

Kiosks a boon to triage nurses, ER patients

An EHR success story

While many Canadians are familiar with using electronic kiosks to check in at airlines or do their banking, a groundbreaking project starting this month on both campuses of the Scarborough Hospital will use the idea in their emergency departments.

In the first phase, started in early November, the new "smart" tools began to help triage nurses assess patient conditions.

"As patients arrive, nurses enter the details into the system and the tool will provide an accurate triage rating from one to five, with one being the most serious," says Dr. Tom Chan, the hospital's medical director and chief of emergency services.

When the second phase goes "live" in January 2008, patients who have seen the triage nurse will be able to enter information at a stand-alone kiosk, if they wish. As they wait, they will be able to update their information — indicating if there is a change or even if there is no change.

For example, says Dr. Chan, if a nosebleed patient starts to experience chest pain and had a history of heart problems or diabetes, their rating would move up. **The new information would immediately pop up on the triage nurse's computer.** Andy Holt, vice-president of medical affairs, says, "The job of the triage nurse is one of the toughest and most intense I've seen. We have 100,000 people per year coming through our emergency department, roughly 300 each day, and we were looking for ways to support the triage nurses and the patients."

Louise Leblanc, director of emergency services, says, "The exciting part of phase two of the study will be the fact that the kiosks will "talk" to patients in their native language." Since some 50 per cent of the hospital's patients speak English as a second language, the new tools will take the information in eight different languages and translate it into English for the health care team. The kiosk will ask them questions in languages that include English, French, Chinese (Cantonese and Mandarin) Tamil, Punjabi, Farsi, Hindi and Urdu.

"And, of course, patients can still see a triage nurse if they wish," she adds.

The 18-month project has involved extensive testing for security, patient safety, reliability and robustness.

Mr. Holt says, "We've taken a lead from the flight simulators in the airline industry for the testing and development, with a mock-up situation at the Centre for Global eHealth Innovation at University Health Network (in Toronto) testing with staff and 'simulated' patients to minimize risk."

The idea of these smart tools is to manage intake and patient flow and improve communication and care within the budget constraints that hospitals face.

Mr. Holt says, "We think it has huge potential, but we'll know more when the project is over."

Dr. Chan agrees. **"By the end of the project, we hope to have answers to the questions: Is it valid? Do patients accept it? If so, what is the impact?"**

The \$2-million joint venture between the hospital and [Canada Health Inforoute](#) has included other partners such as the Centre for Global e-Health Innovation at University Health Network, the University of Toronto Healthcare Resource Modelling Laboratory, the University of Alberta eTRIAGE Solution and the kiosk vendor, Medisolve. The system is called "Enhancing Emergency Services: A Patient-Centred Approach" or EES.