

These iPhones could save your life

Apple's popular smart phone is being used by Foothills Regional Emergency Services in Alberta to access electronic patient histories.

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An Alberta health-care organization is using iPhones to access—and, one day, update—patient data in the field to provide better care for those in an emergency.

“Often patients can’t be good historians,” said Foothills Regional Emergency Services paramedic and staff device officer Theresia Berry. “Sometimes you go to a call in a remote area, and the patient might be suffering from mental illness, dementia, advanced age, Alzheimer’s, intoxication, or a trauma or head injury.”

The paramedics can now use an iPhone to access the patient’s history, courtesy of Raven, a program from Calgary health-care integration and collaboration software vendor Coalese that was rolled out earlier this year. Next January will see the region’s health-care providers take the application bi-directional, and update information in the patient’s file that could benefit the person’s primary care. “That way, if the paramedic sees that Granny hasn’t been taking her meds or needs to note procedures done in the ambulance, the primary care physician can see that in their record right away,” said Coalese president Andrzej Taramina.

To get everyone on the right footing, paramedics and doctors from local clinics and hospitals gathered together to determine what information they needed to access on the go. “Confidentiality was one issue, but, with the iPhone, nothing is stored there. It’s the (Web-based) program that accesses the records,” she said.

Coalese had already worked with the local health-care providers on integrating their electronic medical records, and was then brought in, said Taramina. They built in role-based access management protocols to the Web-based software.

This way, home care nurses only see the medical information they need, and emergency medical teams only see the information they need (such as allergies or meds they’re on). “There’s no sense filling the device with things we don’t need, and there’s things you don’t necessarily need to see, privacy-wise,” said Berry.

Security is strengthened by two-factor authentication of a login and password used with a physical token.

The simple, text-based program was easy to use, which is key in the often tech-averse medical field. A toolbar allows the users to search by various terms, from first name to Alberta health card number. The program pulls the information from the electronic medical record system of the central clinic, the Foothills Family Medical Centre, where the program is being piloted for potential further roll-out in the Calgary Rural Primary Care Network and other healthcare regions.

It would be a good fit for rural health outposts that are often low on—or completely bereft of—IT staff. The software accesses the health information and then caches a copy on Coalesce's own hardware appliance. "The data is always kept synchronized," said Taramina. "They can search by even more specific terms here, as the XML database has very powerful queries. That way, their searching doesn't interfere (with other IT functions at the health care site itself)."

The staffers are even able to deal with areas without cellphone coverage. The paramedic teams work with the 911 operators to get as much patient information as possible so that they can pull up the correct record prior to arriving at an emergency site outside of cellphone range. Doctors, too, have been benefitting from the service, using iPhones (and other mobile devices, like laptops) to access patient records and give advice from the road. This allows the physicians to dispense advice with the full benefit of the patient's history in front of them, instead of by memory.

The iPhone itself offers a large screen with plenty of reading room via the big browsing space. It's also very cool, a factor that could speed up adoption of similar initiatives in healthcare regions across Canada, in spite of the medical industry's reluctance to embrace new technologies, said Info-Tech Research senior research analyst Mark Tauschek. "If they can have this cool device that is also quite functional, more will want to accept it," he said. "It's not just iPhones, but smartphones, too, that are exploding in the health sector.

The iPhone's fun factor could even help usher in the long-awaited age of electronic health records for all (currently, Alberta has 60 per cent saturation, and Ontario 25 per cent, with other provinces falling in between, said Taramina). Said Tauschek: "It could help move things along—if they've got the cool device to access them with."