



A Beginner's Guide to Selecting an EHR

A step-by-step guide to help you select and purchase an EHR that is right for your practice

WelchAllyn[®]

Advancing Frontline Care[™]

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Selecting an electronic health record (EHR) is one of the most important decisions a practice can make. It is also one of the most difficult because of the complexity of the application, the sheer number of products on the marketplace (over 200 by last count) and the fact that most practices have never purchased and installed an EHR.

Despite these challenges, the process for selecting a system that works for you is relatively straightforward. This does not mean to say that it is easy—a successful selection process requires work—but it need not be mysterious or frightening.

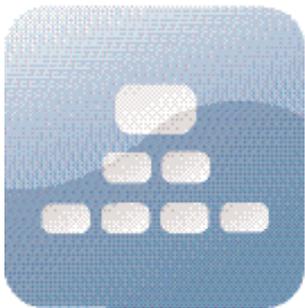
The purpose of this document is to give you a simple guide for selecting an EHR that's right for your practice. As you will see, much of the work in EHR selection involves planning well, even before you pick up the phone to call potential vendors. Once that initial planning is done, we will walk you through a series of steps that will help you select a short list of qualified vendors, manage demonstrations, and negotiate a contract.

Let's get started.



A common mistake for practices considering an EHR is to underestimate the dramatic effect it can have on the practice. Besides the obvious impact on physicians and clinical staff, an EHR touches the administrative and practice management functions as well as the practice's existing hardware and software. Additionally, an EHR project is not "plug-and-play". To succeed requires well coordinated planning and project management.

There are four (4) distinct areas where a practice needs to focus its planning:



Organization

What is our objective? Are we ready for an EHR?



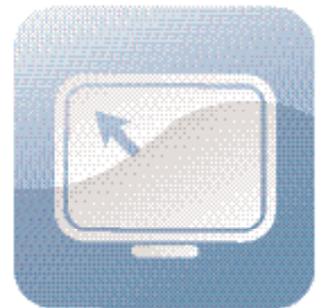
People

Who will lead and manage the project?



Capital

How will we pay for it? How do we calculate our return?



Technology

How will we deploy the technology?

Let's look at each area.



ORGANIZATION

Before getting started, it is crucial to assess the readiness of your practice. Here are some key questions to consider:

Are all the physicians committed to the project?

This is an essential consideration for any practice that has more than one physician. Committed doesn't mean that all physicians are uniformly enthusiastic about the prospect of an EHR—but it does mean that they support the change and are willing to invest their time to help make the project successful. In physician-owned practices, a divided organization—with some proponents and some detractors—will have difficulty succeeding.

Are organization stakeholders informed? Do you have volunteers or staff for selection & implementation committees?

While EHRs have the most dramatic impact on physicians, it affects all of the staff in the office in some way. Part of the planning process is keeping the non-physician part of organization informed. This helps insure minimal conflict between other practice initiatives that may be underway. It will also give you opportunity to start soliciting volunteers to assist with implementation.

What type of implementation are you going to do?

In EHR parlance, there are two types of implementation:

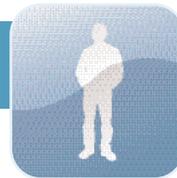
- Big Bang—all of core EHR components are deployed at once.
- Incremental or Modular—specific pieces, such as e-prescribing are rolled out one module at a time.

What is right for your practice? Big Bang involves more upfront work and is more disruptive in the short-term, but offers a more rapid return on investment (ROI). With the Incremental approach, there is less upfront preparation, it is less disruptive, but the implementation process takes is lengthier and therefore it takes longer to realize your ROI.

	Big Bang	Incremental
Pros	More rapid implementation More rapid ROI	Less Disruptive to practice Fewer upfront resources required
Cons	More disruptive to practice More resources required	Longer implementation process Longer time period to achieve ROI

Are there competing or seasonal initiatives that could impact EHR project timing?

EHR projects require the single minded attention of the practice leadership. It should be planned so as to not compete with other projects that need focused management attention. This consideration is relevant during the selection and implementation process—both of which require a significant time investment from the project leaders in your practice.



PEOPLE

Successful EHR projects need time and leadership. In particular, since EHRs can significantly change the way that physicians work, they require physician time and leadership.

Here are some key questions that you will need to answer in terms of staffing an EHR project.

Is there a physician leader for the project?

EHR projects require physician leaders. While many aspects of the EHR project can be assigned to staff, the leadership requirements cannot be delegated. The physician leader is responsible for:

- Defining the vision to the other physicians: Why are we doing this? What's in it for me?
- Defining EHR based workflow: How are we going to use the EHR in our practice? How are going to configure it to work for our needs?
- Overcoming objections & obstacles: Even a well-run EHR project will encounter issues that may cause physician concern. A physician leader is responsible for addressing issues and keeping the project moving forward.

Who will manage implementation?

Implementation is the process of coordinating software, hardware, and staff to bring the EHR to life. While the EHR vendor is essential in this process, you must identify an internal project manager to bring all the moving parts together—from arranging installation of network wiring to setting up a training facility for staff. A common strategy for practices is to establish a committee consisting of a mix of clinical and administrative staff—each with specific assignments and responsibilities.

Who will support the new hardware & network?

Because the EHR requires workstations for the entire clinical staff and network to connect these workstations, an EHR-based clinic has a much larger technology footprint—and one that is mission critical. Since the majority of EHR vendors do not supply or support hardware, it will be necessary to identify a mix of internal staff and/or third parties that will be able to install a new network along with new hardware and insure that it runs smoothly.

For Gateway Family Health, a 22 provider practice in Moose Lake, MN, the move to an EHR meant supporting over 100 new workstations as PCs were placed throughout the four locations managed by the practice. To assist in the installation and support of their new hardware and network infrastructure, they decided to hire a network analyst.



CAPITAL

While studies indicate that EHRs can generate handsome returns to physicians, they do entail a significant investment of time and money. Additionally, they can have a temporary negative impact on productivity, while the providers get familiar with the system. Let's look at some of financial aspects of an EHR project:

How much does an EHR cost?

To a certain extent this is the same as asking how much an automobile costs. It depends on the brand, the options, the size of your practice, whether you purchase the system outright or buy it as a service. For our purposes, we will define costs as the out-of-pocket expenditures necessary to purchase the software, hardware, services, and annual support. A reasonable range is \$20,000 to \$40,000 per provider, with a provider being defined as MD, DO, PA or NP.

What will be our ROI?

A successfully implemented EHR should generate a positive Return On Investment (ROI)—meaning you should be able to recover your cash outlay from either increased revenue or lower costs. Calculating your ROI means understanding where the gains or savings will be made in your practice. Some basic guidelines:

Revenue gains from an EHR come primarily through improved coding. EHR templates make it much easier to document in a more complete way. Most EHRs come with an E & M coding wizard, which examines a given note and provides suggestions on how to optimize coding. In some instances, practices may be able to generate modest increase in patient volumes—however these gains are unlikely in the beginning. Productivity actually declines initially, as providers work their way up the learning curve.

Cost savings are gained from elimination of third party costs such as transcription or through the reduction of FTEs required to support the practice, due to improved efficiencies.

- To eliminate transcription, providers must transition to direct entry, which means they are manually entering progress notes directly into the EHR.
- Labor savings are primarily generated by the eventual elimination of the labor required for retrieval and filing of paper-based records. The labor efficiency of practice can be measured by looking at FTEs/provider.

In a recent study published in *Health Affairs* (Volume 24, Number 5), that analyzed 14 practices, the authors stated, "The average practice paid for its EHR costs in 2.5 years...Financial benefits averaged approximately \$33,000 per FTE provider per year."

How will we pay for the EHR?

To pay for your EHR initiative, there are three alternatives: cash, bank financing, or leases.

- Cash has the lowest financial expense but the biggest impact on the liquidity you may need to run your practice.
- Bank financing through a loan or line of credit offers lower financial costs (i.e. lower interest rates), but reduces overall borrowing capacity that you might want to preserve for operational cash flow fluctuations (i.e. making payroll).
- Leasing is easy to get, preserves cash resources and other borrowing capacity and may have tax advantages. Effective interest rates for leases are typically higher than bank financing and there is no early payment option.

The financing described above pertains to licensing the software in a client-server configuration. Alternatively, with an ASP (application service provider), there is a monthly fee that can be financed from an operating budget; however, even with an ASP you will need to plan to finance additional hardware and network components as well implementation services.



TECHNOLOGY

EHR projects force a number of decisions regarding technology that should be carefully considered before beginning your shopping.

Should I keep my practice management system?

Keeping your existing practice management system is one less item to implement and allows the practice to stay focused on the EHR. However, it will entail—at a minimum—a registration interface, so that incoming patients can be registered within the practice management system and have the information automatically transferred to the EHR.

From a pure functionality perspective, integrated systems (a combined EHR/practice management on a single database) offer more value, allowing an easier exchange of information between clinical and practice management functions and eliminating the need for interfaces. However, a new practice management system will require additional implementation work and up front costs for licensing fees.

Do we want PCs in each exam room or wireless?

How will the clinical staff interact with the software and with patients? There are two basic models; fixed PCs or mobile PCs. In the fixed model, PCs are placed within the exam room, in doctor's offices, and at "stations" positioned outside the exam room. With mobile PCs, providers carry either a laptop or tablet PC from room to room, connected to the main server through a wireless network.

The pros and cons? The fixed PC model requires more computers—but since they are typically desktops, they are less expensive. The fixed PC model has the advantage of not requiring providers to carry anything.

Mobile PCs translate into an easier network setup, since it is not necessary to wire or reconfigure the exam rooms to accommodate computers. Note: some practices will utilize mobile PCs for the physicians and fixed computers in the exam rooms for nurses.

Tablets, laptops or desktops?

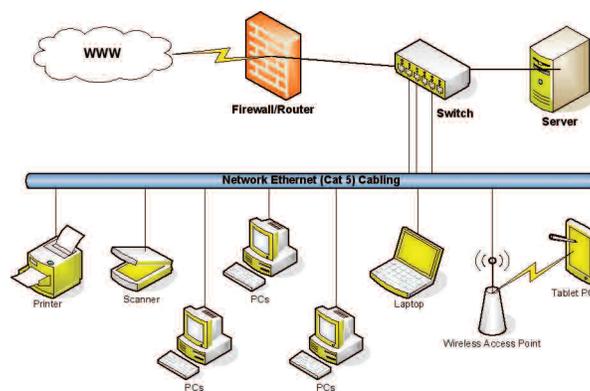
Depending on your answer to the question above, you will need to make decisions about the particular type of PCs that you would use at your site. To define terms: a desktop PC is a larger, non-mobile device consisting of a separate CPU and monitor, keyboard and mouse. Laptops bring together CPU and keyboard into one portable device, and the tablet or "slate" PCs are the equivalent of digital clipboard, allowing easy pen-based entry or writing directly on the computer screen (they also come in models—called convertibles--that have an attached keyboard). The pros and cons of each are listed below.

	Desktops	Laptops	Tablets
Pros	Least Expensive Easy Service	Mobility Versatility	Mobility Ideal for pen-based entry
Cons	Non-mobile	Not ideal for pen-based entry	More expensive



A hosted (ASP) or client server installation?

How comfortable are you in the care, feeding and support of a computer system that contains all of your patient information? If you are nervous about this, you may want to consider purchasing your EHR through an application service provider (ASP). In the ASP model, the practice still maintains a network of PCs throughout the office, but these connect through the internet to a “hosted” server (the computer that contains the EHR application and the patient data). The professional IT staff of the ASP maintains the server, performs software updates and data backups. You pay a monthly service fee that ranges from \$350 to \$700/month per provider for as long as you are using the service. In a client server setup, the application and database server reside in your office—which means that you have complete responsibility, including the purchasing the hardware, network software, backup tools, plus the daily support of all of the components.



This schematic highlights a client-server installation. In an ASP, the server would be located remotely.

What interfaces will I need?

In order for EHRs to be truly useful, they need to be able to electronically receive information from third parties. This is achieved through interfaces. Example: an EHR interface to a clinical reference lab allows lab values to be electronically placed directly in the patient chart—eliminating the need for manual entry.

Defining your interface requirements prior to EHR shopping is essential from a cost perspective (there is typically a separate charge for each interface), and from a capability perspective. Can the vendor do the work?

Is the system capable of connecting to the devices that I use?

Commonly used devices such as electrocardiographs (ECG) and spirometers create a combination of waveform, interpretative, and digital data that should be accessible through a patient’s EHR. Device connectivity allows your EHR to communicate with devices such as ECG so that historical information is easily incorporated into the patient record. This eliminates the labor intensive process of scanning a paper copy of the ECG or spirometry report into the EHR. Device connectivity can also assist in work flow. For instance, when electronic vital signs monitors are connected to EHRs, they insure an accurate recording of values and significant savings in nursing time.

Welch Allyn is a leader in connectivity between EHRs and its family of cardiopulmonary and vital signs monitors. To insure the highest level of performance for its customers, Welch Allyn established the Welch Allyn Certification for Device Connectivity. The objectives of Welch Allyn Certification are: 1) To provide customers with a list of EHR vendors that have met the Welch Allyn Certification criteria, allowing them to purchase an EHR system that has demonstrated an acceptable level of connectivity with specified Welch Allyn devices; and 2) To provide improved coordination between Welch Allyn and the EHR vendor relative to implementation and technical support issues.

After your planning process is completed, the next step is to narrow the list to three to five qualified vendors. This allows you to focus your efforts on a smaller group of companies that you can give careful consideration.

Here are some techniques for narrowing your list.

Select systems that offer integrated practice management with EHR

There are two types of EHRs available; those that are offered as a stand-alone product with the ability to interface to various third party practice management systems and vendors that offer EHRs fully integrated with their practice management solution (ideally using the same database).

Integrated systems offer a number of advantages of over stand-alone EHRs including:

- Reduce interfaces required
- Simplify technical support
- Enhanced features

The downside of integrated systems: the additional expense, implementation, and disruption that is required when you replace your practice management system.

If you are not satisfied with your existing practice management system, you will better served by choosing an integrated system. Even if you are happy with your practice management, there is still merit to selecting an EHR vendor that offers practice management integration, so that you have the option of using an integrated system down the road.

Select CCHIT certified vendors

The Certification Commission for Healthcare Information Technology (CCHIT) was established to help create a certain minimum standard of functionality for EHRs and a testing process for EHR vendors to determine if their products met the standard. Vendors who pass the CCHIT testing criteria are certified and are noted on the CCHIT web site (cchit.org).

CCHIT is a good thing. It provides an independent verification of vendor claims, so you do not have to. CCHIT certification also helps insure the vendor you select is in line with emerging national standards. Also, it is likely that third parties offering EHR-based incentives may require that the EHR that you are using is CCHIT certified in order to receive the incentive.

Select Welch Allyn certified EHR Vendors

Welch Allyn Certification is intended to assist customers select EHR systems, by providing a verification that the EHR vendors have demonstrated an acceptable level of functionality and service in terms of connectivity with Welch Allyn devices.

If you either have or are considering the use of Welch Allyn devices such as vital signs monitors or ECGs in conjunction with you EHR, selecting Welch Allyn certified vendors is an important consideration in narrowing your list.

Select vendors that are successful with practices like yours

Each vendor develops knowledge and expertise based on the type of customers that buy their products. A small primary care practice has considerably different training, implementation and functional requirements than a multi-location, multi-specialty practice. Progress note templates for family practitioner will not meet the needs of an orthopedic surgeon. Some vendors have a broad exposure and experience with a variety of different specialties and practices sizes; others tend to focus. In either case, you should purchase from vendor who understands your specialty and can implement the product in way that makes sense for the size of your practice.

Understand what is happening in the EHR market in your region

Like politics, healthcare is local. To help encourage adoption of EHRs, many regional organizations are offering programs for physicians. Here are some examples:

- Some Independent Physician Associations (IPAs) have established business relationships with vendors to sell EHRs, usually at favorable pricing to its members. In some instances, the IPA will host the EHR locally and offer it to physicians on a monthly subscription basis as an ASP (application service provider).
- With the relaxation of the Stark self-referral restrictions, hospitals can provide direct EHR subsidies to their affiliated physicians. Usually this is in the context of a hosted model, with the hospital functioning as an ASP. The advantage to the physician includes favorable EHR pricing, local support, and lower cost interfacing to the hospital systems.
- State medical societies and specialty associations may have negotiated preferential pricing for their members with selected vendors.

Finally, check with local colleagues that have made the digital move; they will give you the best perspective of what it is like to be a customer for a particular vendor. They can also tune you in to local IT resources that will be useful for your project.

After you have narrowed your list to no more than three to five vendors, you can begin actively shopping for your EHR partner. The goal: select a vendor, sign a contract, and establish a timeline for starting implementation.

If you have done your preparation and homework well, this process is straightforward and involves the following five (5) steps:

1. Formal request for proposal (typically for larger practices only)
2. Scheduling and viewing product demonstrations
3. Receiving and reviewing quotes
4. Site visits, references checking and other due diligence
5. Contract negotiation

The complexity of the process—and the length of time to complete it—is directly correlated to the size of the practice. A solo practitioner that has done good preparation can complete active shopping in 30 to 60 days. A 25-physician group with multiple locations, multiple specialties, and central billing office not only has more masters, but a more complex infrastructure requirement—and will take considerably longer to complete.

With this mind let's examine some of the key activities that occur during active shopping.

Requests for Proposals (RFPs)

A Request for Proposal is a detailed questionnaire issued by an organization prior to the scheduling of product demonstrations. It defines the requirements of the project and is commonly used to help to create a short list of preferred vendors that will be invited to demonstrate their product. RFPs make most sense for larger groups or practices that are part of a larger institutional entity.

Product Demonstrations

The “demo” is the practice's chance see the product in action. To get a better sense how different vendors handle the same issue, a script is useful. The script defines specific functions that you would like to see demonstrated. Ideally, the script should mirror the practice's daily activities, according to the job function.

As an example, for a demonstration that involved both administrative and clinical staff, you could ask each vendor to demonstrate the process of patient scheduling, patient registration, nursing intake and notes, physician documentation and writing of prescriptions, and basic billing functions. By including a scoring column on the scripts, you can quantify responses.

EHRs and practice management products are complex and demonstrations take time. Allocate at least two to three hours per vendor. A demo is a group event and all of the key players in the practice that will play a part in the success of the project need to be present—particularly physicians.

Quotes & pricing

To objectively compare prices among your finalists, you must receive a formal proposal from the vendor. This proposal—the quote as it is called in industry parlance—provides pricing and a brief description of software, implementation services (the labor required to install the system), and annual support (fees for help desk support and new versions of the software).

Although most EHR vendors are selling the same primary components, it may not be obvious from their proposals. Preparing an apples-to-apples comparison spreadsheet—including the 5-year annual support costs—is a useful way to effectively compare the true cost of different systems.

Reference checking and site visits

References are essential in getting a better understanding of the “real world” experience of implementing and using a system from a particular vendor. Ideally, the vendor can provide a site that is the same specialty, roughly the same size and within driving distance.

References provide you with insight into the functionality of the product in a real practice, a flavor of the implementation and training experience, and the responsiveness of technical support. A more involved form of reference checking is the *site visit*, where you visit the practice in person. A site visit is not only useful in getting a better understanding of the vendor, but also of the overall process of transitioning to an electronic health record.

EHR Consultants

Consultants can assist both in the internal preparation and selection process. For a practice that has never purchased an EHR, hiring a consultant is like hiring an experienced guide for a journey in foreign land. Consultants can help assist in the education, internal evaluation and needs assessment, procurement, and contract negotiation process. Consultants provide a coherent structure to the EHR selection process while serving as an expert resource on the varied products and major vendor players. In addition to saving staff time and facilitating a better process, consultants often are able to negotiate a better price than the practice could negotiate on their own.

Contracts & contract negotiation

To complete a transaction with an EHR vendor, you will be required to sign a contract or purchase agreement. While the structure, language, and terms of a contract are highly variable, there will be some common elements within each contract including the following:

- A software license agreement: software is most commonly sold as a perpetual license, meaning that you have right to use the software indefinitely. A software license will contain restrictions regarding use of the software to primarily to insure that you do not inappropriately use or copy the software beyond what you have paid for.
- A support agreement: this usually covers both the help desk function (the ability to call the vendor’s technical support to assist with problems) and updates (new versions of the software with new features and bug fixes). The support agreement will define what is covered under support (sometimes vendors charge separately for updates) the hours of operation, response time (how long it should take respond to a problem that you have called in) and escalation policies (what happens if your problem does not get resolved in a timely fashion).
- General business terms: A contract should cover a variety of other topics such as warranty, return policy, payment terms, performance clauses and dispute resolution.

Since EHRs often bundle multiple products and services into their offerings, the contract may require signing more than one document. For instance, there will be a separate contract to sign if your EHR vendor has partnered with a claims clearinghouse to do your electronic billing.

Where do practices make mistakes?

As you can see, selecting an Electronic Health Record for your practice is major undertaking. And selection is just the beginning: implementation and effectively supporting an EHR system will require focused effort from the entire staff.

Some of the common mistakes that practices make in the selection process:

- **No plan and no process:** To make a good choice and to have a successful project requires carefully thinking through a myriad of detailed issues as we have described above. There will always be surprises, but careful planning can help mitigate them.
- **Lack of organizational consensus:** Everyone needs to be on board for an EHR project, particularly the physicians. There is no need to start a selection process until the practice is fully committed to moving forward.
- **Lack of physician leadership:** EHR directly impacts physicians more than any other group in the practice. Selection and implementation need physician leaders to move the project forward and help insure that the system meets the needs of the clinical staff.
- **Insufficient allocation of time:** All phases of an EHR selection process takes time. Since most practices are already busy, you will have to specifically allocate time to support the project (i.e. through the formation of a committee that holds regular planning meetings). If your current staff does not have time to deal with the myriad of details required, hire a consultant.

If you follow some of suggestions that we have offered here, it is easy to avoid these mistakes. The electronic health record is a well established and proven technology that has brought tremendous benefit to the clinical, financial and operational health of medical practices across the country. There is no reason why your practice—with a little planning and investment of time--can't experience the same benefits.

About Welch Allyn

Welch Allyn is one of the leading suppliers of technology and medical devices to physician offices. Based on years of experience in working with electronic health record vendors, Welch Allyn has become expert in many of the key aspects EHR technology and selection. You can take advantage of this expertise through our EHR Selection Kit, which provides a detailed do-it-yourself workbook providing all the key planning checklists, spreadsheets, demonstration scripts and other materials necessary to make the EHR selection process easier and more effective. Additionally, Welch Allyn is offering hands-on consulting services to assist you in the preparation and selection of an EHR. See your Welch Allyn representative for more details.