### REINVENTING YOUR PRACTICE

## Do-It-Yourself EMR System Modernizes a Solo Practice

money on a prepackaged electronic medical record system, Dr. L. Allen Kindman decided to construct his own path to a paperless practice by building on existing software.

"My solo cardiology practice went from being a paper-based, resource-intensive operation to one that has taken a pioneering yet cost-efficient approach to reinventing itself," said Dr. Kindman, who

ather than spend a large sum of practices in rural Roxboro, N.C. "Although rural practices may often lag [behind] larger urban practices in the uptake of technology, it has always been my view that rural practitioners need technology more than their city cousins."

> When Dr. Kindman started shopping for a commercial electronic medical record (EMR) system in 1997, he was operating his solo practice from two offices and his home. He quickly learned that equipping

the three locations with a connected EMR system would be an expensive proposition.

"For me and my two nurse practitioners to set up a complete EMR system de novo would have cost about \$80,000, and that was in 1999, 2 years after I began looking at quotes," he said in an interview.

He turned to Microsoft Access, a program in Microsoft Office Professional. "Using Access, I developed my own EMR that was specifically designed for my cardiology practice," he said. Once patient records were scanned in and all incoming information could be managed electronically, the practice went paperless in 2003.



"In 2005, I incorporated

e-prescribing into the EMR I had designed. We are now able to print or fax prescriptions directly to pharmacies, while keeping all information on my server," he said, adding that this feature is not yet perfected.

Dr. Kindman keeps track of prescriptions by drug classes, of which there are about 150 that are recognized by the U.S. Pharmacopeia. "My EMR tables are tied to those classes, so that when I want to find a patient's drug—Norvasc, for example— I type in 'calcium channel blocker,' then 'N,' and the doses for that drug appear in an adjacent field," he said.

This information is saved in the patient's file along with a box with a check mark in it. If the patient is later taken off Norvasc, the box is unchecked so that the file always accurately reflects the patient's medication history. "And all I have to do to print or fax a prescription is hit 'enter.'

But getting to this point was no stroll in the park; Dr. Kindman worked nights and weekends for almost a year before he got to the point where he was comfortable using the system in his practice.

Physicians who cannot or will not devote that much time to customizing an EMR system and decide to invest in a more expensive system should thoroughly investigate the options before buying, he cautioned. "Before you spend your money, be sure you're comfortable with the EMR's interface, which is how you interact with the EMR on a regular basis. If the interface is unsatisfactory, it will only make more work for you and may even slow you down."

Dr. Kindman is using Microsoft Visual Basic to develop an electronic medical history questionnaire that is designed for his practice and integrated into the EMR system. Patients will use the questionnaire to complete their medical history using a computer terminal in the waiting area. ■

By Bruce K. Dixon, Chicago Bureau

# **Enter the** REINVENTING YOUR PRACTICE Contest

### Have you discovered new ways to improve patient care?

Internal Medicine News wants to hear from you if you've done something innovative to make your office practice more clinically effective, patient friendly, and efficient. We'll recognize up to six contestants whose ideas are selected by Dr. Bill Golden, Dr. Faith Fitzgerald, and other editorial board members. We'll feature the winning entries in future issues, and award a pocket-size, high-capacity (6- to 8-MP) digital camera to each of the winning physicians.

#### Here's a partial list of topics for improving patient care:

- Conducting effective patient interviews when you are pressed for time.
- Improving your diagnostic acumen by close observation of patients, noting clues such as a hoarse or deepened voice (hypothyroidism?), loose clothing (weight loss?), loss of associated movement or other subtle changes in walking (early Parkinson's disease?).
- Helping patients overcome cultural or socioeconomic barriers to treatment adherence.
- Using family, friends, and social agencies to help patients achieve therapeutic success.
- Providing effective group visits and redefining team-based care.
- Implementing effective process changes.
- Using patient survey data or patient information from other sites.
- Making effective use of information technology and quality measurement in the office.
- Using an innovative approach to managing a clinical condition.
- Making each patient feel important in a busy office.
- Communicating effectively when breaking bad news.
- Ending a short visit with an anxious patient in a positive way.
- Abandoning clinical approaches that don't work in actual practice.
- Doing something else to make patient visits truly therapeutic.

To enter the contest, write a brief description (300 words or less) of something you're doing to improve patient care. Send your entry, including telephone number, to:

E-mail: imnews@elsevier.com

Reinventing Your Practice Mail:

> Internal Medicine News 5635 Fishers Lane, Suite 6000

Rockville, MD 20852

240-221-2548 Fax:

Responses must be sent by July 1, 2007. Multiple submissions are permitted. The contest judges will select the most valuable ideas; all decisions are final. Starting in the fall, watch for the winning entries in **INTERNAL MEDICINE NEWS**; other

submissions may appear in later issues.

