



August 19, 2007

Doctors use handheld technology to save time, improve care

By Tom Breen

It used to be that when doctors prescribed a new drug, it meant hitting the reference books to see how the new prescription would interact with medications a patient was already taking.

Not anymore. Increasingly sophisticated mobile technology means that doctors can carry vast drug reference guides, patient charts and even full textbooks in the palms of their hands.

Dr. Greg Rosencrance, chairman of the Department of Internal Medicine at West Virginia University's Charleston medical campus, uses the hospital's wireless network to regularly download X-rays, test results and other information about his patients while making his rounds.

"It can be extremely helpful," he said. "There's no way anyone can carry this much information around in their head."

As personal digital assistants become more common in everyday life, doctors and nurses are making use of the technology not just for address books and e-mail, but as a constant part of their practice.

"It's become as important as my stethoscope," said Dr. Daniel Diamond, a family physician in Silverdale, Wash. "Actually, if I forget my stethoscope, I can just borrow another. If I forget my PDA, I go home and get it."

Doctors are moving to adopt the technology partly because it allows them to spend more time with patients, but also because some of the programs available can cut down on the risk of medical error.

Using drug reference software made by the California-based company **Epocrates** on her PDA, Dr. Sue Wolver can prescribe medication to a patient while cross-referencing it with multiple drugs.

At the click of a stylus, she can tell whether the new medication will interact badly with the old drugs, or whether it's likely to have significant side effects.

Wolver, a physician and educator in McGuire, Va., was first trained as a doctor in the mid-1980s, before computers had seriously changed the field. In those days, she said, cross-referencing medications could be more precarious.

"The likelihood is that (doctors) kind of hoped for the best," she said. "A lot of people relied on their experience and whether they've had success with a particular drug in the past."

About 55 percent of U.S. doctors currently use a mobile device such as a PDA or smartphone, according to Manhattan Research, and about a third of medical schools now require new students to have such technology.

Epocrates, which is used by more than 500,000 health care professionals, according to the company, makes some of the most common products for handheld medical technology. It provides its Epocrates Rx program - which lists drug facts like usage, generic equivalents and possible side effects - for free.

Other common uses include UpToDate, a medical reference Web site, and even entire medical textbooks which in printed form would stretch to hundreds of pages in hardback.

The extent to which the technology should be used in daily practice, though, is still being debated by physicians.

Dr. David Stockwell, assistant professor of pediatrics at Children's National Medical Center in Washington, said he's heard debates over whether it's good bedside manner to bring out a PDA in front of a patient, who might lose confidence in the doctor's abilities.

The increasing use of PDAs in all walks of life make such reactions less likely as people become familiar with the capabilities of the technology, Wolver said. In the old days, she used to carry reference books in her lab coat.

"A patient's a lot more concerned when you're looking into a how-to book than when you're looking at a little electronic device," she said.

Anecdotally, physicians also say the technology has been adopted much quicker at large hospitals and medical schools, and is slower to take hold among doctors in smaller practices. And not even the most sophisticated software can replace the individual skill of a doctor working daily with patients, Rosencrance said.

"You have to become careful you don't become a slave to the technology," he said. "All the tools in the world don't make you smarter."