

EHR Systems - A Practical Approach to Selecting the Right System - by Daniel Hughes.

Introduction

The emergence of new data management technology is equipping healthcare providers with powerful tools for enhancing patient care and improving practice efficiency. Electronic Health Record (EHR) systems are an excellent example. While implementation of EHRs by small to mid-size practices is just beginning, the opportunity exists today for virtually any practice to enjoy an array of benefits from this technology. The challenge is to maximize those benefits and minimize disruption to the practice during the transition. The solution is to make an informed decision by using an effective selection & implementation process. The key components are:

- Understanding EHR functionality and options
- Defining an EHR utilization strategy
- Effectively evaluating vendors

This article will provide a framework for selecting an EHR system with an emphasis on Clinical Decision Support (CDS). Other parameters of the selection process will be covered in future installments.

Information Technology in the Healthcare Environment

According to a 2006 WSJ / Harrison poll, 77% of adults would like to be reminded via email from their doctors when they are due for a visit or some type of medical care. In addition, a majority of adults believe the use of electronic medical records would improve the quality of care for patients and reduce the frequency of medical error. Although many hospitals and larger physician groups have implemented EHR systems, small to mid-sized physician practices have been slower to adopt this technology.

Why are physicians slow to implement EHR systems? In a 2006 survey by the Medical Records Institute, a majority of physicians would like to implement an EHR system to improve their quality of patient care and workflow office efficiency. The survey cited the top two reasons for not adopting such technology as the financial and people resources required.

How can providers overcome barriers to realize the benefits of EHR? First, understand the individual components of EHR so you can procure the right features; second, define the requirements necessary to establish a successful implementation; and third, select a vendor that has the longevity to support your needs now and in the future. Through this approach you will implement only what is necessary at each phase, enabling you to expend the minimum amount of resources for the most relevant benefits.

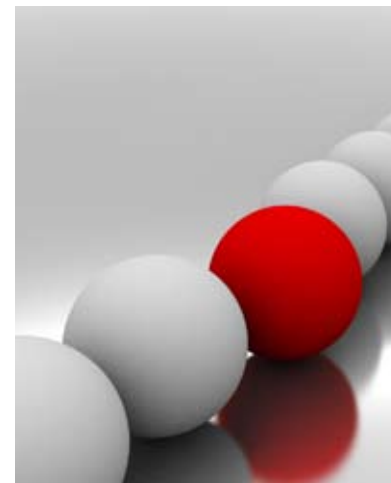
Understanding EHR Functionality and Options

Throughout healthcare literature, there are many names and descriptions used to describe EHR. A few examples include:

- Electronic Health Record (EHR)
- Computer-based Patient Record (CPR)
- Computerized Medical Record (CMR)
- Electronic Medical Record (EMR)
- Virtual Patient Record (VPR)

The term EHR is used in this article to refer to systems that electronically capture patient health information and assist with clinical decision support.

There are two distinct functions of an EHR system: Patient Encounter Data Capture & Exchange and Clinical Decision Support. It is important to understand how each one of these functions will be used in your practice. The rollout and integration between the two will determine how much capability is realized.



○ | EHR SELECTION

Make an informed decision by using an effective selection & implementation process.

○ | STEP 1

understand the individual components of EHR

○ | STEP 2

define the requirements necessary

○ | STEP 3

select a vendor that has the longevity to support your needs now and in the future.

Capturing Patient Encounter Data & Exchange

The data capture & exchange function of EHR deals with how and what information about the patient's medical history will be recorded. This includes user forms to enter patient data, such as demographics, insurance coverage, and the complete medical note. It also defines the valid values of the information entered. Claims accuracy can be improved by creating an interface between the EHR and billing system to record procedure and diagnosis codes. Creating data interfaces with third-party pharmacies and laboratories can increase the accuracy of management information and enable decision support.

Clinical Decision Support (CDS)

CDS is a broad term used to describe many tools that assist the provider with patient care decisions. The California Healthcare Foundation published an excellent description of CDS in 2002 titled, Clinical Decision Support for the Independent Physician Practice. It asserts that CDS has three broad categories: Clinical Knowledge, Individual Patient Management Tools, and Care Recommendations.

Clinical Knowledge - Clinical knowledge tools are passive reference desktops designed to facilitate research of expert opinions, relevant clinical trials and medication references. EHR vendors may or may not embed this type of tool within their application, so a stand-alone product can be the best option. Providers should determine what reference source they are most comfortable with for their specialty.

Individual Patient Management Tools - By providing physicians and medical staff with proactive tools that sort and organize clinical data based on pre-defined rules, patient information can be objectively scored. For example, activities such as patient assessments, which are currently being performed by the physician during an encounter, could be provided to the patient in advance to be completed prior to the appointment. Using this information, the patient's clinical history can be merged with the self-assessment to alert the physician to any changes in the patient's condition since the last visit. Another application would be to present the physician with a set of treatment orders or care standards for patients who have been diagnosed with a chronic illness, such as diabetes or coronary heart disease. As the sophistication of the data captured during the patient encounter increases, specific CDS tools can be configured to assist with individual patient care decisions.

Care Recommendations - This includes patient tracking tools that monitor patients with specific conditions, wellness and disease management tools, and reminder generation about interventions that are due. This category of CDS assists the provider with setting and identifying patterns across the practice. The California Healthcare Foundation study can be found at: <http://www.chcf.org/documents/ihealth/ClinicalDecisionSupport.pdf>

Defining an EHR Utilization Strategy

What are some of things to consider during the planning phase?

First, it is important to set a strategy for the overall project. Because you know your practice best, you should decide what is most important and realistic to implement. The implementation of an EHR application is a journey with many incremental steps, so it is essential that everyone has a clear understanding of the strategy and timing. Much of the promise of CDS capabilities, such as patient self-assessments, medication checking, and care alerts, are only possible after workflows are established and the basic patient encounter data are captured.

Second, you should separate data capture and CDS requirements to determine what the practice really needs. For example, patient self-assessment may not be a priority in the beginning and therefore should be a phase two activity. Or maybe interfacing with a laboratory or pharmacy can be done at a later time. But interfacing with the billing system and defining order sets is a priority that needs to occur in phase one.

Implementing EHR and realizing its full benefit is a continuum dependent on data capture and integration between systems. It would be too difficult to implement every feature and function of one or more vendors immediately. Thus, an incremental approach is a good way to move onto the new system while minimizing the disruption to the practice.

○ | CDS - Clinical Decision Support has 3 broad Categories

○ | CDS CATEGORY 1
Clinical Knowledge

○ | CDS CATEGORY 2
Individual Patient Management Tools

○ | CDS CATEGORY 3
Care Recommendations



Effectively Evaluating Vendors

Two key questions to ask yourself about vendors: Who are the vendors that focus on your specialty and which ones have the longevity to support your needs in the future? Polling colleagues is a good way to identify some of the strong players. They will have the best experience working with an application “in the trenches,” so their opinions should be valued. Another way is to review industry resources such as this Compendium and others to identify vendor candidates. There are over 250 EHR vendors in the market so consolidation will occur at some time in the future. Your final list should be reduced to three vendors.

You may find that certain features are not available within the EHR application that best meets your overall requirements and price point. For example, not all applications can handle functions like integrating guidelines that are applied to patient diagnosis and treatment data for measuring the quality of care across the practice. A third-party or custom solution may be needed to perform such an analysis. As with any application, each vendor has specific competencies. Look for vendors who have the longevity to support your needs three to five years down the road. You don't want to go through this again in a couple of years because a vendor is out of business or has discontinued its product support.

Finally, remember to stay realistic concerning what your practice can implement and use. You can always add functionality in the future once the core product is installed and workflow is established. The key in this phase is to know what you want and procure what will get the job done from a reliable vendor.

A good resource for selecting an EHR system is a white paper published by the California Healthcare Foundation titled Electronic Medical Records: A Buyer's Guide for Small Physician Practices. It provides a complete methodology on things to consider during the selection process. <http://www.chcf.org/documents/ihealth/ForresterEMRBuyersGuideRevise.pdf>. Hiring a consultant to help guide you through the process can also help you avoid common pitfalls and systematically evaluate products.

EHR – Information Technology in Practice

While many practice leaders are understandably cautious about the transformation to EHR systems, new technology and friendly-to-use systems are effectively addressing traditional concerns. Informed, committed providers can identify the right solution and plan its incremental implementation, minimizing practice disruption, while enhancing patient care and administrative efficiency.

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○ | VENDOR LONGEVITY

You want to make sure that your vendor will be around to support you in the future

○ | GROW INTO THE EHR

You can always add functionality in the future once the core product is installed and workflow is established

○ | METHODOLOGY

Plan for incremental implementation to minimize practice disruption

○ | CLARITEE GROUP

Enhance your Existing System through Integration Services and Reporting Tools