

## As Easy as...E...M...R

**EMRs aren't routine technology yet, but ease of use and demonstrated gains in efficiency remain two of the top incentives for adopting them.**

*By Richard R. Rogoski, Contributing Editor*

Regardless of the success or failure of the federally-proposed national health information network (NHIN), one of its key building blocks—the electronic medical record (EMR)—continues to find favor among large and small healthcare organizations. While adoption has been slow—less than 18 percent of U.S. physicians use an EMR—a combination of factors is helping EMRs gain a wider acceptance.

First, the technology has evolved, and EMRs are easier to install and interface with other systems; second, EMRs are also easier to use, making them comparable to the most common point-and-click and drop-down menu applications; and third, the efficiencies gained by early adopters are now being witnessed by those who have been reluctant to part with paper charts and prescription pads.

### **The Right Choice**

Given the wide range of products and vendors, choosing a suitable EMR can be a slow and painstaking process. Chad Zernickow, chief administrator at West Wichita Family Physicians in Wichita, Kan., recalls that in 1997, the practice had one PC with dumb terminals and the basics of a practice management system that was used mainly for billing and scheduling. “At the time, anything would have been a step up,” he says. “But we wanted a system that would grow with us, so we looked seriously at four systems, out of a total of six or seven.”

The practice did, in fact grow. It now has 22 board-certified physicians, a support staff of 165 and about 100,000 active patients. The practice sees about 750 patients a day. In April 2001, the organization began installing modules of the Pulse Patient Relationship Management system by Wichita-based Pulse Systems Inc. Fully integrated, this system combines the functionality of a practice management system and an electronic health record (EHR).



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Litton Family Medicine*



“We chose Pulse for two reasons,” Zernickow explains. “First, end-users who participated in demos felt it was the most user-friendly. It offered bigger icons; it was less technical; and had lots

of point-and-clicks.” Almost 99 percent of the practice’s administrative staff had not even used a PC before, so ease of use was an important factor, he says. The second reason for choosing Pulse was the fact that it was a local company that welcomed feedback for future product development.

Ease of use and customizability also helped Olmsted Medical Center in Rochester, Minn. achieve a major goal in rolling out its EMR—100 percent clinician usage. Sue Schuett, assistant administrator for information technology, says the process of getting all 140 clinicians comfortable with using an EMR actually began two years before it was installed.

### **Opt In Only**

Between 1998 and 1999, all physicians with varying degrees of computer comfort were encouraged to use computers for nonclinical tasks, such as e-mail and administrative documentation, on a day-to-day basis, she says. “We didn’t know when we would find the right EMR, but we needed to entice our clinical staff into using computers for nonpatient care activities,” Schuett explains. “We placed a PC in each of their offices and said e-mail would now be our primary means of communication. We drew a line in the sand and set dates.”

In time, physicians and nurses were ready to use their new-found skills for patient care, but the organization still had not found a suitable EMR. “We had really educated ourselves about products and vendors, but had not found a product we felt would be successful in a phased rollout,” she notes, adding that the cost involved in rolling out an EMR that would serve the ambulatory needs of 11 clinics and one 70-bed community hospital also was a factor.

Then, in mid-2000, Olmsted was contacted by the marketing team and software development group of Scottsdale, Ariz.-based InteGreat Concepts Inc. With an EMR product still in its infancy, InteGreat had only one other group practice as a client and expressed an interest in establishing a beta partnership with Olmsted. “I believe we fit their customer profile,” Schuett says. “Plus, some of their programmers had worked with Olmsted in past relationships, so they knew us well as an organization and understood our business needs.”

In the fourth quarter of 2000, Olmsted signed a contract with InteGreat and began rolling out the first browser-based modules of IC-Chart during the third quarter of 2001. “Olmsted’s board expressed the vision and expressed the implementation plan,” she says. “They made the decision that clinicians would not be able to opt out, so we took a lot of time in our initial planning phases, and the organization had a lot of patience.” Taking the extra time did pay off. “We took time to explore our workflows and took a lot of time with process engineering,” Schuett adds.

### **Right From the Start**

But, time spent evaluating products and vendors also ensures that a practice, regardless of its size, will find an EMR that satisfies all of its requirements. Even before J. Scott Litton Jr., M.D., opened Litton Family Medicine in Pennington Gap, Va., he knew he wanted an EMR. “I had used paper charts in my residency, but in my second year of the residency program, they



converted to an EMR. I knew that I would be a solo practitioner and wanted to use an EMR from day one.”



Completing his residency and opening his own family practice in 2003, Litton says he did an online search for appropriate EMRs. “When I did a Google search, e-MDs was the first company that came up,” he says, “so I just compared every other product to theirs. That’s how they became a benchmark for me.”

In comparing products, Litton made a list of the top 10 and a list of pros and cons for each. But after he did an online demo with a sales rep from Richmond, Va.-based Sydian Solutions, a value added reseller for e-MDs, he decided to purchase the full suite of e-MDs Solution Series, which is an integrated electronic medical record and practice management system. Plus, he says, the fact that Cedar Park, TX-based e-MDs was founded by a family physician makes the product a better fit for a practice like his own.

### **Multiples of One**

Being a solo practitioner gives Litton the freedom to run his practice the way he wants. Yet, with about 3,500 active patients, he can’t afford to waste either time or manpower. “I have a nurse practitioner who sees 15 to 20 patients a day,” he says, “and I have two nurses, an office manager and a receptionist.” Interestingly, the nurse practitioner had never used a computer before, but since e-MDs’ EMR uses templates and point-and-click technology, her training took only a couple of weeks, Litton says.

Litton, himself, uses a wireless tablet PC on which he does all his charting using e-MDs Chart; communicates with both front and back offices via e-MDs TaskMan; gathers electronic files and lab results using e-MDs DocMan; and does patient billing through e-MDs Bill module.

To keep track of his patients while they are in the office, Litton uses e-MDs’ Tracking Board. “I can see when they’re in the waiting room, being prepped or in an examining room,” he says. Because the tracking board screen on his PC indicates the order in which patients were sent to each exam room, Litton knows which patient he needs to see next.

The combination of these technologies also has led to shorter wait times—as little as five minutes from the time a patient enters the office to when he or she is seen. In addition, Litton brings his tablet PC into the exam room so he can personally handle all documentation when he is with the patient. “The system allows me to capture a higher and more precise level of clinical documentation,” he notes “and patients think it’s cool.”

Litton's commitment to e-MDs' EMR has gained him a spot on the company's advisory board. "So, now I have input on how the software works and what I think should be changed, as a physician user," he says. One of his suggestions has already been added to the latest version. When electronic lab results and X-ray reports are received through the system, opening them for the first time automatically opens them within the patient's chart.



Litton also applauds e-MDs' plan to upgrade its software so that physicians will be able to upload patient information to a continuity of care record, a national database that someday will contain about 12 common items of every patient's medical record. However, Litton notes that questions concerning interoperability standards and a lack of widespread use of EMRs could be problematic and could hamper a timely introduction of the proposed NHIN.

If, for example, Litton sees one of his own patients in the hospital, he has ready access to the complete medical record. But, if he needs to order a hospital admission for a patient of one of his call partners, he has virtually no knowledge of diagnoses and treatments, other than those the patient himself can offer. In many cases, he says, duplicate tests are ordered and a lot of time is wasted. "Our profession is going to have to embrace an electronic medical record," he states.

### **Slow But Steady**

When West Wichita Family Physicians decided to roll out the Pulse Patient Relationship Management system, management made a conscious decision to implement it gradually, one function at a time. "Anyone can buy a system that will provide functionality, but implementation is the factor that can make it or break it," says Zernickow. "We have all the physicians using the system, but we have allowed them to come up gradually. As they become more comfortable with it, they want to learn more and do more."

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However, Zernickow also admits that the corporate structure of the practice has caused some delay in embracing newer technologies. "We have 22 docs and 19 are equal owners of this practice," he explains. "They try to get unanimous support on things, and most of the time it is unanimous support. But because of

that, it slows us down in the implementation." Even so, doctors who began to see the value in using the EMR also began talking about it and showing other physicians how it could save time and improve efficiencies, he says. "The overall feeling is that it's going to be better for the patient."

Total acceptance and usage also means changing certain processes, Zernickow says. "Practices do have processes that are manual and paper-based, and vendors don't always develop products with that in mind. Our choice has been that we will need to first change or replace a manual, paper-based process before driving a function electronically. Replacing an existing process will

allow us to do it with the least amount of resistance,” he says. “It also allows processes to evolve naturally.”

### **Module After Module**

As a result, West Wichita Family Physicians is still running a dual system, using both paper charts and electronic documentation. Part of the reason, though, is the sheer volume of records that have accumulated for nearly 100,000 patients. “We have many patients who have been coming here for 30-plus years and their records are huge,” Zernickow says. “We will retain old paper records indefinitely, but we have begun scanning letters and documentation, so that when we are fully using the EMR, physicians will still have all the pertinent information they need.”

Some processes already have been changed. Patient check-in is a prime example, he says. In a paper-based world, patient charts are pulled when patients check in at the reception area, the physicians are notified, and a chart runner retrieves and distributes the charts to each exam room. “We are replacing that,” says Zernickow.

Now, by using the Pulse Scheduling and PulseMobile modules, patients are checked in by support staff who use PDAs, and the physicians need only view the screens of their tablet PCs to see which patient is in which exam room.



In explaining the methodical way in which the Pulse Patient Relationship Management system was rolled out, Zernickow says the office staff began using the practice management portion of the system first. Two months into that implementation, the Transcription Management module was added. Then, a bidirectional interface was written between the in-house laboratory and the Pulse system, and the Pulse Workflow and Order Management module went live. “We’re just in the beginning phase of implementing the ordering component of the module,” he says.

“In 2002, we started working with Pulse on their PulseRX e-Prescribing module, and we’re getting that implemented,” he adds.

“That was the first function we added for our nursing staff. We stepped into the clinical implementation very slowly,” he reiterates. “We put a workstation at every pod area, and within a month or two, added a workstation for every nurse.” Zernickow also notes that there are no PCs in the exam rooms, but that physicians do bring their wireless tablet PCs with them so they can document the encounter. The decision to purchase tablet PCs was again a way to increase physician participation. “They recreate the feeling the physician has with a paper chart,” he says.



### **The Bigger Picture**

Convincing clinicians at Olmsted Medical Center that an EMR would make them more efficient and be better for their patients required both firmness and understanding, says Schuett. Even though the clinicians had recently become computer savvy, they expressed some resistance when they realized they would now have to employ their computer skills in day-to-day dealings with patients. “They had to be convinced that it would provide better patient care,” she says. “We used many more carrots than sticks, but the message was very strong: The paper chart was going away.”

A major concern among physicians was that keying in data would make them less productive. “In fact, we showed them that individual productivity would not decrease,” Schuett says.

“We set up conference room pilots and did time tests, then asked them, ‘How many clicks does it take to get the information, compared to leafing through the pages of a paper chart?’ The organization has taken a balance sheet approach,” she says. “We worked to help them see the whole balance sheet. We took the big picture and added to it.”

The organization also set up early clinical focus groups so that physicians and nurses “had ownership of process review, their requirements, what they wanted the software to do and what it could do for them,” Schuett says. Using a phased approach in implementing InteGreat’s IC-Chart, Olmsted began with the Base System, which, back in 2001, allowed clinicians to view transcribed documents, lab results and X-ray reports, and also provided secure clinical messaging.

### **Bells and Whistles Are Unimportant**

Schuett recalls that shortly after going live, she met with nurses and discovered they were thrilled at being able to pull up a patient’s chart from the EMR whenever that patient called, and to answer all patient questions while they were still on the phone.

Olmsted also implemented: IC-Imaging, which facilitates the scanning of paper documents into a patient’s record; IC-Encounters, which provides documentation templates; and IC-Script, which enables electronic prescribing. The organization currently is planning the implementation of computerized order entry and charge capture, she says.

While the EMR exceeded Olmsted’s expectations, one of the most significant returns on investment was in time saved by not having to pull charts. Not only did this lead to an initial 40 percent reduction in nursing staff time spent on non-clinician support activities, but it also resulted in the redeployment of two and a half full-time nurses and the creation of a nurse call line which enables patients to call nurses directly for advice, to discuss symptoms or renew prescriptions.

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“We knew patient demand was there for this service, but we couldn’t figure out how to staff it,” Schuett says. “As soon as we implemented the EMR, it was simple.” Schuett also acknowledges that the vendor’s responsiveness and utilization of feedback on the functionality of its EMR product has helped it gain a wider acceptance among Olmsted’s clinicians. “They know that if physicians don’t use it, it doesn’t make any difference how many bells and whistles it has.”

For more information on the **Pulse Patient Relationship Management system**,  
[www.rsleads.com/605ht-206](http://www.rsleads.com/605ht-206)

For more information about **IC Chart from InteGreat Concepts**,  
[www.rsleads.com/605ht-207](http://www.rsleads.com/605ht-207)

For more information about the **e-MDs Solution Series from e-MDs**,  
[www.rsleads.com/605ht-205](http://www.rsleads.com/605ht-205)

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