**EDITORIAL**

**Beyond Bar Codes: FindtheDOT**

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Most of our readers are working hard in hospitals, managed care organizations, and other settings to reduce the epidemic of medical errors, especially those relating to the delivery of prescription medication. Indeed, volumes have now been written about medical error reduction, and major national organizations are spreading the error-reduction gospel everyday. Progress appears to be painstakingly slow; however, even federal agencies such as the FDA and CMS (Centers for Medicare and Medicaid services formerly HCFA) are beginning to quietly seek a legislative role in error reduction.

One possible role for these agencies, among others, would be to legislate the requirement of a technological fix to reduce medical errors. This fix might include, for example, a requirement to utilize bar-code technology in drug dispensing; to implement physician computerized order entry in certain settings; or to require dispensing pharmacists to double-check all prescriptions at the point of sale. Perhaps all of these measures would go a long way toward reducing the error epidemic.

Recently, I’ve become aware of a completely different, intriguing technology that I hope will further the debate about technological fixes for error reduction. Standard bar codes, a 30-year-old technology, still work well in many institutions around the country. Bar codes verify the details of prescriptions and, together with nearby base stations, work to reduce medical errors. However, bar-code technologies must be tethered to a computer or reading device. Bar codes are not portable, and introducing additional details about a patient’s medical history or the results of prior laboratory tests would require a bar code four feet long (obviously an impracticality).

The new technology I am referring to comes from a company called FindtheDOT, Inc., in Oakland, California. According to their own literature, FindtheDOT was founded in November 1999 to provide solutions for the “direct connection of the physical world to requested delivered information. FindtheDOT addresses the need for a wireless, intuitive, seamless lifestyle connection from traditional print mediums and products to the dynamic, responsive, content-rich world of interactive electronic information.” What does all of this corporate jargon mean?

Essentially, FindtheDOT has created a new technology called a Dot Finder (Finder, for short), which is a compact hand-held electronic device, weighing 1.3 ounces—something that could fit conveniently on a keyring. This Finder is always on, with no power switch display or programming to complicate its use. One simply taps the Finder over a Power Dot that appears in print; the Finder then beeps and flashes a green LED to indicate that it has read, validated, and successfully stored this Power Dot. Anytime the Finder is within 30 feet of the user’s personal computer, it automatically empties any of these stored Power Dots to the personal computer via a proprietary radio frequency link.

These Power Dots are also proprietary. Think of them as a small, round, bar-code-type invention, but far more elegant and powerful. The 3-mm diameter Power Dot fits comfortably in very dense layouts that one would find in a catalog, in classified ads, or even in the PDR. It has a trademark propeller design that makes it instantly recognizable. No special ink or process steps are required for printing it, and each Power Dot code contains 64 bits of data and 48 bits of error correction to ensure what the company calls robust reading every time. The Power Dot should not be thought of as a bar code, but rather as a printed data glyph. The Power Dot code space is sufficient to provide 500 unique dots for every person on the planet every day for the next 1,000 years!

Now, how does this work and how does it reduce errors in prescribing? Let’s imagine, for a moment, that every prescription carries this easily printable Power Dot or that every armband of every patient in the hospital setting has a Power Dot glyph. Using the 1.3-ounce Dot Finder (which could be carried by every nurse, lab tech, phlebotomist, and physician), a single one-second tap over the Power Dot would ensure that once you hear the tone emitted from the DOT Finder, you know you have the right drug in the right dose for the right patient at the right time. The company is working hard to imbed the Dot Finder technology into Palm Pilots, cell phones, and pagers already carried by most health care professionals.

What other medical applications might arise from this interesting FindtheDOT technology? Imagine going to a medical meeting, and instead of gathering papers, flyers, and slick brochures from each booth, you simply carried your Dot Finder and electronically lifted information from Power Dots readily accessible at all of the booths. When you returned home, you would aim your Finder at your PC, and all of the email, with pictures, graphics, and every imaginable detail, would appear on your screen. You could then selectively print whichever subject ultimately interested you the most. You would never have to write down a URL or type in a long, cumbersome Web address to get additional details from any pharmaceutical company, contract research organization, or other exhibitor. This would create, in effect, a paperless medical meeting.

Going beyond the bar-code technology in the hospital setting, I can envision FindtheDOT as an integral part of making the rounds in the future. One could place his personal digital assistant, like a Palm Pilot, over a dot in the medical record, and seamlessly beam this information to consultants and other specialists helping to care for individual patients. FindtheDOT technology would not only reduce medical errors, but would also improve our...
ability to follow strict formulary guidelines and narrow the performance gap for drug prescribing and compliance programs.

I am sure that most readers would agree that FindtheDOT is only one of many possible solutions to the error epidemic. There is no silver bullet for reducing medical errors and, as our readers know, it is everyone’s responsibility to participate in improving the drug-prescribing and delivery process.

If you are interested in learning more, you can contact FindtheDOT’s national health care distributor, Healthcare Executive Partners, at melhstein@hexpa.com. Of course, I am always interested in your views; you can reach me at my email address: david.nash@mail.tju.edu.

References
2. FindtheDOT Corporate Brochure, available from Corporate Headquarters, 364 14th Street, Third Floor, Oakland, CA 94612.