just sat down and did it," she says. Some of the features include the ability to enlarge items, view two at a time, rotate them, invert colours or zoom in and out on different sections.

Looking ahead, Pacheco hopes to replicate the scanning process in other outpatient areas that experience high volumes, like same-day surgery. For now, Health Records has made the decision not to back-scan patient records and is working on a day-forward basis. Meanwhile, scanned charts will be boxed and kept for a period of about six months before being destroyed altogether. The ongoing effort is the first step towards full on-line patient documentation, she says.

"Scanning and making our ED charts available online to clinicians is part of the foundational work that will pave the way as we move towards a complete point of care electronic patient record. Our commitment to putting patients first has even led us to rename all this work, typically understood as "eHealth", to eCare, to better reflect how patient care will be transformed through improved processes enabled largely by technology," says Andrew Brearton, St. Joseph's chief information officer and chief of eCare. For more information about the eCare project please visit: www.stjoe.on.ca/about/ccare.php

PHOTO: ROGER HARRIS

Nunavut improves patient care with its new electronic health record

BY NEIL ZEIDENBERG

The Government of Nunavut has launched Phase I of its plan to create a territory-wide electronic health record – a project that will link all 26 of its facilities that deliver patient care.

The effort has been fuelled by a \$13.7 million investment, of which \$7.8 million was contributed by Canada Health Infoway.

There are enormous challenges in this EHR project – to start, Nunavut comprises an enormous land mass with few roads. It has shortages of doctors and nurses, and about the coldest weather in the country. Nonetheless, medical care must be delivered to 32,000 residents – come rain, sleet or snow storm.

Transportation is by snowmobile, SUV and cargo plane. "If we need to send a patient to a specialist, we have to send them by plane, which adds an incredible cost to providing healthcare services," said Martin Joy, manager, information systems, Department of Health & Social Services (DHSS).

"We're also unique in that our healthcare model is fully integrated, with all care managed by the Department of Health & Social Services (DHSS)," said Joy. "That includes public health, home care, primary care; out-patient clinics,

mental health and acute care.

In Nunavut, many communities are without a doctor – in these cases, when possible, care is often delivered by nurse practitioners.

And the satellite-based infrastructure can't sustain an electronic health record. "So the government of Nunavut is rolling out a wide-area network upgrade over the next year and a half, which coincides with deployment of the EHR," said Joy.

The aim of the Nunavut EHR project is to provide residents with a complete health record, one that follows them throughout the entire continuum of care. A Meditech health information system is being utilized, which will help track all patient data and integrate with technologies like Picture Archiving and Communication System (PACS) and diagnostic modalities such as computed radiography and computed tomography (CT).

In Phase I, existing pharmacy, laboratory, and patient registration systems were replaced and health records, territorial-wide patient scheduling, diagnostic imaging and non-medication management order entry for physicians and clinicians were implemented, in acute-care as well as in ambulatory care areas, including public health, home care, and mental health.

Workflow analysis and system build were completed by late 2010. Training began in January 2011, and the go-live of

the first four sites in Iqaluit and Cambridge Bay occurred in February, with the implementation teams working out glitches and providing ongoing support post go-live to ensure sustainability. These sites were chosen because they're the only ones that could manage the bandwidth necessary to run the EHR.

"We're connecting the hospital in Iqaluit and the two Regional Health Centres in Rankin Inlet and Cambridge Bay with the Health Centres in communities as small as 100 to 150 people, and as few as two staff nurses," said David

A Meditech solution is being used as the core electronic health record at 26 facilities delivering care.

Shearing-Wittig, senior consultant and project manager with Toronto-based Healthtech Consultants, the company hired to provide overall implementation project and change management, as well as specific subject matter expertise necessary to plan, build and roll out the applications with Nunavut's iEHR team.

As of February 7th, patient demographic information such as chart number, age and sex for the majority of the 32,000 residents had been entered into the EHR.

In phase II, scheduled to start later this year, "We'll be implementing clinical documentation, CPOE, medication management, including bedside medication verification," said Joy.

Phase II also includes full clinical documentation – prescription writing, medication management, and provider documentation. "And we'll be implementing CT and diagnostic imaging into all the communities to take advantage of the PACS," added Joy.

Staff are already starting to see some of the benefits of an electronic health record. "Clinicians in Cambridge Bay have commented on the improved access to patient information" said Terri LeFort, vice president at Healthtech Consultants. "When seeing a patient in a follow-up appointment, being able to see the previous diagnostic tests that were ordered and the results provides better clinical decision making."

And there's been a dramatic reduction in wait-times from the typical three to four weeks down to a few hours, as pointed out by Karen Shearing-Wittig, senior vice president at Healthtech Consultants. "We're seeing that it's possible to reduce the turnaround time for a DI exam from a couple of weeks to a few days. That's an excellent return on investment."

That's also an incredible achievement – in any climate.