

E-health: the new frontier of medicine

BY CHARLIE FIDELMAN, THE GAZETTE FEBRUARY 27, 2009



Baie d'UrfĂ© resident Gerald Lefebvre hits send button on a BlackBerry, which transmits his blood sugar levels to a nurse's office in Beaconsfield.

Photograph by: JOHN MAHONEY, THE GAZETTE, The Gazette

'Speed cop' keeps an eye on diabetes patient

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Gerald Lefebvre says his BlackBerry smart phone is a "speed cop" that keeps a strict eye on his sugar habit.

Lefebvre, 84, says he is not particularly savvy, technically speaking, but he loves the smartphone because it gives him a handle on his health.

Lefebvre, who has Type II diabetes, is in a two-month pilot project run by the McGill University Health Centre on technology and patient health using cellphones to monitor blood sugar.

Lefebvre and other patients take blood sugar measurements three times daily using a gadget that transmits information via the phone to nurses' computers in real time.

"I'm being more careful, because of the fact that someone is monitoring it," he said. "It's like having a speed cop on the corner. You don't go through the stop sign. They'd know right away if I had too much sugar."

"If their levels are not normal, I would call and put them in touch with a dietitian to review what they ate that day," said Nicole Pelletier of Health Access Sant , a private home-care service working with McGill.

Experts are calling such "disease management" techniques the way of the future. "Patients are telling us that it helps them control their illness," Pelletier said.

The project is the brainchild of Antonia Arnaert, assistant professor at McGill University's school of nursing, who did a larger study on home tele-health in her native Belgium showing that support of aging patients at home delays institutionalization of seniors.

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Surgeons are now sending "tweets" from the operating room. That would be a slice-by-slice and stitch-by-stitch description, in 140 characters or less, new to the growing phenomenon of Web-based social media.

Electronic medical records, following patients via telemonitoring, wireless health info - welcome to the new face of medicine, experts at a Montreal conference on E-health said yesterday.

Twittering is just the latest innovation, said Peter Waegemann, CEO of Boston's Medical Records Institute, and a key speaker at the Third International Symposium on Medical Information and Communication.

The three-day conference brought together engineers and health professionals to discuss the latest applications in the field.

"mHealth (mobile phones) will be the next revolution in health care," Waegemann said in an interview.

For example, an African doctor in an area without telephone reception recently text-messaged his medical teacher in England about amputating a patient's arm. He had never done an amputation and he got his answer, Waegemann said. Once banned from hospitals for fear of interference, the rehabilitated cellphone should become a prized tool for clinicians, Waegemann said. (Newer cellphones pose fewer safety problems for hospitals.)

Four wireless communication companies in the United States are competing for a slice of the digital health care business.

"I predict that 30 million people will have their health records on cellphones by the end of 2009," Waegemann said. "Your medication, your allergies, previous diagnosis, what your doctor should know ... so you never start out with a blank sheet. You can do it on any phone and with any carrier."

In California and Arizona, ambulances equipped with smart phones send patients' medical information ahead of arrival at an emergency room so a hospital can prepare.

Also, some patients are sending text messages to their doctors with questions about their symptoms, particularly in the area of asthma, diabetes and obstetrics.

"Doctor, I feel an asthma attack coming, what should I do? I'm doing it with my doctor with high blood pressure," Waegemann said.

Studies show such "disease management" improves care and saves the health system millions, he said.

Once vilified as unreliable, the Internet is now source of information for more than 70 per cent of patients who tend to use it for second opinion, he said.

Patients with chronic diseases tend to be extremely well informed about their health problems, sharing on websites results of treatments, experimental drugs and trials, what worked and what didn't, he said.

"They share everything. They know more than the average doctor," Waegemann said.

"Practitioners can no longer rely on memory for information learned in medical school 10 or 20 years ago.

"Once health care is restructured to the Web, the patient will own the process."

Montreal conference co-organizer Allen Huang, director of geriatric medicine at McGill University Health Centre, said that twittering, although a modern communication tool, will not be happening from local operating rooms in the near future.

Because of limited bandwidth and confidentiality concerns, Quebec hospitals do not allow two-way access to the Internet: for example, to Facebook, twitter or other social media sites.

The conference also touched on electronic medical records and patient safety.

In Detroit, Craig Rogers generated a lot of buzz two weeks ago when he had his chief resident twitter while Rogers removed a large cancerous tumour from a patient's kidney.

Rogers said his goal was to improve communication for doctors, medical students and the merely curious.

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