

# Choosing an EHR System

## Chapter FastFACTS

- 1. Analyzing your current operations and business practices and conducting a practice-readiness assessment will prepare you to buy the right EHR for your practice.**
- 2. Determining what information is most useful to you in the exam room will help you pick the right product.**
- 3. Smaller practices may be more likely to be satisfied with their systems than larger ones because they are more involved in selecting them.**
- 4. Experts recommend scheduling between 5 and 10 demonstrations and then trying out any system you're considering.**
- 5. Training and phase-in plans for transferring information can help ease transition to an EHR.**

If you've decided to go ahead and buy an EHR system, it's tempting to begin looking at systems or even buy one based purely on a colleague's recommendation. But experts say that would be a mistake, because you need to find the right system for your practice. It's not one size fits all: Purchasing and implementing a system aren't just about converting paper charts to electronic form; instead, the EHR represents a total shift in the way you deliver patient care, from adjusting how you take notes in the exam room to restructuring the entire office workflow. And now that new government regulations will standardize products to ensure that your system meets meaningful-use

What emerging science says about Fibromyalgia pain:

# It's the neurons talking.



**Fibromyalgia** is a chronic widespread pain condition<sup>1</sup>

## So, why are the neurons talking?

Scientific evidence suggests that Fibromyalgia may be the result of central sensitization. Central sensitization<sup>2</sup>:

- Is believed to be an underlying cause of the amplified pain perception in the central nervous system
- Results from the excessive release of 2 important pain neurotransmitters, **substance P** and **glutamate**

Patients suffering from Fibromyalgia experience a range of symptoms including<sup>3,4</sup>

- **Allodynia**: a heightened sense of pain in response to normal stimuli (eg, a hug or handshake)
- **Hyperalgesia**: an amplified response to painful stimuli (eg, when a small pinprick causes a sharp, stabbing pain)

**When your patients present with chronic widespread pain consider that they may have Fibromyalgia, and help them find solutions for the pain.**

To learn more about Fibromyalgia, visit [www.FibroKnowledge.com](http://www.FibroKnowledge.com)

Listen to pain. Think Fibromyalgia.

References: 1. Wolfe F, Smythe HA, Yunus MB, et al. The American College of Rheumatology 1990 criteria for the classification of fibromyalgia: report of the Multicenter Criteria Committee. *Arthritis Rheum.* 1990;33(2):160-172. 2. Staud R. Biology and therapy of fibromyalgia: pain in fibromyalgia syndrome. *Arthritis Res Ther.* 2006;8(3):208-214. 3. Costigan M, Scholz J, Woolf CJ. Neuropathic pain: a maladaptive response of the nervous system to damage. *Annu Rev Neurosci.* 2009;32:1-52. 4. Costigan M, Scholz J, Samad T, Woolf CJ. Pain. In: Siegel GJ, Albers RW, Brady SJ, Price DL, eds. *Basic Neurochemistry: Molecular, Cellular and Medical Aspects*. 7th ed. Burlington, MA: Elsevier Academic Press; 2004:927-938. 5. Dubinsky RM, Kabbani H, El-Chami Z, Bouthwell C, Ali H. Practice parameter: treatment of postherpetic neuralgia. *Neurology.* 2004;63:959-965. 6. Goldenberg DL, Burckhardt C, Clifford L. Management of fibromyalgia syndrome. *JAMA.* 2004;292(19):2388-2395.

requirements, finding the right vendor comes after determining what you really need. Before you begin shopping around, experts advise taking a step that can make choosing a system easier and the results more effective: Analyze your current operations and business practices.



**"[Physicians] are in a hurry to get the money, but the crux is that you have to use it meaningfully. First and foremost you have to have some discussion about what they want an EHR to do for them, and the physicians must be involved in that discussion."**

**Cynthia Dunn**  
Consultant

Medical Group Management Association

"The potential of using EHRs to deliver great care is significant; but as with any new tool, you can't necessarily deliver healthcare the way you used to—you have to think about what new capabilities the tool brings to your practice," says the AHRQ's Dr. White. "[EHRs] require you to think about changing the way you practice, which is a big deal for people who've gone through decades of training and are very capable in what they do."

### **Avoiding Implementation Pitfalls**

After the stimulus package was announced last year, Cynthia Dunn, a consultant with the Medical Group Management Association's (MGMA) healthcare consulting group, received a flurry of calls from physicians eager to get an EHR right away in order to collect their \$44,000. However, she warns that skipping the preparation stage will lead to implementation problems—for example, physician resistance to using the new product, or unexpected changes in workflow or staff responsibilities that disrupt daily routines. "They are in a hurry to get the money, but the crux is that you have to use it meaningfully," Ms. Dunn explains. "First and foremost you have to have some discussion about what they want an EHR to do for them, and the physicians must be involved in that discussion."

One way to involve physicians or other clinical staff in mid-size to large practices is to find a champion in the office who is willing to devote substantial time to EHR selection and implementation. In a large office, the whole staff can work with the champion; otherwise, it will be up to you or your administrator to assume the challenge.

### Are You Ready?

Once you've taken the pulse of your practice's staff, but before you start looking at specific EHR systems, either you or your accountant should perform a basic business analysis of your practice. This will help create an outline of how your practice currently operates and highlight areas for improvement. Here are some basic questions from the ACP's Center for Practice Improvement and Innovation that can help you assess the business health of your practice:

- **Profitability:** Does my practice generate sufficient income, and is the practice over- or understaffed?
- **Billing and collections:** How effective is my practice's collection process?
- **Service access and availability:** How long do my patients have to wait for appointments compared with patients of other practitioners?
- **Productivity and revenue sources:** How many patients per week do I see compared with the national norm, and is my coding pattern optimal?
- **Production capacity:** Are my patient base, provider schedule, and office space adequate for my practice to be financially successful?

Next AHRQ recommends that you conduct a practice-readiness assessment. Its HIT adoption toolkit includes questions

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about business goals, technology evaluation, and training and support, among others. For another checklist, see “Are You Ready for an EMR?,” p. 30.

“One of the biggest problems I see is that people don’t follow a structured approach or they don’t involve physicians enough or haven’t really thought through their workflows,” says Kenneth



**“Nine out of 10 times, the way physicians select a system is by calling a colleague and, if they like their system, that’s what they buy, too. But it pays to take the time to make a list of the most common problems they see, the information they need immediately, and the actions they have to take.”**

**Samuel R. Bierstock, MD**

President

Champions in Healthcare, Delray Beach, Fla.

G. Adler, MD, medical director of IT for Arizona Community Physicians, a 45-practice group in Tucson, Ariz. “People make the mistake of trying to duplicate flawed paper processes.” As the group’s EHR physician leader, Dr. Adler has been involved in the selection, implementation, and maintenance of an EHR that serves 21 of the group’s office practices. Fifteen more of the group’s practices are planning to convert to EHRs next year.

## **A System That Makes Sense for You**

The best EHR for your practice supports not only the office workflow but also the physician’s “thought flow,” or the way each physician approaches the typical patient encounter. Samuel R. Bierstock, MD, president of Delray Beach, Fla.-based consultants Champions in Healthcare, a health IT consulting company, suggests determining what information is most useful to you in the exam room so that you can pick a product that won’t require you to make seven or eight mouse clicks to get to that information. For example, a pediatrician who frequently prescribes penicillin would want that drug to appear at or near the top of the pop-up list of medications, not down the list according to alphabetical order, he explains.

But that's not the way every system works. "The most common complaint I hear from doctors is that there are too many clicks; it's too hard to get to what they need to see," Dr. Bierstock says. Physicians also complain about "alert overload," when systems deluge them with unhelpful information during a visit, and systems that force them to retrieve lab data and make calculations rather than making the calculations automatically (e.g., determining creatinine clearance or tapering prednisone dosage).

The good news is that systems can be customized to accommodate physicians' thought flow, notes Dr. Bierstock. But that requires committing time up front to analyzing the way you work—something many physicians are too busy to do. "Nine out of 10 times, the way they select a system is by calling a colleague and, if they like their system, that's what they buy, too," he says. "But it pays to take the time to make a list of the most common problems they see, the information they need immediately, and the actions they have to take."

### Time to Select a System

If you've taken all these preparation steps and you know what you need from an EHR system, you are ready to start shopping. Now you're faced with the task of sifting through the hundreds of vendors who now offer EHR products. Experts say that taking the following steps will simplify the process:

- **Narrow the field** initially by looking only at certified products (by CCHIT or another HHS-certified organization) that are guaranteed to comply with the criteria for meaningful use.
- **Decide whether to purchase a server** for your office connected to computers in every room, or to contract with an application service provider (ASP) that will charge you a fee to store and back up your data on a secure Internet server. (CCHIT-certified products are labeled as either ASP or client-server models.)

The ASP model is often more cost effective for small practices because of the expense of purchasing a server and backing up data, says Mark Leavitt, MD, PhD, who retires as CCHIT chair in March. He founded an EHR company before assuming his current position. "All you need are workstations that connect to the Web," he says. "Storage, updating, and backup are all handled by the vendor."

- Think about how you plan to enter and use data**, says Robert Juhasz, DO, medical director of Cleveland Clinic's Willoughby Hills Family Clinic in Willoughby, Ohio. Some systems allow you to have structured clinical data so that you can pull out certain documentation for research, such as smoking cessation, he notes. Other systems allow much more free typing and customized templates. If the system has templates, decide what they should look like and who will modify them. "Will the vendor deliver a set of templates that you modify? How modifiable are they? It's important to have those agreements in place," Dr. Juhasz says. The AHRQ's Health IT Adoption Toolbox provides detailed

## Are You Ready for an EHR?

This is an excerpt from the Texas Medical Association's EHR readiness worksheet. This assessment intentionally does not include a "not sure" option to help avoid "fence-sitting." It notes that any statements with which you disagree or strongly disagree "are red flags that should be addressed and rectified before your organization moves any closer to EHR implementation."

Statement	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
<b>Workflow and Processes</b>				
Current workflow and processes have been identified and documented.				
The organization has identified and prioritized areas where EHR could be best applied.				
Ways in which EHR will improve current workflow and processes have been identified.				
<b>Technology Evaluation</b>				
A list of evaluation criteria was/will be used in the EHR vendor selection process.				
A clinician-defined user interface was/will be a primary consideration in EHR software selection.				

steps on how to vet products, assess vendors, and zero in on products that match your practice's priorities, including setting up a goals list (see "How to Match Your Practice Goals to the Right EHR," p. 32). Refer to that list when you prepare requests for proposals as well as when you evaluate bids from vendors.

### Know What It Costs

A lot of variables will affect how much you'll need to spend for an EHR. For example, the cost may depend on what system (if any) you already have in place and whether you buy everything at once. However, experts generally advise that you not rely entirely on the government's \$44,000 incentive; the total

Statement	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
<b>Technology Evaluation cont'd.</b>				
An IT infrastructure is either in place or under development that will support the processes of the EHR with minimal downtime during its implementation.				
The organization has established service levels that must be met by the EHR system used to deliver patient care.				
<b>Training/Support</b>				
A budget is/will be in place to provide end-user training.				
Training for all user groups has been/will be scheduled well in advance of the final rollout.				
Training includes reference materials that can be used before, during, and after training.				
A budget is/will be in place to provide reasonable coverage for EHR support services.				
Staff is/will be in place to implement, provide support for, and maintain the new EHR system.				

## How to Match Your Practice Goals to the Right EHR

AHRQ recommends formulating personal goals before embarking on a product search, then dividing your goals into the following four categories:

- **Functionality (features):** Includes patient encounter documentation, automating and facilitating office workflow, decision support during patient encounters, reporting that supports care management, and template customization.
- **Usability (speed and ease of use):** Includes frequent tasks that must be done fast, peculiarities of the practice, such as computer literacy, and desired input method.
- **Reputation (company history, longevity, etc.):** How established is the vendor? What sort of relationship would you like to have with the company? Remember that you're not just buying software, you're also forming a relationship with a company whose software will change over time.
- **Practicality (price, interfaces, support):** Includes price, integrated versus interfaced practice management system, interfaces with labs, etc., internal resources needed to customize and maintain the database, etc., and overall support needs.

cost will vary depending on the size of your practice. For example, Family Practice Associates, an 11-physician family practice office with 60 employees in Lexington, Ky, paid between \$15,000 to \$20,000 per physician for EHR software; and they already had the hardware. Consider, too, that you may incur significant annual maintenance costs as well as implementation costs.

Of course, you should factor in your savings—for example, from no longer having to use transcription or billing services; and the number of patients your practice sees may also increase once you have an EHR in place.

## Rating the Vendors

Armed with the knowledge of what you need and a ballpark idea of what you may have to spend, the next step is to factor in other physicians' experiences with their particular EHRs. For example, most family physicians who have adopted EHRs are satisfied with their systems; but only a few vendors were ranked high on training and support, according to a survey published in

the Nov./Dec. 2009 issue of *Family Practice Management*. Nearly 2,000 respondents rated the 20 most commonly used systems on various functions and overall ease of use, vendor support, and satisfaction. Overall, four vendors stood out in the rankings: e-MDs, MEDENT, Praxis, and Amazing Charts. With the exception of MEDENT, these systems cater largely to small practices. All of the respondents that ranked Amazing Charts, for example, were from practices with 10 or fewer physicians.

The authors of the survey report note that physicians in smaller practices may be more likely to be satisfied with their systems than those in larger offices because they are more involved in selecting them. However, they also point out that small practices shouldn't rule out systems commonly used by large practices if they ranked high in the survey. For example, Allscripts Enterprise and EpicCare Ambulatory, used mainly by large practices, ranked higher than some vendors that served mainly small practices.

The authors caution that the survey has several limitations, including the fact that the self-selected participants may tend to be physicians with particularly strong feelings about EHRs. They suggest viewing the results as "an informal collection of responses from several hundred colleagues." To prepare for the task of selecting a vendor, see "Five Questions to Ask EHR Vendors," p. 34.

Several EHR vendors were recognized for outstanding quality and service in the annual healthcare IT rankings issued by KLAS ([www.KLASresearch.com](http://www.KLASresearch.com)), a research firm that measures performance of healthcare vendors. The rankings were based on healthcare providers' evaluations of vendors based on quality, implementation, service, and support. Following are the "Best in KLAS" winners in the ambulatory EHR category, according to client practice size:

- EpicCare Ambulatory (more than 100 physicians)
- eClinicalWorks EMR (26 to 100 physicians)
- Greenway Medical PrimeSuite Chart (2 to 25 physicians)

"The Best in KLAS distinction honors more than just a good product or service," notes Adam Gale, KLAS president, in a news release accompanying the awards announcement. "It represents a commitment to meeting customer expectations in every

## Five Questions to Ask EHR Vendors

Dr. Bierstock of Del Ray, Fla.-based Champions in Healthcare, a health IT consulting company, recommends asking the following questions of EHR vendors you are considering:

- 1. How many clients do you have?** If the company has only 50 to 100 physician clients, it may not be able to afford to maintain certification, which is costly. Companies have to pay an initial fee to become certified and also must pay developers to make changes if they fall short of requirements.
- 2. What support do you provide?**
- 3. How do you make changes or customizations** to the system, and can I make changes myself, or will it require your services?
- 4. What are your key development plans?** For example, are you anticipating progress in content or enhancing the knowledge that underlies the system?
- 5. What are you doing to ensure security** of information and full compliance with the Health Insurance Portability and Accountability Act (HIPAA) and HITECH?

phase of the buying process—from the sales presentation to implementation to ongoing service and support.”

## Assessing the Systems

Reviewing awards and product evaluations is a good starting point, but you still need to test-drive any product that you are considering. Make sure that you invite key staff members, including physicians, to try out the various systems and provide feedback during vendor demonstrations. Experts recommend scheduling between 5 and 10 demonstrations and assessing each vendor based on a standardized rubric. For example, the Community Clinics Initiative’s “EHR Pathways to Successful Adoption” includes an EHR Demonstrations Observation Tool that can help you evaluate vendor demonstrations. It’s available to download free at <http://www.communityclinics.org/content/general/detail/975>. Click on the link, “EHR Starter Readiness Assessment” on page 4 of the guide.

Consider vendors’ financial health when assessing their proposals. As a condition of certification, CCHIT verifies that products are currently in use at multiple locations. However, it’s wise

to go a step further and have an accountant look at the company's financial statements, Dr. Bierstock says. While certification ensures that the product is sound, it does not guarantee the future viability of the company, he notes.

## Overcoming Obstacles

Once you select a system, it's time to address the technical issues in your office. But the real challenges will be training your staff to use the technology, ensuring ongoing IT support, and redesigning your office workflow. "The perceived main obstacle [to adopting EHRs] is financial," Dr. Silver notes. "But I would argue that once you deal with that and get beyond it, the real obstacles are workflow, organization of care, and attitudes."

In addition, some physicians in small practices find it difficult to commit to a team approach to care, says Dr. Silver, who works with practices involved in various quality initiatives, such as a recent medical home demonstration project. "Physicians are used to making all the operational decisions in terms of clinical care and can be overly prescriptive," he says.

Redesigning the office workflow was harder than expected for Dr. Baron, an internist at the now five-physician Greenhouse Internists in Philadelphia, which adopted EHRs in 2004. As he and his partners relate in an August 2, 2005, *Annals of Internal Medicine* article, "Going live rendered everyone in the office incompetent to do their jobs," which in turn produced an anxious, unhappy staff and miffed patients who waited longer than usual for appointments.

Formal training of staff to use both EHRs and the accompanying tablet computers in the exam rooms was crucial in the beginning, Dr. Baron says. Training was divided into "super users," who were taught how to set up and administer the record and

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were given authorization to make structural changes; and regular users, who were trained in basic system operations but could not make structural changes. The super users handled customizing the system and developing work flows. The practice had two days of onsite training with the vendor before the system went live, when everyone committed to stop documenting on paper and start using EHRs exclusively.

That process was harder than anticipated, Dr. Baron reflects. “We had to simultaneously be able to document a phone call and a prescription refill, while figuring out how to handle a lab test and deal with a consult,” he recalls. To allow for the extra work, the physicians reduced their appointment schedules by half during the first three days after going live. It often helps to have a phase-in plan for transferring information and getting rid of paper processes, notes Dr. Adler of Arizona Community Physicians. “With some systems you can turn on functions as you go along. I recommend starting with functions like entering data and scanning and moving on to interactive things like e-prescribing and creating structured notes,” he says. See “Your Role in Transferring Chart Information,” opposite.

The transition can be difficult, says W. Jeffrey Foxx, MD, a founding partner at Family Practice Associates, Lexington, Ky., which not only uses EHRs but also maintains a fully interactive Website with a secure patient portal and the capability to conduct virtual visits. “The learning curve on an EHR is about the hardest thing I ever did,” he says. “It changes how you do everything, and it’s very time consuming.”

Unlike digitized records, an EHR system requires knowing where and how to document and find information, all while paying attention to the patient in the exam room, Dr. Foxx says. “It took me at least six months to feel comfortable with it, and I’m still learning things.”

Because of the transition issues—and resistance, at times—it may be tempting to let some staff members continue with old processes. But opting out doesn’t work in the long run. If some physicians continue to dictate and transcribe notes instead of typing them into an electronic template, for example, you end up wasting money on transcription costs and using the system ineffectively.

The long-term payoffs are worth the short-term hardships, Dr.

## Your Role in Transferring Chart Information

Transferring clinical information from paper charts to the new electronic record may seem like a mundane administrative chore, but experts say it's important for physicians to be personally involved.

"Staff can help in a lot of areas; but three main things have to get into the EHRs: problem lists, medication lists, and allergy lists," says Dr. Adler of IT for Arizona Community Physicians. "The medication and allergy lists can be copied over from the paper charts by a medical assistant, but the problem list is an important piece that usually has to be done by the physician—if they leave it up to someone else, they may be unhappy with the results."

At Cleveland Clinic's Willoughby Hills Family Health Center in Willoughby, Ohio, medical assistants made a preliminary transfer of data, such as smoking and other social information and family history, to the electronic record before the patient came in for a visit. That allowed the physician to focus on more complex clinical information, such as problem and medication lists, explains Dr. Juhasz of the Willoughby Hills Family Clinic.

There is a silver lining to the considerable time physicians invest in transferring information, says Dr. Adler, who went through the process in his own practice, Desert Star Family Health, more than five years ago. "I found that by putting that extra review and effort into each chart, I got to know my patients better; I got a deeper understanding of each patient," he explains. In addition, he notes the advantage of taking the time to transfer problem lists personally: "If you're e-prescribing and you don't have accurate problem lists, then you don't have the benefit of checking drugs against certain diseases for contraindications or alerts."

Dr. Baron agrees that the time invested up front is well spent. "The first time you get a call from a patient who needs nine refills and all the drugs are in the record and all you have to do is click some boxes, you think you've died and gone to heaven," he says.

Foxx says. "We can access information easier and remotely," he explains. "We get better reports on disease management more easily, and the system is better at keeping problem and medication lists."