Electronic health record (EHR) software selection and purchase

Understand practice needs and evaluate readiness for selection and purchase.

How will this module help me select the right software vendor?

1. Strategies and tactics to simplify software and vendor selection
2. Five steps to assist in successful selection and purchase
3. Answers to common questions and concerns
4. Tools to measure practice need and readiness
Increasing administrative responsibilities—due to regulatory pressures and evolving payment and care delivery models—reduce the amount of time physicians spend delivering direct patient care. Technology can make some processes more streamlined (e.g., billing and accessing patient historic data), and it can also make certain processes more cumbersome (e.g., documenting a multifaceted patient visit). Deciding to use an electronic health record (EHR) in the clinic setting can be a challenging conclusion for physicians. Pressures from government and regulatory agencies continue to grow as technology becomes an increasingly important element of providing safe, high quality patient care. EHR selection and purchase will guide physicians and their teams through the process of choosing which EHR will work best for their practice and patient needs.

**Electronic Health Record Selection and Purchase**

**Release Date:** March 2015  
**End Date:** Ongoing

**Objectives**
At the end of this activity, participants will be able to:
1. Select and purchase a new EHR  
2. Identify local resources that can assist with the selection process  
3. Prioritize practice and patient technology needs  
4. Evaluate vendors and EHRs based on practice priorities  
5. Determine financing options for purchasing the EHR

**Target Audience**
This activity is designed to meet the educational needs of practicing physicians.

**Statement of Need**
Electronic health records (EHRs) have become commonplace in physician practices over the last decade. However, they have not always made practices function more cohesively or increased the quality of care that physicians are able to provide to patients. Usability and integration issues with other systems, hospitals, referring physicians and external departments can cause care provision to be slow and cumbersome. EHR selection and purchase will help physicians and their teams prioritize their needs and their patients’ needs to make the best EHR choice for their practice. Selecting the right EHR for the practice will enable the technology to be leveraged to provide the highest quality, safest patient care possible.

**Statement of Competency**
This activity is designed to address the following ABMS/ACGME competencies: practice-based learning and improvement, interpersonal and communications skills, professionalism, systems-based practice, interdisciplinary teamwork, quality improvement and informatics.

**Accreditation Statement**
The American Medical Association is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

**Credit Designation Statement**
The American Medical Association designates this enduring material for a maximum of 1.0 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Claiming Your CME Credit**
In order to claim AMA PRA Category 1 Credit™, you must 1) view the module content in its entirety, 2) successfully complete the quiz answering 4 out of 5 questions correctly and 3) complete the evaluation.

**Planning Committee**
Kevin Heffernan, MA – AMA CME Program Committee  
Michael Hodgkins, MD, MPH – AMA Vice President and Chief Medical Information Officer, Professional Satisfaction and Practice Sustainability, AMA  
Ellie Rajcevich, MPA – Practice Development Advisor, Professional Satisfaction and Practice Sustainability, AMA  
Sam Reynolds, MBA – AMA Director, Professional Satisfaction and Practice Sustainability  
Christine Sinsky, MD – Vice President, Professional Satisfaction, American Medical Association and Internist, Medical Associates Clinic and Health Plans, Dubuque, IA  
Rhoby Tio, MPPA – AMA, Senior Policy Analyst, Professional Satisfaction and Practice Sustainability

**Author(s)**
Michael Hodgkins, MD, MPH – AMA Vice President and Chief Medical Information Officer, Professional Satisfaction and Practice Sustainability, AMA  

**Faculty**
Kenneth Adler, MD, MMM – Chief Medical Officer, Arizona Community Physicians  
Cynthia Brown – AMA VP, Government Affairs  
Marie T. Brown, MD, FACP – General Internist, Rush University Medical Center  
Jennifer Brull, MD, FAAFP – Family Physician, Post Rock Family Medicine  
Robert Hash, MD, MBA – AMA Assistant Secretary, Liasion Committee on Medical Education, Associate Director, Undergraduate Medical Education, Medical Education  
Thomas P. Healy, JD – AMA, Vice President and Deputy General Counsel  
Michael Hodgkins, MD, MPH – AMA Vice President and Chief Medical Information Officer, Professional Satisfaction and Practice Sustainability, AMA  
Wyatt Packer, MHA – Program Director for the NV-UT Regional Extension Center for Health IT, HealthInsight  
Jeffrey Panzer, MD – Medical Director, Oak Street Health  
Ellie Rajcevich, MPA – Practice Development Advisor, Professional Satisfaction and Practice Sustainability, AMA  
Sam Reynolds, MBA – AMA Director, Professional Satisfaction and Practice Sustainability  
Christine Sinsky, MD – Vice President, Professional Satisfaction, American Medical Association and Internist, Medical Associates Clinic and Health Plans, Dubuque, IA  
Christian Tashjian, MD, FAAFP – Family Physician, Vibrant Health Family Clinics  
Rhoby Tio, MPPA – AMA, Senior Policy Analyst, Professional Satisfaction and Practice Sustainability  
Matthew Wynia, MD, MPH, FACP – AMA Director, Physician and Patient Engagement, Improving Health Outcomes

**About the Professional Satisfaction, Practice Sustainability Group**
The AMA Professional Satisfaction and Practice Sustainability group has been tasked with developing and promoting innovative strategies that create sustainable practices. Leveraging findings from the 2013 AMA/RAND Health study, “Factors affecting physician professional satisfaction and their implications for patient care, health systems and health policy,”
and other research sources, the group developed a series of practice transformation strategies. Each has the potential to reduce or eliminate inefficiency in broader office-based physician practices and improve health outcomes, increase operational productivity and reduce health care costs.

Disclosure Statement
The content of this activity does not relate to any product of a commercial interest as defined by the ACGME; therefore, neither the planners nor the faculty have relevant financial relationships to disclose.

Media Types
This activity is available to learners through Internet and Print.

Bibliography
AMA. Health information technology. April 2011.
What is EHR software selection and purchase?

This module outlines step-by-step strategies that can ensure successful selection and purchase of an EHR for your practice. It includes comprehensive assessments for evaluating readiness for EHR adoption, understanding practice needs and selecting the right EHR vendor.

Determine which EHR is best for your practice

There is no “one size fits all” approach to EHR adoption. The strategies presented in this module are intended to help physicians and staff make informed decisions about their EHR selection.

Q&A

Physicians in our practice are concerned that EHR adoption will negatively affect patient care. Why should we still consider it?

EHR adoption will undoubtedly change the practice by altering the current routines/workflows of physicians and staff. Adoption of EHRs provides a unique opportunity to 1) redesign the way patient care is provided in your practice and 2) electronically integrate with other departments (e.g., laboratory, radiology or pharmacy) as well as other physicians who provide care to your patients.

I hear that current EHRs have integration issues. Rather than waiting for these issues to be resolved, what are ways to mitigate these concerns when adopting an EHR?

Before purchasing an EHR, the practice should evaluate their needs, explore different EHR vendors and their products and confirm that the EHR the practice selects will have the necessary capabilities for future integration. The practice can work with external stakeholders such as local hospitals and laboratories to ensure that their EHR selection is compatible with other systems. Even after installation, the practice may continue to work with the EHR vendor to optimize the system.
Five steps to a successful EHR selection and purchase

1. Use resources to make an informed decision

Seek help to make an informed decision about EHR selection and purchase. Below are available resources to consider:

- Regional Extension Centers (RECs) can help physicians select, implement and demonstrate meaningful use of certified EHR software technology. They provide education, outreach and technical assistance to physicians in their service areas.
- Colleagues who have adopted an EHR can share experiences to help set and manage expectations.
- Local hospitals where physicians have privileges may provide special deals for purchase, service and support.
- National and specialty associations may offer guidance specific to the physician practice.

Q&A

Where can I locate the nearest REC?

The Office of the National Coordinator for Health Information Technology (ONC) has compiled a list of the current RECs across the country.

2. Determine practice needs

There are two strategies for determining practice needs: measuring level of preparedness among physicians and staff and prioritizing practice needs.

Measure level of preparedness

Circulate a readiness survey among staff to determine the state of health IT adoption, prerequisites for change, potential barriers, user needs, time-sensitive factors and appropriate next steps.
Q&A

Should our practice still consider adopting an EHR if results from the health IT readiness survey indicate that we are not ready to do so?

Yes, although not immediately. The practice should remain open to adopting an EHR in the future. Results from the health IT readiness survey can help physicians and staff identify aspects of the practice that need to be cultivated to increase or accelerate the level of preparedness. Staff meetings can serve as a platform for learning more about EHR options and discussing any reasons for reluctance to adoption. This type of team engagement activity can increase stakeholder buy-in, which is critical to a successful EHR adoption.

Prioritize practice needs

Use a needs assessment to determine the most important and relevant characteristics of an EHR system for the practice. It can be helpful in determining whether EHR components/modules or a complete EHR software application is more appropriate for the practice. Identify critical areas of the practice that need to be prioritized as the practice begins using the new EHR.

Before completing the needs assessment for the practice, consider:

- **Listing health IT currently used in the practice to select an EHR that has sufficient interoperability.** Some practices already use a variety of health IT for managing patient information and medical care, such as e-prescribing and practice management systems (PMS). Without sufficient interoperability, physicians and staff could perform redundant administrative work. For example, choosing an EHR that doesn’t integrate with your PMS technology might require duplicate data entry or that reports be generated from separate systems. EHR vendors will be able to provide information about the compatibility of their product with other systems.

- **Identifying health IT currently used by network providers and health care partners to select an EHR that can integrate or communicate with other systems.** Without this capability, some paper-based processes will remain unchanged even with an EHR. For example, instead of transmitting laboratory tests and referrals electronically, physicians and staff will still need to send them via fax.

- **Exploring local hospitals and health care systems that may be interested in partnering with the practice.** They may prefer a certain type of EHR and may be willing to subsidize and/or assist with adoption. Partnering with other groups may help the practice negotiate a lower-cost option.

Q&A

Should we consider adopting an EHR if we will not qualify for Medicare or Medicaid EHR incentives?

Yes. Regardless of the patient payment composition, practices that adopt an EHR may qualify for future reimbursements that may require data that can only be collected via health IT applications. To evaluate eligibility for current incentive programs, the Centers for Medicare & Medicaid Services developed a [Stage 1 Meaningful Use Attestation Calculator](http://www.cms.gov) that will allow practice staff to determine their eligibility for incentives in the upcoming years.
Determine EHR requirements

Select the type of EHR software and server host that will work best in the practice. Selection should be based on practice needs that are driven by current patient payment composition, level of preparedness and practice priorities.

A Choose between a modular and complete EHR

Decide whether to purchase a modular or complete EHR (see Figure 1). Some practices may want to purchase a complete EHR to attain the full benefits of replacing the paper chart, while others may only purchase the modules necessary to meet the requirements for meaningful use (e.g., order entry, patient education and patient portal). For example, physicians and staff that are satisfied with their current PMS and other components, such as e-prescribing, may add modules rather than replacing the existing system.

Figure 1. Two types of certified EHR technology

Source: AMA. Health information technology. April 2011.

B Select a server host

Determine where practice and patient information will be hosted. There are three hosting options: self-hosted, software as a service (SaaS) and outsourced (see Figure 2). In the self-hosted option, the server is housed in the practice and managed by practice staff. In the SaaS-hosted option, also known as cloud-based EHR, the physician practice accesses the software through the Internet. There is no need to maintain, update or own the software. In the outsourced option, the server resides at the application service provider (ASP) location that is managed by a third party. The ASP may offer services such as software support, data backup and disaster recovery. The EHR vendor may offer this option or have a partner who does. Each of the three server hosting options has advantages and disadvantages.
Select an EHR vendor

Select a vendor that meets the needs of the practice. To do this, the practice must actively explore potential vendors, arrange vendor demonstrations to learn more about their product(s) and services, obtain proposals to better assess vendor capabilities and evaluate vendors to facilitate selection.

A. Explore potential vendors

Gather information and learn about different vendors. Some practices contact colleagues who have adopted an EHR for vendor referrals and/or to inquire about their experience selecting and working with the vendor. Other practices conduct phone interviews to learn more about what each vendor has to offer. There are also practices that conduct online research. The ONC website is one that may be valuable to explore because it has a comprehensive list of certified health IT products that the practice can consider.

B. Arrange vendor demonstrations

Schedule vendor demonstrations to help physicians and staff test and evaluate the alignment of the EHR product with the needs of the practice. To optimize the vendor demonstration experience, some practices provide vendors several workflow scenarios that are critical to their operations. This allows the vendor to customize their presentation and product demonstration.
What are EHR applications or apps?

In general, EHR apps are designed to allow you and your patients to use the data stored in an EHR in different ways. Just as the apps on your smartphone or tablet let you customize how you use those devices, EHR apps provide features and functions that are not already part of your EHR. For example, some apps allow you to visualize data in new ways while others help you create reports or connect to new sources of information. However, it is important to note that not all apps are created equal. Many apps will only work with a given vendor’s proprietary EHR products. EHR “smart” apps, on the other hand, which share a new technology with certain participating EHR developers, can run across different EHR platforms and products that use this new technology. Apps that run across different EHR platforms are also referred to as reusable.

Do all EHRs support apps?

No. Some EHRs allow the use of a select group of apps, with this group differing by vendor. Most EHR apps will in fact only work with that vendor’s EHR products, and sometimes not even across the vendor’s different versions of software. Some EHR developers are adopting a new technology that allows the same app to run across different vendors’ EHRs. These reusable, interoperable “smart” apps make it easy to have the same EHR experiences—indeed, independent of vendors or medical facilities—at all points of contact.

How do I know if my EHR supports reusable, interoperable “smart” app technology?

The only way to know if your EHR supports or will support the advanced reusable, interoperable “smart” app technology is to ask your vendor. For specific questions to ask vendors, download the reusable, interoperable “smart” RFP document. These same questions are also appropriate and valuable to ask if you are considering purchasing or upgrading an EHR. Remember, while some EHRs offer apps already, many of these apps are built only for that particular EHR product and do not incorporate emerging “smart” app technology. With the adoption of this new technology, EHR developers and vendors are taking an important step forward in improving the usability and interoperability of their products and systems.

Is there an “app store” for reusable, interoperable “smart” apps?

Yes. Smart Health IT, which is an open, standards-based technology platform, is the nonprofit group behind this new generation of interoperable “smart” apps that are reusable and interoperable. Visit gallery.smarthealthit.org to see their “app gallery”, which showcases some of the advanced uses of this new technology.
Obtain EHR vendor proposals

Request proposals from the top three to four prospective EHR vendors. The practice may develop and distribute a request for proposal (RFP) to the vendors that clearly outlines EHR requirements and criteria for selection.

Evaluate EHR vendors

Determine the capabilities of the EHR vendors’ products and services, and evaluate the level of alignment with the needs and priorities of the practice. Some practices use a vendor evaluation matrix to assess EHR usability characteristics and functions offered by each vendor. Examples of functions and characteristics include charting, prescription management, clinical tasking, orders and results management, decision support and health record management. Physicians and their staff may learn that some vendors have richer content, such as progress note templates or decision support logic. Some physicians and staff conduct site visits to practices that have successfully implemented similar systems. Visiting practices with a mature EHR is helpful for comparing services and overall product functionality.

Q&A

Are there tools for evaluating EHR usability characteristics and functions?

Yes. The Health Information Technology Research Center (HITRC) and the Vendor Selection and Management Community of Practice have developed an EHR Evaluation Matrix Tool, which can be useful for comparing vendors that best align with the priorities of the practice.

Assess financial capabilities

Assess financial capabilities to better select an EHR that can create long-term practice sustainability. To do this, the practice must determine the cost of total ownership, explore financing options and conduct due diligence.

Determine costs

Determine the total cost of ownership to assess the impact of each EHR option in the practice. This involves calculating:

- The capital cost of hardware and software licenses, such as desktop computers and mobile workstations
- Ongoing expenses such as software maintenance and/or service fees
- The cost of physician and staff time and materials needed to learn new system features and implement practice-wide procedures
- The expense of an implementation support provider that can help physicians and staff effectively and efficiently use the new EHR during adoption
Q&A

What is the typical cost of purchasing and installing an EHR?

According to the ONC, EHR purchase and installation can cost $15,000 to $70,000 per provider. The Michigan Center for Effective IT Adoption, one of the RECs funded by the ONC, developed a chart that provides estimated average upfront cost, annual cost and five-year total cost of ownership for both self-hosted and cloud-hosted EHR servers. According to their estimates, a self-hosted option averages $33,000 in upfront costs and $4,000 in annual costs while an SaaS option averages $26,000 in upfront costs and $8,000 in annual costs.

B Explore financing options

Explore options for financing the EHR purchase. Some states offer low interest loans and local banks may offer business loans. Vendors sometimes offer low- or no-cost financing. Local foundations may provide grants. In addition, local hospitals and health care systems that are interested in partnering with the practice might consider subsidizing or assisting with implementation.

C Conduct due diligence

Conduct due diligence before signing the vendor contract. EHR vendors may not clearly define the total cost of an EHR purchase. Rather, they may charge numerous fees for specific products and services. Therefore, it is important for the practice to thoroughly review the vendor’s contract. The Texas Medical Association has compiled a list of fees to watch for when reviewing the EHR contract. These are:

- Licensing fees
- Equipment and third-party software fees
- Maintenance fees
- Professional services fees
- Implementation services fees
- Interface fees
- Fees for additional features

In addition, there may be fees associated with software fixes, upgrade charges and customization charges to fix problems or make the EHR more usable. It is strongly recommended that the practice defer to an attorney who can help ensure the practice is protected in the event something goes wrong with the purchase and that an exit clause protecting the practice’s interests is clearly outlined.

Once the EHR is purchased, the practice can start to look forward to implementing the new system.
Conclusion

Selecting the right EHR software and vendor requires careful consideration about your practice’s needs, EHR requirements and budget. Using this module as a guide will help you make informed decisions to ensure that you purchase the right EHR system for your practice.

To demonstrate completion of this module and claim AMA PRA Category 1 Credits®, please visit: www.stepsforward.org/EHRSoftware

Get implementation support

The AMA is committed to helping learners implement the solutions presented in this module. If you would like to learn about available resources for implementing the strategies presented in this module, please call us at (800) 987-1106 or click here to send a message to StepsForward@ama-assn.org

References


