

EMR Software for Internists: Tips From An Expert

You don't need to digitize all your patient information to take advantage of electronic medical records

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By [Bryan Walpert](#)

Jerome Carter, FACP, knows a thing or two about electronic medical record (EMR) software.

Back in the early 1990s, he wrote an EMR program for his private use while practicing in Atlanta. Today, as director of informatics at the 1917 Research Clinic in the division of infectious diseases at the University of Alabama at Birmingham, he's developing yet another system from scratch. And Dr. Carter, who is the former Chair of ACP-ASIM's Medical Informatics Subcommittee, recently edited a new College book on the subject: "Electronic Medical Records: A Guide for Clinicians and Administrators." The book is scheduled to be released at Annual Session in Atlanta later this month.

ACP-ASIM Observer spoke with Dr. Carter about the pros and cons of using EMR software, questions physicians should ask before buying a system and considerations when choosing a vendor.

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ACP-ASIM Observer: Are EMR packages ready for use in physician practices?

Dr. Carter: From a technology standpoint, available systems are well-designed with reliable functionality. However, the technology requires physicians to make a certain number of adaptations.

For example, data entry is still done primarily via keyboards. Practices that use dictation or rely on some mechanism other than typing to input their data, therefore, usually have to significantly change the way their physicians practice.

Inputting progress notes causes the greatest number of problems and is by far the biggest barrier to EMR use by clinicians. But it is important to understand that 90% of the benefit that you may expect from an EMR can be realized without writing a traditional progress note. The most frequently used portions of the chart note are the medication list, the problem list, lab values and information about preventive medicine. These functions provide real value and don't require an electronic progress note.

Q: So it's not necessary for a practice to go to a full paperless office to use an EMR system effectively?

A: No, but that's the feature usually emphasized by vendors. Going paperless is a lot more complex than simply buying an EMR package. Every bit of patient data has to be put into electronic form. If a practice hasn't budgeted for people to do data entry, going paperless is really a huge stumbling block. X-ray reports, lab results and consultation reports are rarely available in electronic form, and they are good examples of the problems you'll face if your goal is a 100% paperless office.

It's more realistic to take a segmented or modular approach in which you identify the EMR system functions that would really benefit your practice without going totally paperless. For example, you might find that the software can make your practice more efficient or improve patient safety even if you still use paper charts.

Q: What are some of the more important features to look for in EMR products?

A: Drug management is a key element. In most products, the prescription-writing feature allows you to assign a medication to patients, which creates a record in the system of the patient's medication. When the patient calls for a refill, your staff doesn't have to run around the office looking for the chart.

Second, a drug interaction checking system automatically checks that medication against other drugs the patient is currently taking. This feature can prevent potentially harmful interactions.

Third, many systems provide some form of patient education. They let you print out information that is easy to understand and usually written at a fifth- or sixth-grade level. This part of the product explains, for example, a drug's purpose, side effects and how it should be taken.

Preventive health care is receiving greater emphasis, and most EMR systems provide very good support for these activities. Many products also offer referral management features, which help you track how well your patients keep outside appointments.

Finally, telephone management features are becoming more common. Suppose patients called your office and received instructions to come to the office right away or to go to the nearest emergency room. Most practices wouldn't document those conversations. If the patients didn't follow that advice and something adverse happened, you would have no way of proving what you had told the patients. With this feature, however, physicians can be protected from liability due to better documentation.

Q: Have there been any developments to help physicians enter information without typing?

A: Voice recognition software has improved, but most clinicians still do not find it up to par. Voice systems have been used in radiology and emergency rooms for a long time, in part because they're template-based. When those systems move to internal medicine, they are generally received with less enthusiasm.

There are certainly internists who use and love voice recognition systems, but others say they can't get them to work properly. My advice: Before you decide voice recognition will or won't work, give a system a trial run. Most EMR software vendors allow you to integrate voice dictation with their systems, and voice recognition software isn't that expensive.

Pen-based systems also offer a viable alternative, especially when you use pick lists or templates.

Q: How do you feel about packages that you can lease over the Web, through application service providers (ASPs)?

A: I worry about information security. I personally would not use an ASP provider to store my patient data on a public network because I don't have much confidence in vendors' ability to provide an airtight system for something as important as patient data. The security and privacy requirements of the Health Insurance Portability and Accountability Act will make these factors even more important.

There are also new legal issues that have yet to be resolved. For example, if patient data are illegally obtained from an ASP site, is the physician liable for the breach? If hackers can break into Microsoft and download critical data from its Web sites, they can break into anyone's systems.

Q: With all the vendors in the marketplace, do you have any tips for busy practicing internists who are considering buying an EMR package?

A: The EMR market is like a cottage industry. There are plenty of vendors on the market, anywhere from 200 to 250 at one time. The trick is to find out how long a vendor has been around, and how long it will stay in business. Vendors in this industry can disappear overnight.

If you decide that a new vendor has a great product, look into its capitalization. If the vendor is publicly traded, you can get information about their capitalization through a source like Standard and Poor's.

If the vendor is a privately held company, you can ask for a letter of credit from a bank. If Chase Manhattan says the company has access to \$6 million in funds, then the bank is confident that the vendor will be around. It's a proxy measure of a company's financial health. I tend to favor publicly traded companies. The information you want is more readily available.

Consultants can also be helpful in tracking down these data. They often have access to inside industry information that the average clinician does not.

Q: How can physicians know whether it's time for them to use EMR software?

A: My advice is to spend six to nine months studying your practice. Perform a detailed assessment of your information needs, practice habits and business goals. A common mistake is to buy a system and ask the important practice-related questions later. It's usually a very expensive and painful proposition.

Begin by asking this question: What problems do you intend to solve by purchasing an EMR system? What are your goals? The College's new book features chapters that provide specific guidance on all aspects of preparing for and selecting an EMR system.

You need to identify which data items are most important and which processes use those items. Start with the common clinical and administrative processes: writing prescriptions, making appointments, writing referrals and ordering labs. The book provides a map to help with this process.

Q: To what extent does practice size come into play when deciding whether to buy an EMR package?

A: The larger the practice, the more difficult it is to implement an EMR. The costs of both the software and support go up. Also, there are more personalities to deal with and usually more systems that must be integrated with the EMR system.

A solo practitioner can get started by spending \$10,000 to \$20,000. If you have a practice with 20 physicians, you're looking at the million-dollar range. With that size group, you also have to provide for the care and feeding of the system, which means that you probably need to hire information systems professionals. If you have 100 workstations across five sites, your practice needs to dedicate a lot more time to administering the system.

It is essential that all the practice's doctors use the system and all patient information of a particular type is stored in the system. For example, users of the system must be confident that all labs are in the system or that medication lists for all patients are present and accurate. The larger a practice, the harder that becomes, usually because of politics. If only 70% of the patients' data are in the system, users will have to search both the electronic and paper record and you'll end up going back to paper.

Another problem with large groups is that the array of preferences increases and makes settling on an EMR package more difficult. Some physicians want to type their notes, some insist on writing by hand, some want to use voice recognition, etc.

Q: Are there general principles for determining whether a practice could benefit from EMR?

A: One of the reasons I suggest studying your practice before buying a system is that it allows you to determine at what point you can justify the cost of new software. That's the only way to do it. There is no number or formula that can reliably tell you whether an EMR is for you. Whether it saves money or improves productivity depends entirely on the individual practice. Comparing one three-person practice to another is not as straightforward as it seems. Your mileage may vary.

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