

EHR 101

A Guide to Successfully Implementing Electronic Health Records

An EHR is one of the best business and clinical investments that a practice can make.

Electronic health records are the inevitable next step in the continued progress of U.S. healthcare. Medicine may be the most information-intensive of all professions, and is well poised – after many false starts – to take advantage of the advances in information systems technology that have transformed our society.

Successfully making the transition to electronic health records may be the most important project that a medical practice can undertake. It's important because an electronic health record (EHR) system directly affects the daily mission of medical practices — delivering patient care. An EHR is unique in that it touches the lives of the healthcare providers, the administrative staff behind the scenes and the patients themselves.

Because the affect of an EHR reaches deep into the heart of the practice, the stakes are high. While a successful EHR project has the potential of significantly improving the clinical and administrative efficiency of medical practices, as well as enhancing overall quality of care, an unsuccessful project can be frustrating and expensive.

At McKesson, we have been successfully building and installing EHR systems for ambulatory medical practices for more than 20 years. Success is a logical, systematic process; it does not happen by accident. Based on our experience, we have compiled this document as a guide to help you successfully plan your EHR project.

Consideration of Electronic Health Records

Let's start at the beginning. Consider these basic but very important questions before proceeding with your EHR project.

What is an electronic health record (EHR)?

An EHR is a software system that allows you to create, store, edit and retrieve patient charts on a computer. A successful EHR project allows a practice to replace its paper charts with electronic charts. Electronic charts offer tremendous productivity and efficiency benefits to a practice. By storing all the data you previously recorded in the patient's paper chart, an EHR replaces the racks of chart folders with a computer.

What are the benefits of a successful EHR implementation project?

An EHR is one of the best business and clinical investments that a practice can make. Broadly speaking, there are four main benefit categories:

1. Cost reduction. The productivity and efficiency gains of an EHR should result in lower costs in the following areas:

- *Transcription costs*
- *Labor costs*

- *Internal and/or external copying expenses*
- *Malpractice insurance costs*
- *Pharmacy costs*

2. Revenue enhancement. An EHR can affect the top line of a practice by improving the completeness of documentation and the accuracy of coding, increasing the number of services offered and increasing the number of visits per day. (For example, Practice Partner® Patient Records, McKesson's fully integrated electronic health records system, features built-in age- and gender-specific reminders for the practice and patients to complete routine procedures, such as mammograms.)

3. Improved administrative efficiency. Successful EHR sites are more efficient than traditional offices. As a result, the number of FTEs required to support physicians is lower than paper-based offices. Sites using Practice Partner Patient Records report 2.0 to 2.5 FTEs per doctor, compared to the MGMA® (Medical Group Management Association) average of 4.0. These improvements can be attributed to the following:

- *Fewer chart pulls and less filing*
- *Universal access to the chart (by more than one person at a time) and less searching for lost charts*
- *Improved internal office communication*
- *Fewer call-backs from pharmacies*
- *Easier compliance with chart requests and chart audits*

4. Improved clinical efficiency, patient care and service. The EHR itself includes a number of features that allow the clinical side of the practice to operate more efficiently. Some of the improvements include:

- *Higher quality documentation (legible, organized and complete)*
- *Built-in protocols and reminders (including health maintenance)*
- *Improved medication management*
- *More efficient signing of charts*

For more detailed information on the benefits described above, please see the McKesson White Paper titled "The Dollars and Sense of Electronic Health Records: The Bottom Line Case for an EHR."

Since an EHR provides universal access to patient charts, it can vastly improve the workflow in your office by eliminating the time-consuming process of creating, finding and refiling paper charts.

What is the typical EHR configuration?

The most common configuration of an EHR is to have PCs in the exam rooms, doctors' offices, nurses' stations and at the check-in desk. These PCs are networked together and linked to a common server.

This configuration gives both administrative and clinical staff easy access to workstations and the EHR. A less common configuration includes the use of wireless laptops. Wireless laptops are typically used solely by the physician in conjunction with networked PCs. Wireless technology allows a practice to purchase fewer PCs, however it does require an additional investment in wireless networks.

How will an EHR affect the day-to-day workflow of my office?

Since an EHR provides universal access to patient charts, it can vastly improve the workflow in your office by eliminating the time-consuming process of creating, finding and refiling paper charts. This universal access makes many of the day-to-day activities of the practice, such as prescription refills or refill authorizations, patient callbacks and outside requests for charts, much easier. The patient can move smoothly from the check-in process to the nurses' station for vital signs and into the exam room without a staff member ever having to carry a paper chart. Administrative staff, such as billers or transcriptionists, also benefit from universal access to charts.

How much interaction do physicians actually have with the EHR and how much keyboard and data entry activity is required?

Once an EHR is established in the clinic, it becomes the focal point of all clinical documentation and will be the most commonly used computer application by physicians during their normal workday. The amount of keyboard and data entry activity required is variable according to the EHR software vendor and physician preference. Practice Partner Patient Records is designed to minimize the need for keyboard interaction, if that is the preference of the physician. At a minimum, physicians will be required to directly use the computer to open and view patient charts and to write prescriptions. In both cases, only basic computer or typing skills are required.

How are progress notes created?

The way in which progress notes are created varies among different software vendors. Practice Partner Patient Records allows progress notes to be created in the following ways:

Clinical templates. These represent pre-formatted progress notes that provide a standard protocol for documenting specific conditions. They allow for "point and click" entry or keyboard entry based on possible conditions that might be observed for a given patient. Templates represent a direct entry mode in which data is entered directly by the physician into the computer. Most Practice Partner Patient Records customers use templates in

conjunction with QuickText. QuickText is a tool which allows you to add commonly used clinical words, phrases, comments, sentences, and even paragraphs of up to 1,000 characters of previously defined text into a progress note with a push of a button. Additionally, the Practice Partner Patient Records application includes insert codes that automatically pull data from other parts of the chart (i.e. medication list, allergies, social and family history, problem list, etc.) into the current progress note. The overriding design philosophy is to allow physicians to focus on data selection as opposed to data creation.

Practice Partner Patient Records provides very detailed security and privilege levels, defining specific viewing, data entry, editing and a myriad of other rights on an individual basis.

Dictation. Many physicians using Practice Partner Patient Records, even after successful transition to an EHR, continue to prefer the familiarity of dictation as a means of creating progress notes. A unique feature of Practice Partner Patient Records is that the transcribed note automatically updates all relevant portions of the chart, such as medication lists, problem lists, vital signs, lab results and allergies, from the data included in the progress note. In contrast, many systems store transcribed notes as a block of text without import or export of data items contained within the note. The benefit of transcription is that it allows physicians who are reluctant or uncomfortable with direct entry to fully embrace the EHR.

Voice recognition. Voice recognition offers the promise of reducing the need for keyboard entry while providing a cost-effective alternative to traditional transcription. Recent technological advances make voice recognition a viable means of data entry for certain practitioners.

How secure is an EHR?

EHR security is ensured by network access limitations and individual access levels. An EHR system should offer highly granular security, allowing system administrators to define access and privileges according to the respective roles of the office staff. For instance, Practice Partner Patient Records provides very detailed security and privilege levels, defining specific viewing, data entry, editing and a myriad of other rights on an individual basis.

Is the record legally valid?

Yes, vendors that are CCHIT certified provide an electronic health record that is a complete, medically legal record with an audit trail, allowing practices to track all changes to any textual record (progress notes and other clinical documents). This audit trail ensures document integrity within the organization and validates the record for medical legal purposes.

What happens if the system goes down? What do I use for backup?

A standard part of any EHR installation is system backup. The backup involves copying the patient charts to a specialized storage medium such as DAT (digital archive tape), which is then stored offsite. In the event there is a system downtime that results in loss of data, patient information can be restored from the tape backup.

The success of an EHR is directly correlated to the ability of a practice to effectively transition the majority of its clinical documentation from paper-based systems to electronic systems while still maintaining physician productivity.

Making the Project a Success

Defining the goals of an EHR implementation and preparing a plan to achieve the goals are critical to the success of the project.

What is the appropriate measure of success of an EHR project?

The success of an EHR is directly correlated to the ability of a practice to effectively transition the majority of its clinical documentation from paper-based systems to electronic systems while still maintaining physician productivity.

At McKesson, our most successful sites have significantly reduced or eliminated paper-based recordkeeping in favor of electronic media. These sites, which we call “paperless,” also derive the greatest economic benefit from an EHR, since they have dramatically reduced the time, labor and overhead associated with maintaining paper-based charts. The least efficient means of deploying an EHR is to run dual systems — maintaining both an EHR and a paper chart. Dual systems actually require additional labor, since two separate charts must be maintained.

How do I go paperless?

Going paperless is a step-by-step process that involves the following elements:

Utilizing the EHR as the primary means of clinical documentation.

Progress notes, prescriptions, vital signs, nurses’ notes and all other hand-written or transcribed documentation should be entered into the EHR.

Establishing interfaces (particularly lab). Interfaces allow information from either clinical or administrative sources to be loaded directly into the electronic health record, eliminating the need for manual entry of these values.

Establishing scanning protocols. Some relevant clinical documentation will arrive via paper. These documents can be scanned and converted to text (using optical character recognition software) and then loaded into the chart. Our most successful Practice Partner Patient Records sites are careful to scan only those documents that are considered essential to the record.

Using clinical tools that support a paperless environment. For instance, PC-based 12 lead ECG machines are available that can display, store and interpret a patient’s heart rhythm on a computer. This device eliminates the need for scanning or storing paper ECG readouts and provides universal access to historical ECGs.

Retiring your existing charts in a steady and methodical fashion.

It is not necessary or practical to eliminate your paper charts from day one. Successful Practice Partner Patient Records customers have tackled the transition by:

- **Summarizing the salient points of the paper chart for entry into the EHR.** This summary typically includes problem lists, allergies, current medications, selective lab results and the most recent progress note. These summaries can either be transcribed and then downloaded into the chart or entered into the chart directly as you summarize.
- **Being selective about which charts to summarize.** Some Practice Partner Patient Records clinics will summarize the paper charts as patients make appointments. Others will select their high frequency patients. In either case, it is a methodical process accomplished over a 6- to 12-month period, depending on patient volume. The summarized paper charts are then typically archived off site.

The best way to increase acceptance among physicians is to minimize the amount of change required in daily workflow patterns.

How do I build support from the doctors in the practice who are reluctant to use an EHR?

The best way to increase acceptance among physicians is to minimize the amount of change required in daily workflow patterns. For instance, physicians who are hesitant to use the keyboard to directly enter notes should be allowed to continue to use dictation as a means of data entry. For those who are going to utilize direct entry, the EHR system should be flexible enough to accommodate the physician's personal documentation style, without requiring extensive or complex programming. With the Practice Partner Patient Records system, personal styles can be accommodated through the use of clinical templates or QuickText macros that can be readily modified using basic word processing skills.

Preparing Your Organization for Electronic Health Records

Both the office and the staff must be prepared for the transition to a new system. The following are a few steps to ensure your organization the smoothest possible transition to the EHR.

What will I need to purchase?

Deploying an EHR involves purchase of the following items: EHR software and related accessories. As a networked application for multiple users, an EHR system is typically sold on a per provider basis. In addition, an EHR typically offers software accessories such as patient education, drug-to-drug/drug-to-food/drug-to-allergy checking, and formulary checking (determines whether prescriptions comply with a patient's insurance formulary). These accessories are typically sold on a subscription basis since the information is dynamic and routinely updated.

Hardware and networks. An EHR requires that a site install a network of PCs that seamlessly communicate with each other. The network consists of the individual PC workstations; a server, which is the main computer for storing patient data and allowing communication between the PCs; the operating systems, such as Novell® or Windows NT® necessary to run the network; and the various hubs, network cards and wiring that connect everything together. In addition, the site will purchase printers, scanners and backup devices.

Services. An EHR represents a capital improvement project that will require the assistance of experts. Most projects require implementation and training services, consisting of project planning, customization and education on the application to prepare the office for the new software. These services generally are offered by the EHR vendor. In addition, hardware and network services are required to ensure the successful deployment of the network.

Support. You will need to maintain technical support contracts for both hardware and software. Technical support for software is sold and renewed on an annual basis and is typically priced as a percentage of the total price of the software. For most EHR vendors, the support contract provides the help desk function – the ability to call the vendor’s technical experts – and software updates, which are new versions of the software that provide improved performance and additional features.

Is there a way to save my clinical documentation before going live with an EHR to ease the transition from paper?

For potential Practice Partner Patient Records sites that are currently using transcription for clinical documentation, we recommend specific, easy-to-use formatting of transcribed notes so they can easily be downloaded into the EHR. Using specific, easy-to-use formatting will also enable you to create a complete chart (i.e. medication list, problem list) from information contained within the progress note.

Following the formatting guidelines for easy downloading allows a clinic to establish the foundation of a complete electronic health record with only a slight modification of their daily activities. When the EHR project is ready to go live, the stored information can be downloaded and the practice will be up and running with a significant amount of clinical data already in place.

How long does it take from signing the contracts to going live with an EHR?

An EHR project is a cooperative effort between the software and hardware vendors and the practice. It requires the completion of the following tasks:

- *Mobilization of clinical and administrative staff*
- *Acquisition and installation of hardware and network*
- *Configuration of the EHR to meet the individual practice’s needs*
- *Completion of special interface projects*
- *On-site training*

The amount of time required will vary depending on the EHR application, the size of the practice and the quality of the project management by both the vendor and the practice. Practice Partner Patient Records sites are typically deployed within 12 weeks, depending on the size of the installation.

How does an EHR interact with my billing and scheduling products?

If your practice currently has an existing medical billing and appointment scheduling system that is satisfactory, the EHR will function side-by-side with these applications. Ideally, an interface will be established between the existing practice management software and EHR to transfer patient demographics. This process then creates electronic charts within the EHR that are ready for entry of clinical information. For new practices, or practices that are discontinuing use of their billing software, there is some advantage to integrated systems: software that includes billing, scheduling and the EHR from the same vendor. These systems typically offer greater transfer of information between applications and also help simplify support and training.

What organizational leadership is required for success?

For an EHR project to be successful, physician leadership is required. For a multi-physician group, the project typically requires a physician leader/advocate that can effectively communicate the goals of the project and be a liaison to the group on technical or user issues.

What additional staff is needed to support an EHR?

You do not need to make additions to your staff to support an EHR, but it is necessary to allocate the responsibility for basic system administration. An EHR system requires routine maintenance, backups and someone to troubleshoot problems as they occur. These tasks will ensure the smooth running of an EHR on a daily basis.

Summary

The excitement and benefits of converting to an electronic health record need not be overshadowed by unanswered questions surrounding the selection and implementation of this technology. If a deliberate path is outlined from the project's inception, with the clear goal of a paperless and thus more efficient office, success will surely be yours for the taking. In the end, you will have a more profitable office, a more efficient staff and a healthier patient population to attest to the fact that you made the right decision in implementing an EHR.

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