

# Technology for Doctors

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online

## Integration

### Getting hospital reports to doctors – in three seconds

By Chan Ghosh



With a staff of 23 physicians, three nurse practitioners and various other allied health professionals, the Prince Edward Family Health Team provides primary healthcare services to just under 20,000 patients in central Ontario's Prince Edward County. Located in the town of Picton, the FHT is affiliated with Quinte Health Care Corporation, whose four hospitals extend across the region (Picton, Belleville, Trenton) and well north of it (Bancroft).

Farther east, in the city of Kingston, the Maple Family Health Team is about the same size and serves approximately 39,000 patients. Physicians at Maple are associated with Kingston General Hospital and Hotel Dieu Hospital – large, teaching facilities affiliated with Queen's University.

In both cases, there was a steady stream of paper from hospital to FHT – discharge summaries, consultation notes, pathology reports, x-ray reports – that has since been reduced to a relative trickle following the integration of the xwaveEMR systems at Maple and Prince Edward with their respective hospital information systems (HIS).

As a result, about 57 percent of the reports generated by Kingston General and Hotel Dieu are now transmitted electronically. At Quinte, the figure is 51 percent. Kingston General, for one, estimates it is sending out roughly 5,600 fewer pieces of paper per month.

And information that once took three to five days to deliver now is received in about three to five seconds.

“It's so nice to have a consultation report the same day as the consultation,” says Dr. Richard Milner, President of the Maple FHT. “And I've had many similar positive comments from colleagues.” He cites the example of discharge summaries, whereby patients who've been admitted to hospital are discharged and told to see their family doctor within a week. Previously, the follow-up visit would have involved a certain degree of diagnostic guesswork from the patient because it took weeks for the discharge summary to arrive. Now, all that information is available within minutes.

Dr. Greg Higgins of the Prince Edward Family Health Team reports similar benefits. “When the hospital reports were on paper, staff would receive them, then have me review and approve them, then scan them – all of which took several days. Now, the information is right there, accessible to everyone in the FHT who needs to see it.”

This EMR-HIS integration is the result of a joint initiative involving the two FHTs, the hospitals, the South East Local Health Integration Network (LHIN), and eHealth Ontario, which funded the project and whose secure network supports the connecting interfaces. Built by xwave, the interfaces use Health Level 7 (HL7) messages to receive, sort, and push patient information to the corresponding physician's desktop, making it automatically available without the physician having to open or check a particular application.

There's no additional training required for either FHT or hospital staff, and the systems 'speak' to one another regardless of the HIS vendor – in the case of Quinte, it's Meditech, and in Kingston, it's QuadraMed.

“We talk about having an EHR in Ontario by 2015,” says Paul McAuley, Regional CIO and eHealth Lead at the South East LHIN. “What we will have is not one system but a series of interfaces linking the various systems, with physicians' EMRs serving as the data hubs for this province-wide infrastructure.”

The front-line benefits of the integration are readily apparent: less paper-pushing, lower costs (such as postage and labour), and overall improved efficiency through the elimination of the paper divide separating two fully automated healthcare environments. From an accuracy standpoint, there is no longer the risk of error associated with transcribing paper reports into an electronic system.

Paul McAuley also points to the more strategic advantages. “The fact that FHT physicians receive hospital information almost instantly enables them to plan patient treatment in advance, which in turn helps shorten patients' hospital stays and lets them recuperate at home.”

McAuley has also had positive feedback from physicians who, having received diagnostic results sooner, are able to provide more responsive care. “One doctor emailed me to let me know that when his patient underwent some cancer-related diagnostic tests – and they came back clear – he was able to follow up with the patient before anyone else.”

The fact remains that EMR adoption in Canada still lags behind that of many other industrialized nations; according to the 2009 Commonwealth Fund International Health Policy Survey of Primary Care Physicians, 37 percent of Canadian doctors use EMRs – an increase from the 23 percent who used them in 2006 but short of countries such as Germany (72 percent), Australia (95 percent) and the U.K. (96 percent).

However, factors such as more inclusive EMR funding and a concerted focus on EMR adoption suggest that rates will continue to climb. Moreover, projects such as this integration (and a similar xwave-supported project involving Toronto's Trillium Health Centre and Summerville FHT) point to a general move away from the stand-alone EMR isolation of the 1990s to a broader regional integration.

Paul McAuley says such integration is indeed the ultimate goal, with infrastructure that not only extends across the province but also farther into the community to include, for example, Community Care Access Centres.

Says Prince Edward's Dr. Greg Higgins: “The real benefit of EMRs is having them connect to all these other systems – hospitals, labs, pharmacies. While the EMR itself offers obvious value, there's the value-add of having the automated lab reports, the e-prescribing, and so on.” He adds, “What we don't want is a series of digital islands.”

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