

Pushing for integrated care

Summerville Family Health Team uses xwave technology to streamline services and push real-time patient data from Trillium Health Centre to the Summerville Electronic Medical Records.



Summerville Family Health Team is a four-site healthcare clinic whose 24 physicians provide services to upwards of 30,000 patients in the west end of Toronto and Mississauga. All Summerville physicians have privileges at the nearby 750-bed Trillium Health Centre, and refer patients to its two sites for treatment. There is a significant exchange of data between Trillium and Summerville, and while the information systems at both are considerably automated, there was, until recently, a paper divide between the two that slowed down communication and created redundancy.

“A patient goes for an X-ray at the hospital,” explained Summerville’s Dr. David Daien. “The radiologist looks at the X-ray in a digital format, dictates information into the X-ray system – then transfers the whole thing onto paper to send to the patient’s physician, who, despite having an EMR at his end, has to scan and convert the information back into some sort of digital format for electronic storage. It doesn’t make sense.”

Now, with the implementation of xwave’s clinical management system and

its integration with existing IT infrastructure at Trillium, Summerville’s four clinics receive an average of 1,700 messages from Trillium per week – everything from discharge summaries and consultation notes to pathology reports and diagnostic imaging results. All the information is digital. Dr. Daien estimates that the time spent scanning at Summerville has decreased by 50 percent.

“Part of what’s made this work so well is that it’s integrated 100 percent into our workflow,” he said. “Doctors don’t have to remember to open an application or download an update; the information is delivered directly into their EMR.”

That EMR is part of xwave’s clinical management system (CMS), the first application service provider (ASP) solution of its kind to be provincially certified and funding-eligible under Ontario’s Physician IT Program. An ASP is different in that, rather than have to purchase and manage the CMS as a stand-alone system, physicians can access it as a fully-managed, web-based service, subscribing to it on a pay-by-month basis and receiving it via a highly-secure, high-speed managed private

network – ONE Network – by Ontario’s Smart Systems for Health Agency (SSHA).

“The ASP offering is one of the reasons we chose xwave,” said Dr. Daien, adding that along with the benefits of Internet-based anytime-anywhere access made secure by SSHA, the solution’s management by xwave makes adoption and maintenance easier than it typically would be with a stand-alone EMR.

The CMS software itself is GE Healthcare’s Centricity electronic medical record (EMR) and practice management (PM) software. Centricity is used by approximately 30,000 clinicians worldwide; xwave, a Canadian healthcare solution-provider involved in a number of provincial e-Health initiatives across the country, is the first company to bring Centricity into Canada, customizing it for Ontario physicians. The solution provides users with complete patient records; multi-physician and multi-site scheduling, billing and patient registration; and, more specifically, features such as automatic drug-interaction alerts, reminders for routine screening, online health-card validation, standardized patient-encounter forms for certain chronic diseases, and customizable family health team (FHT) reporting templates. With all the doctors at Summerville FHT on staff at Trillium, they were adamant about having not only a streamlined workflow within the FHT but effective integration with the hospital systems next door.

“Part of having better care is having more integrated care,” said Dr. Daien. “We didn’t want to create electronic silos.”

Trillium had already invested in Health Information Access Layer (HIAL) infrastructure as part of its vision of a Community Care Services Model – a model that connects patients and their health records

to the health care professionals who comprise each patient's "health team." This healthcare "bus" is built to international standards such as Health Level 7 and complies with Canada Health Infoway's mandated architecture.

xwave was able to leverage this infrastructure by building an interface to it that intelligently collects and sorts information related to Summerville patients, then 'pushes' the data to the EMR in-boxes of the appropriate Summerville physicians. This compares with the alternative 'pull' model, whereby users must retrieve the information manually.

The solution is completely transparent at Trillium's end – "Staff there would never know there's been any change made," said Dr. Daien – and at Summerville information is received automatically, in real time.

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While Daien acknowledges the learning curve associated with adopting the new EMR technology, he said that the project's biggest challenge has been not the technology itself but understanding the workflow around it.

"You need to understand the lifecycle of a document," he said. Without the proper planning, physicians could, for example, receive too much information, or unnecessary multiple versions of a document. The xwave interface has been designed to gather patient data in a way that ensures Summerville physicians are getting the information they need, when they need it.

Another factor that has contributed to the success of the project is Trillium's cooperation and commitment to integrated healthcare. In 2005 Trillium launched a \$100 million, seven-year initiative called THINK – Transforming Health Care into Integrated Networks of Knowledge. The HIAL infrastructure is part of the THINKagenda.

"Once you have the core infrastructure in place, the rest becomes easier," said Benoît Long, VP, chief information officer and chief marketing officer at Trillium Health Centre. "When you've made the investment in HIAL – when you've taken that standards-based

approach – all the components are re-useable, re-deployable. There's a very high degree of interoperability."

Previously equipped with nine scheduling and billing systems and three disparate EMRs, Summerville's 24 physicians now have one system that, spanning four physical locations, manages all clinical activity. The xwave interface receives patient messages from the Trillium HIAL and maps them to the physicians' in-boxes in the Summerville EMR, automatically storing a copy of the messages directly in the patient's electronic chart. Should a patient leave the practice, Dr. Daien points out, the patient's information is no longer retrieved.

Since the project's completion, tens of thousands of messages have been relayed, dramatically improving the speed and efficiency of information delivery from one facility to the other. Summerville physicians are notified the minute their patients are admitted to Trillium and the moment they are discharged. Document travel time has been shortened from days to minutes, and the constant paper-shuffling so endemic to healthcare has been reduced.

The integration in fact has earned Trillium a Government of Ontario Merit Award; the Awards are given annually to recognize public-sector organizations and individuals for their commitment and contribution to improving public service in Ontario.

Now, said Daien, the next step is making the system bi-directional, so that Summerville can send information to the hospital, sharing patients' allergy information, problem lists and medication lists. Daien is an ardent advocate of the enabling qualities of healthcare IT, and believes that if we improve access to information, the Ontario healthcare system will improve.

"How is it that you can use the Internet to book a trip to Australia but you can't use it to book an appointment with your family doctor?" he asked rhetorically, then added, "We're now dealing with a generation of patients who are regularly using this kind of technology, and will expect that their physicians are using it too."

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New online tool helps educate students

MED2020 Healthcare Software Inc. is joining forces with the Canadian Health Information Management Association (CHIMA). MED2020 is offering an online educational tool to students in seven colleges where Health Information Management is studied. MED2020 actively fosters client knowledge via hands-on training and user forums, so helping students learn falls into that ideal. The company's flagship product, WinRecs, is used in many hospital Health Information Management (HIM) departments across Canada for abstracting and coding electronic health records. Originating in 1942, CHIMA now represents approximately 5,000 certified Health Information Management (HIM) professionals across Canada and is the professional body that recognizes and accredits all academic centres that offer Health Information Management programs.

MED2020's director of client services, Cindy O'Greysik, explained "What MED2020 has done is to modify its existing coding software into a Virtual Coding Tool that can be used online. Students will be able to access a dashboard similar to that used in a real hospital setting. They can then apply codes against examples of health records that replicate those in a health records department. We are very excited to be working with CHIMA and with colleges such as George Brown College."

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