

Alberta Doctors' Digest

The best gadget is the one that's with you

Editor's note: For the January-February issue of *Alberta Doctors' Digest*, we bring you this classic *Dr. Gadget* article from our archives (originally published in the September-October 2017 issue).

The best gadget is the one that's with you

As I considered the topic of this article, it occurred to me that I hadn't talked about gadgets here for quite some time. My next thought was: Which gadgets should I highlight? Should I focus on artificial skin transplants designed to treat diabetes or power prosthetic devices? Maybe I could review Bluetooth cochlear implants or an artificial iris that responds to light much like the natural eye? What about smart shoe insoles or battery powered clothing? Or contact lenses that monitor blood glucose? Maybe a vibrating pen that makes it easier for Parkinson's patients to write? Or, perhaps tissue nanotransfection which uses a small coin-sized silicone chip that "injects" genetic code into skin cells, converting them from one type to another?

While all of these are interesting, I came to the conclusion that the best gadget I own, and is actually working well, is my smartphone. With that thought in mind, I would like to highlight a dozen uses of this tool in medical practice.

Communication device

First and foremost, our smartphones allow us to be in contact with the rest of the world by voice, email or text. Some physicians use encryption software such as Canadian-developed ShareSmart to take clinical photos and discuss patients with their colleagues using text messages in a secure environment.*

Camera

All modern smartphones have a built-in camera that allows physicians to take high-quality pictures. I often use a different app that allows photo input such as Notes on iOS (iPhone) so that these photos do not go into my photo library. Many electronic medical records (EMRs) use this capability through a dedicated app to allow direct private communication with the patient record.

Flashlight

Most smartphones incorporate a flash module that you can quickly access as a flashlight to allow for better visualization in the exam room.

Magnifying glass

The camera feature can double as a magnifying glass when you are looking for that corneal foreign body (with no slit lamp available) or need a better look at a skin lesion. However, the latest versions of iOS has a setting that produces a lighted magnifier

through a triple-click of the home button. You can find it by following this path: Settings – General – Accessibility – Magnifier (on).

Photocopier

Some of my patients bring in lists of concerns or personal health readings such as blood pressures or glucose readings on paper. Rather than take time to transcribe these documents, I quickly use my phone to take a photocopy, and if my EMR allows it, attach it directly to the chart.

Mirror

I have used the patient's phone as a mirror using the front facing (Skype or FaceTime) camera in the exam room when the real item is not available.

Timer

Your phone helps you easily maintain your schedule by setting timers and alarms.

Personal assistant

All modern smartphones understand simple commands to help manage calendars, set reminders, do web searches and even send text messages through Siri, Cortana or Google. This personal assistant function sometimes saves a considerable amount of time.

Notepad

Note-taking capabilities are available on all smartphones. Notes can be entered in the usual manner using the keyboard, but most devices also allow for dictation, which I have found generally quite accurate. I have used this as a reminder to follow up with learners on an assignment or to do more in-depth research on a particular patient concern. Most note-taking apps allow you to add photos, web links or soundbites.

Audio recorder

Smartphones are excellent audio-recording devices. It is very possible that your patients are using this feature during your interaction with them. Perhaps in the future, we will be able attach sound files to the patient file, saving considerable charting time.

Clinical resource

Many medical apps transform our mobile devices into incredibly useful resources. Some of these apps have been reviewed in previous Dr. Gadget articles, and I expect many more will be developed in the future.

Specialized diagnostic tool

Your phone can become, for example, a dermatoscope, an ultrasound viewer, an ophthalmoscope, a sphygmomanometer, a colposcope or a heart monitor using dedicated attachments and their associated apps.

Like most gadget geeks, I enjoy the thrill of learning about and playing with the newest and best tech toys. I doubt this will change, but I will make a concerted effort to

understand and utilize all the power of the best gadget I own – the one that is always with me.

Editor's note: If you intend to use secure messaging to communicate patient information, even if encrypted, a privacy impact assessment is required for submission to the Office of the Information and Privacy Commissioner of Alberta.

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