EDITORIAL

What Will it Take to Bring the Internet into the Consulting Room?

We Cannot Remain Oblivious to our Patients' Expectations

Over the past decade, we have witnessed how the Internet has transformed major industries. Managing our finances, buying music, planning a trip, participating in an auction, or even buying a book will probably never be the same thanks to rapidly evolving Web-based services. It is puzzling to see how, during the same period of time, the Internet has remained almost completely absent during the interactions between physicians and patients in the consulting room.

Recent surveys in Canada and the United States suggest that two thirds of members of the public now have access to the Internet¹⁻³ and that more than 80% of them use it as a source of health information.^{1,4} Sadly, physicians seem to be oblivious to the expectations that the Internet is creating among patients.

In this issue of the *Journal of General Internal Medicine*, a study brings the point home. While more than 60% of patients expected their physicians to give them recommendations about Web sites where they could learn more about their health or health care, less than 5% of the patients said that their physicians had asked them about whether they had used the Internet and in only 3% of cases physicians had recommended the use of the Internet as a source of health information.⁵ Why is this? How could the mismatch between what patients expect and what they get be addressed?

The reasons behind the apparent apathy of physicians to talk about the Internet with patients are poorly understood. Arguably, some of these reasons are likely to be the same as those hindering online communication with patients,^{6,7} including lack of time, poor financial incentives, or inadequate technical support in the clinic to match the expectations of Internet-savvy patients.⁶⁻⁹ It is also possible that physicians are not mentioning the Internet in the clinic because they do not know that it is such an important issue for patients or simply because they consider it to be a Pandora's box. As technology continues its relentless pace of evolution, it will become increasingly difficult to justify our detachment.

In the short term, we may start by taking some simple but important steps towards increasing the role of the Internet as part of the patient-physician relationship. The following are some suggestions on how to start introducing the topic of the Internet into a busy clinical setting, based on my own experience during the past 5 years:

- Always have Internet access available in the consulting room.
- Ask patients questions about their use of the Internet as early as possible during the consultation.
- Encourage patients to share details about sites they have found particularly interesting or relevant. This eliminates the need for patients to conceal information. In the study by Diaz et al.,⁵ less than one third of patients who used the Internet for health information told their physicians about the information they had found.

- Arrange the furniture in the consulting room in a way that would enable joint Web browsing and typing with the patients. This could minimize the problems described in another article published in this issue of the *Journal of General Internal Medicine* in which it was shown how the introduction of computers into the exam room, for use only by the physician, could have important effects on the relationship with patients.¹⁰
- At the end of consultation, offer an information prescription to the patients.¹¹ This could be as simple as an e-mail, which lists patient-friendly sites that contain information relevant to their clinical cases.
- Maintain a list of sites that contain information that is appealing to people with different levels of functional health literacy. Resources such as MedlinePlus are usually sufficient to cover the needs of most patients.¹² Online videos are particularly valuable to elderly patients, while interactive sites are very appealing to younger patients.
- When patients do not have access to the Internet, ask them about relatives or friends who could access it on their behalf. If they do have someone, instruct the patients to work with such person to "fill" the information prescription. If they do not, offer to print information for them from the Web, or refer them to a nearby library (ideally within a health care institution) where there is Internet access and personalized support.
- Use the opportunity to talk about the Internet to direct patients to resources that promote disease prevention and health promotion, not only for them but also for their relatives and friends.

These simple actions do not take much time or resources and open the door to discussions about the Internet during consultations. With the continued development of the Internet, we should get ready for dramatic changes in the nature of the clinical encounter. The following scenario, designed around a nonurgent consultation, may reflect the kind of interactions that patients and health professionals will have at some point in the future:

A patient with some worrisome symptoms accesses a free online help line through the Web. Using Web-based videoconferencing, a nurse with training as an information specialist assesses the situation, reassuring the patient that urgent care is not needed and suggesting a consultation at a nearby clinic. The patient is instructed to use a Virtual Clinic to access relevant high-quality health information, tools for self-assessment, and for capturing digital clinical samples (e.g., blood pressure readings, digital pictures). Using the Virtual Clinic, the patient books an appointment at the clinic. The Virtual Clinic then helps the patient create a list of important questions and issues to discuss during the appointment. As the patient has not visited the institution before, she takes a virtual tour, guided by one of the members of the health team.

At the appointment, voice recognition software and digital video cameras record the entire consultation and store the information in the patient's health record, enabling the physician to maintain

visual contact with the patient at all times. At different points during the consultation, the patient and the physician are guided by evidence-based decision support tools that they access through portable computers linked to the wireless network of the clinic. Following the physical examination, the physician and the patient agree on a series of tests that are ordered online to be performed at a location and time convenient for the patient. Test results are sent to the physician automatically, as they are generated. The patient receives a multimedia explanation of the findings and has the option of having a videoconference or a face-to-face consultation with the physician to make a decision on treatment. The patient chooses the face-to-face option and books an appointment through the Virtual Clinic.

Is this science fiction? Online help lines; Web cameras; wireless networks; digital cameras; online schedules and questionnaires; voice recognition software; decision support tools and electronic health records already exist. However, just putting gadgets together will not change clinical care. Bridging the gap between what we could do with the Internet and what we do while we interact with patients will require major efforts at almost every level within the health system.

Physicians would need to be reassured that the use of the Internet would not add to their already excessive workload, that their income or quality of life will not be reduced, and that they will be protected from legal liability.¹³ Patients would need technology designed to meet their needs, regardless of who or where they are. Additional support will be required to level the playing field for people who are disadvantaged by low levels of functional health literacy, poverty, cognitive or physical disabilities, language limitations, or poor access to the Internet. The health system will require integrated information systems, interoperable electronic health records, new models for the provision and reimbursement of clinical services, and formal programs to provide and assess the level of proficiency of health professionals to use the Internet as a core component of their clinical practice. These issues are not new, but they have been addressed in a fragmented and inefficient way, at least in North America. As a result, no single group or even country has been able to keep up with the rapid pace of technologic progress or to contribute substantially to the transformation of the health system. Collaborative efforts among leading organizations throughout the world, to divide up the agenda and tackle common challenges with common methodologies may be the only viable option if we truly wish for a health system that uses the Internet to meet the needs of the public it intends to serve.

Our generation missed the opportunities created by the telephone, a ubiquitous and familiar tool that remains underused within the health system 100 years since its invention. We cannot repeat history now in relation to the Internet. Our

children are already wondering how we managed to go through school without it. Soon, they will start wondering why we do not use it to communicate with patients in the clinic and beyond.

Let's make every effort to ensure that the next generation grows up to find the health system they expect and deserve.¹⁴ If we try and fail, at least we will know we tried. At that point we could, proudly, encourage them to try again.—**Alejandro (Alex) R. Jadad, MD, DPhil, FRCPC**, Director, Centre for Global eHealth Innovation, Canada Research Chair in eHealth Innovation, Rose Family Chair in Supportive Care, Professor, Faculty of Medicine, University Health Network and University of Toronto, Toronto, Canada.

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