

Technology unleashed - The evolution of online communication

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Electronic health records, email, web portals, social media, smartphones, and tablets. How should physicians weigh the pros and cons of using increasingly popular technologies?

Besides the number of technologies in their practice environment, physicians may also be encountering more patients eager to book medical appointments and check their medical records online. Some may even want to "friend" their physician on Facebook.

When considering whether to use new information technologies, either professionally or personally, physicians should assess the potential benefits and consider the medico-legal risks. When harnessing the potential of the digital age, the key is to know the risk and how to mitigate it.

Information technology is a reality of medical practice and this presents an opportunity to learn how to integrate these new methods into daily practice. The first step is to learn about the platforms, and then reflect on whether and how each might be used in practice.

Understanding the technology, assessing the risk

Electronic medical records

Implementation of electronic medical records (EMRs) in medical practice continues and many practitioners have embraced the possibilities of improved care through the use of EMRs.

The 2010 National Physicians Survey found that 39% of practising physicians now use EMRs¹. With 82% of second-year residents reporting that they intend to use EMRs, the use of EMRs is expected to continue rising.

The EMR is a foundational electronic platform that facilitates access to medical records on various digital devices. While most family physicians access records in their office, specialists are more likely to access EMRs from hospitals or health

centres. Many physicians surveyed can access the records from home, and close to half of the youngest physicians surveyed access records from a laptop.

Electronic medical records are poised to be accessed increasingly from mobile devices. Using a system which is certified in the physician's jurisdiction is key to the security of patient files and to help meet the legal obligations of privacy and confidentiality. The CMPA has written extensively on the use and implementation of EMRs ("[Electronic Records Handbook](#)"), as well as on privacy and confidentiality. These resources are available on the CMPA website.

Email

While email technology is almost two decades old, the medical community has been cautious in adopting it to interact with patients.

According to the 2010 National Physicians Survey, only 16% of physicians use email with patients for clinical purposes. Meanwhile, 58% use email to contact professional colleagues.

There are several potential risk areas in email communication including privacy and security, timeliness of responses, and clarity of communication. Before engaging in email communication, members should review any applicable statutory or regulatory authority (College) requirements that may impact the use of email for transmitting patient health information. Consent by the patient to this form of communications is also important. As well, all emails and attachments should have adequate encryption.

The CMPA has written extensively on the medico-legal risks of using email for professional purposes. For additional information on how best to mitigate the risk of using email, including patient consent forms, see "[Consent to use electronic communications \[PDF\]](#)".

Web portals

The full potential of web portals has yet to be harnessed, but the promise of timely communication with patients is enticing.

Several specialized websites provide private online environments designed for physician interaction with patients. One of the longest standing web portals, [mydoctor.ca](#), was created in 2008 by the Canadian Medical Association. It is only one of several "health portals."²

These portals allow physicians to share medical information with patients, prescribe directly to patients, provide information on a physician's schedule, allow patients to book appointments, provide alerts to patients regarding follow-up

care, and allow patients to view their medical history and test results. Most sites also provide secure messaging between the physician and patient, and some provide online networking environments where patients can share information with other patients.

Information stored on portals can be accessed from desktop computers as well as mobile devices, allowing patients and their physicians to monitor health indicators such as blood pressure or blood-glucose levels.

Like all uses of technology, physicians must weigh the potential benefits and the medico-legal risks. While providing patients with information online may empower patients and encourage them to become active participants in their own healthcare, some patients may misinterpret results and jump to conclusions. And, as with all online correspondence, lack of clarity and miscommunication can add complexity to doctor-patient relationships.

Physicians who want to make their services available through a web portal should ensure the chosen platform has adequate security systems to protect patient information and that the requirements of the applicable privacy legislation are respected. Patients should be made aware that portals should never be used for urgent or time-sensitive health issues. Informed consent is key and the physician should keep a record of the patient's agreement to this use of technology.

Mobile devices

In some hospitals, physicians are putting away the standard clipboard and pencil, and are instead opting for the use of tablets.

These tablets — essentially small computers — provide access to email and the Internet, and allow the viewing of learning videos or podcasts. Tablets can interface with other computers wirelessly and can provide access to medical facts, drug-related information, medical calculators, as well as word processors and spreadsheet software. These devices can make the interface with EMRs almost seamless.

Similarly, smartphones are creating an opportunity for doctors and other healthcare professionals to access information wherever they may be — whether working shift in a hospital, or seeing patients in daily office practice.

Some physicians are using mobile devices for remote monitoring of patient care, bridging the distance between physician and patient — a kind of long-distance house call. For example, a physician who is out-of-town may check on patients

with chronic conditions such as diabetes or high blood pressure, or visually verify post-operative incisions.

There are a number of precautions that physicians need to consider to avoid medico-legal difficulties. If accessing EMRs from a mobile device, for example, the physician should verify that patient information is encrypted and security levels are adequate to meet the privacy requirements of the jurisdiction. Devices should be password protected, and it may be possible to remotely lock or "wipe" all information from the device should it be stolen or lost. Such measures help ensure that the content stored on the device is not viewed by unauthorized users, even inadvertently.

Social media

Canadian physicians are becoming increasingly aware of the potential of social media — particularly for learning and sharing knowledge — and some medical organizations and societies now use social media tools.

The 2010 National Physicians Survey reports that more than 51% of physicians were using Facebook for personal reasons, while 20% were using other platforms such as Twitter and LinkedIn. The same survey notes that 22% of physicians used online discussion forums with other physicians for professional purposes.

However, online networking is raising issues related to professionalism and ethics, and even personal use of social media by physicians can prompt questions concerning privacy and confidentiality.

Whether a physician has found an audience on a micro-blogging site such as Twitter, posts videos on YouTube, connects with colleagues through LinkedIn, or blogs about health-related issues, keeping patient information confidential and secure is paramount.

The line between professional and personal is often blurry for physicians. Some Colleges have issued guidelines about the use of social media and physicians should check regularly for new policies and updates. Physicians should consider the following:

- Social media platforms should be treated as virtual public spaces, used by millions and potentially accessible by anyone.³
- Physicians who communicate through social media, on web portals, or via email should be mindful that they are governed by the same professional and ethical standards as would apply in a physical environment (e.g. hospital setting, family practice).

- The laws on defamation, copyright, and plagiarism apply equally to the web and social media as to print and verbal communication.
- Privacy legislation and licensure require that physicians guard against disclosing any information that could identify a patient. These requirements apply no matter the technology or electronic platform.
- Physicians considering the use of social media should review the policies or guidelines of their College. The Canadian Medical Association has also published guidelines entitled *Social media and Canadian physicians – Issues and rules of engagement*.
- Physicians who use social media are advised to activate the strictest privacy settings whenever possible. On Facebook or LinkedIn, for example, users can adjust privacy settings within the profile sections of their pages. Remember, however, that even though privacy settings have been adjusted, confidential information should not be shared on public social sites.

The field of technology evolves rapidly, often prompting questions regarding risks and benefits. When in doubt about the use of new technologies and of social media, members should not hesitate to call the CMPA for advice or guidance.

References

- 1 2010 National Physician Survey. Retrieved on February 2012 from: <http://www.nationalphysiciansurvey.ca/nps/home-e.asp>
- 2 mydoctor.ca is hosted by the Canadian Medical Association. There are also several privately owned web portals including mypatientaccess.ca, HealthConnex, myOSCAR, etc.
- 3 The College of Physicians and Surgeons of British Columbia, "Social media and Online Networking Forums," September 2010.

