<u>**Technology in Your Practice**</u>

Small-Practice EMRs

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Introduction

For many physicians, the paperless, fully computerized office is a dream that always seems 2 or 3 years away. However, despite multiple standards, incompatible software, and fly-by-night vendors, physicians in small practices are increasingly investing in electronic medical record (EMR) systems. Often physicians have no choice but to adopt an EMR if they want to be competitive in the marketplace. However, blindly investing $5000 to $15,000 in a system that doesn't fit the practice can result in financial ruin. This article explores some of the major factors that you should consider when evaluating an EMR for your small practice.

Product Differentiation

In the first generation of computerized practices, clinical data were a distant second to accounts receivables. Physicians in small practices first experimented with computers to streamline their back office. Clinical information was nice, but cash flow was a necessity. Today, there are hundreds of companies scampering for physician's dollars, offering systems that cater to clinical needs as well as cash flow.

Because no vendor can fill every niche, vendors tend to focus on particular areas in which they have a perceived or real advantage. The result has been a differentiation of "medical computer systems" into computerized patient record (CPR) systems, physician practice management (PPM) systems, computerized physician order entry (CPOE) systems, and a plethora of decoupled products, such as scheduling and voice-recognition data entry systems.

Although the capabilities and features of these systems often overlap, most vendors in the EMR (CPR) space provide products that aid in clinical documentation, with a secondary focus on scheduling, physician order entry, decision support, and management reporting (see <u>Table</u>). For the purpose of this article, small-practice EMRs are considered to be systems that are designed for or marketed to groups of less than 10 physicians.

As shown in the Table, the functional components of a typical PPM and EMR overlap in many areas. The point here is that it's critical to know exactly what you're looking for. Perhaps what you really need is marketed under the rubric of PPM, not EMR. For example, perhaps coding is the bane of your existence. If so, then a PPM with coding support may be what you need. It's also important to note that the components in the table are typical. Some vendor out there may offer coding as a part of its core offering, or as an add-on -- for a price.

How Much?

Regardless of the feature set, the bottom line typically revolves around initial and ongoing cost. These in turn depend on the basic architecture of the EMR -- whether it's local or Web-based. A local EMR is a software package that sits on your PC or, more frequently, a dedicated PC (server) in your office. In addition to the cost of the software, which typically ranges from $2000 to $20,000 (purchase or license) for a small-practice system, there is the cost of PCs, maintenance of the hardware, and a maintenance contract for the software (about 30% of the purchase price per year).

A big advantage of a local system is that you're in charge. Want faster response time? Buy faster PCs. Internet connection down? No problem. If you want customized additions, these can usually be had -- for a price -- from consultants or the original vendor. Note that a local system can be Web-*enabled*, which means that it can access resources from the Web, such as an online *Physicians' Desk Reference*. However, the main program runs locally, using local computer resources.

The other major option is to use a Web-based EMR, with prices that start at about $100 per month per physician. Another price model is per transaction, with costs starting at less than $5 per patient encounter.

An advantage of the Web-based EMR is very low start-up costs. All you need is a PC capable of running a standard Web browser and a high-speed connection to the Internet. The Internet speed, not PC performance, is usually the limiting factor. Another advantage of Web-based EMR systems is that the data are available from virtually anywhere -- another clinic, another hospital, at home, or even at your local Starbucks (if you have wireless Internet access). However, response time will be a function of your Internet connection, which can be slow at times of peak Internet use.

You have to have a higher level of trust in a Web-based EMR vendor than you would if you purchased or leased a software package that you would using locally. If your EMR vendor goes into Chapter 11, then patient data on a Web-based system might be unavailable for some time -- maybe months -- until the system is reestablished online. However, if you have the software and hardware running in your office, you can probably keep it going indefinitely with the occasional help of a consultant. Switching systems is a major hassle because of the learning curve involved in adopting any new system.

The Best

I'm frequently asked to identify the best EMR system out there. But there is no best system. It depends on your practice, your budget, and your level of risk aversion. It also depends on your personal style. It's not enough that a vendor provides, say, decision support in its EMR. The decision support feature has to be useful to you -- available when you need it, in the context that you need, and it has to be easy to use.

More check boxes in the functional component list don't make for a better EMR system. Sometimes what's best for a particular small practice is a system that's simple, easy to use, and provides only the core features. Just as you don't have time to learn to use every feature in a complex system, you office staff won't appreciate being forced to navigate through dozens of features that simply get in the way of their work.

The Vendor Game

One of the most frustrating aspects of shopping for an EMR is that vendors long ago realized that word of mouth is worth infinitely more than an expensive glossy ad in a magazine or a gigantic booth at a trade show. As such, most have a program of identifying high-profile practices staffed by "thought-leaders." Vendors pour unlimited resources into getting high-profile systems up and running and keeping them

running -- often at no additional cost to the practice. These practices then become highly publicized references for other physicians.

Often the physicians in these practices aren't even aware of the extra attention afforded them by vendors, and that's part of the game. A sincere referral from a high-visibility physician can be worth millions in future sales. The point is, when shopping for an EMR, don't limit your search to what's being used by physicians affiliated with the Mayo Clinic or Stanford, or by the head of your specialty board. Check out how the relatively obscure physician from Oshkosh has been treated by the vendor.

Take-Away

There is no "best" EMR. It depends on your practice, your work style, patient load, and budget. The cheapest alternative is to use a Web-based product with a pay-as-you-go billing scheme. The downside of these systems is loss of control over the data if the vendor fails, possible downtime because of problems with your Internet service provider, and undesirable feature changes. The upside of these Web-based systems is that you often get to try before you buy, without investing in high-end servers and other hardware.

Resources

If you're serious about finding an EMR system for your practice, a good place to start is the annual Healthcare Informatics Resource Guide. It provides a compendium of vendors and products for clinical practice. Although comprehensive, the functional components and prices are all self-reported, with no independent validation. Another source is Medical Software Reviews, which provides an independent review of EMR systems, among other medical software systems. The downside of this resource is that it's limited to a handful of EMR systems. If you want a hands-on survey of what's out there, then plan to attend the annual HIMSS (Healthcare Information and Management Systems Society) convention this February in Orlando, Florida. It's the largest tradeshow of EMRs on the planet.

Check out these resources for more information:

Healthcare Informatics 2004 Resource Guide
http://www.healthcare-informatics.com/

Health Information Management and Systems Society
http://www.himss.org/ASP/index.asp

Medical Software Reviews
http://www.civicresearchinstitute.com/health/index.html

Tables

Table. Functional Component Comparison, Typical Electronic Medical Record (EMR) vs Typical Physician Practice Management (PPM) System

Functional Component	EMR (CPR)	PPM
Administrative/management reporting	X	X
Audit trails		X
Claims processing		X
Clinical documentation	X	X
Clinically driven billing	X	X
Coding support		X
Contract management		X
Decision support	X	X
Outcomes management	X	X
Patient access	X	
Patient disease registry	X	
Patient education	X	X
Physician order entry	X	X
Referral tracking		X
Registration eligibility referral	X	X
Scheduling	X	X
Specialty clinical software	X	X
Speech-based capabilities	X	X
Supports simultaneous users	X	X
Supports wireless	X	X
Touch screen	X	
Transcription		X
Utilization management		X
Web-based	X	
Web-enabled	X	
Workgroup tools	X	

Products from a given vendor within each category may not offer the components listed, or may offer additional components.

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Disclosure: Dr. Bergeron is on the editorial board of Healthcare Informatics and is a frequent contributor to Medical Software Reviews.