

Online access addresses pharmacist shortage in northern Ontario

BY NEIL ZEIDENBERG

A shortage of pharmacists in rural areas of Ontario puts patients at increased risk of prescription errors. One solution being utilized is to monitor physician drug orders remotely, using a telehealth application.

"When you think about what a pharmacist does in a hospital, the order review and checking of prescriptions, it can all be done from a distance," said Kevin McDonald, an Ottawa-based pharmacist and developer of the telepharmacy solution.

It was first implemented in March 2004 at the Weeneebayko General Hospital, in Moose Factory, a 60-bed facility near James Bay.

After receiving the physician orders, a pharmacy technician will scan the order and enter it into the system. At that point, McDonald can pick up the order by connecting to the hospital network via VPN access.

And since it's in Adobe PDF format, it's as clear as the original order. Once the order is approved by McDonald in Ottawa, it's double-checked by another technician and the labels print off.

McDonald works from a computer terminal in his home office, Monday to Friday. There, he reviews about 60 orders per day and performs interventions when necessary. Typical errors include: harmful drug interactions, duplicate drugs prescribed, or misinterpretation of an order.

"If the order is misinterpreted, patients face the possibility of harmful drug interactions," said McDonald. "That's when I'll phone the nurse or physician and clarify

things." The solution may be the only one of its kind.

McDonald says his telepharmacy application is adaptable to any size hospital. In fact, last September McDonald implemented his virtual solution at the Timmins & District Hospital (TADH), a larger community facility with 159 beds. TADH would like to have five pharmacists on staff, but they're down to about two full-time equivalents.

"Without us being there (in Timmins), pharmacists would be running around all day. But with our help, they're freed up to do other things," McDonald explained.

Lynda Dukacz, director of clinical services at TADH, has noticed the difference in her hospital.

"Because of the shortage of pharmacists, we used to have significant delays in processing orders – verification was slow, anywhere from one to two hours," said Dukacz. But with a virtual pharmacist helping to verify thousands of orders per month, "drugs can now be processed in a more timely fashion."

Northern Health doctors set the pace for EMR adoption

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of the technology has blossomed. Fifty percent of primary care practitioners in the Prince George area use an EMR, with no subsidy other than that provided by the NHA for the network infrastructure."

Dr. Clifford and his colleague, Dr. Red-



Kevin McDonald uses telehealth to check orders remotely.

path, McDonald explained that one of the drawbacks of being a virtual pharmacist is it's strictly consulting. You review hospital programs, suggest changes and help to implement those changes for the better, but it's not direct patient care. "On the other hand, this way you've got a pharmacist available all the time."

And you don't get to see physicians face-to-face and therefore can't interact

personally – it's just web-conferencing. According to Dukacz, TADH is currently working to fix that problem by creating a video link, so that the virtual pharmacist can see the techs, and if there's any questions, conversations can be held face to face.

One area they've worked to improve on is security. On that front, McDonald is looking to tap into the high-speed NORTH Network videoconferencing system, or CareConnect, depending on the hospital.

McDonald is a University of Toronto graduate, and did his residency at the Centre for Addiction and Mental Health (CAMH), followed by two years in Moose Factory. Despite moving to other hospitals such as Kingston General and The Ottawa Hospital, McDonald continued to consult in Moose Factory over the years.

The virtual pharmacist gig is a good fit, since he was already familiar with them and the issues affecting the hospital.

"You always hope that someone will come on staff, but until that time, here's something that fills their need."

path, are no doubt correct in saying the high-speed network has stimulated the rapid uptake of electronic solutions. But other areas of Canada have had this infrastructure for years, yet their physicians have been slow to adopt computerized applications.

In addition to the high-powered infra-

structure, you've got to credit the health-care leadership in Northern Health – they include Dr. Clifford, Dr. Redpath, the staff at the Northern Health authority, and CEO Malcolm Maxwell and many others – with believing in the technology and convincing physicians across the region to use it.

As well as the provincial toolkit for Chronic Disease Management, high-speed networking allows for access to tools such as UpToDate Online. Decision-support systems of this sort give rural physicians, like those in Northern B.C., a quick second-opinion on many difficult medical issues. That kind of feedback might take hours or

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