

# **EVERYTHING YOU WANTED TO KNOW ABOUT AN ELECTRONIC MEDICAL RECORD BUT WERE AFRAID TO ASK**

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Since the beginning of writing, there has been writing about medical conditions of patients. For the same length of time there have been problems with these writings. Try to read a medical papyrus from Egypt, or a modern medical record and you have the same problems, trying to decipher the handwriting, regardless of the language or quality of the ink.

Enter the Electronic Medical Record (EMR) which significantly changes the equation. In the grand scheme of things, this change has occurred virtually over night. Electronic Medical Records are clearly here to stay. Certainly they will evolve to provide more and more features (just like automobiles each year).

The question remains, when should physicians get involved in acquiring this evolving technology. This is not an easy question to answer and answers will vary depending on whom you are talking to about the EMR.

For example, if you ask that question of an EMR salesman, the answer will generally be "as soon as possible". Or, it might be, "you are almost too late already".

If you ask a computer programmer, the answer might be "as soon as I get the new features written into the new program I am working on". But, there will always be new features. The technology will always evolve and if you wait, you may never get on board. The problem is, eventually, you will have to get on board because the government and the medical industry will not be able or willing to support paper documents and you will join the ranks of dinosaurs unless you get involved.

If you ask a physician in the older age category (perhaps over 40) you might be told to never get one, as they are only a passing fad and will never catch on (much like cell phones a few years ago.)

And if you ask a younger physician (less than 40), he won't even understand the question, because computers are second nature to him and he doesn't think twice about it. So, what is this Electronic Medical Record thing?

## **WHAT IS AN EMR:**

It is a medical record that is:

### Paperless:

Think of how many e-mails vs. old fashioned letters (snail mail) you get. I'll bet the only paper mail you get is magazines and advertisements. OK, perhaps an invitation to the White House, but remember how it used to be just a few years ago. Why should the medical profession suffer in the "old way", having to deal with a paper record that has to be filed and refilled, stuffed with all sorts and sizes of papers that, even if held together with metal clamps and the like, will still have a tendency to fall out all over the place, as you are trying to understand what is going on with your patient.

### Organized:

The more papers you have to file, the more likely they will get into the wrong place. Of course, that assumes your paper medical records have places for all similar documents, with tabs, for example, separating them. Consider your exasperation when you have to go through the whole chart to find the document you need because someone put it where it shouldn't go. With an EMR, problem solved. The information always goes where it is supposed to go and you can decide where that should be.

### Confidential:

Leave a paper medical record lying around and anyone can pick it up and learn all about the patient. Even leaving it in the patient files makes it fair game for public viewing. HIPPA requirements call for keeping all medical records behind two locks, i.e. A locked cabinet and a locked room as well, or some such variation. The Electronic Medical Record contains security measures that require password entry, and in most cases can identify who the person was who examined even parts of the record. Patients worry about the confidential nature of their medical conditions and will appreciate the security an EMR provides.

### Have Manipulability:

We are all creatures of habit. This is also true for our medical records. I doubt there are two physicians that like their records the same way, in the same order. Most EMR's will provide the flexibility to allow a variety of arrangements of how the records look. Of course, all the data is in one repository, like a bank, but how it is displayed can be individualized to the physician's preferences.

### Legibility:

A major value to the EMR is its legibility. Of course, you can easily understand your handwriting. Others may have a bit of trouble reading your scribble, especially when you

are in a hurry and don't take the time to write clearly. Physicians have been stereotyped as having poor penmanship for centuries. Pharmacists are particularly concerned, lest they provide the wrong medication to patients because of the physician's handwriting. With an EMR, this is no longer an issue. All data will be legible and clear, regardless of which provider entered the data and who is trying to read the information.

Always available:

"Where is that %^%^& chart?" "I just had it in my hand." Or, "why can't I find it?" Or from the nurse, "we can't find the chart, doctor?" Or, "I'm sorry Mrs. Jones, I am not in the office right now and I don't have your record available." It goes on and on. With an EMR, the record will always be available, with the latest information. With web based features, you can have access anywhere there is a computer and the internet available.

**WHAT IS AN EMR NOT:**

Foolproof:

Unfortunately, an EMR is not foolproof. Like any machine, it needs maintenance and at times will break, or "go down". It is important to understand that this will happen, hopefully infrequently, and that there needs to be a process in place to deal with such an occurrence. "Down time" procedures should be part of the product you purchase for your EMR.

Free:

No, it is not free. But then, what is. When you consider all aspects of an EMR, vs. the paper alternative, you will see that there is significant cost saving features. When employee salaries, cost of paper, files, staples etc. are considered, they will help offset some of the cost of the EMR. But the big item is improved patient billing and collections. Coders generally find the EMR a huge benefit in simplifying their work and ensuring the best return from third party payers.

Understood by all physicians (especially over 40):

Now a day's children, even in elementary school are exposed to computers and become computer literate at a very early age. In fact, most parents find asking their children for help when "stuck" trying to do something on the computer will generally solve their problem. On the other hand, older individuals, those who remember carbon paper and mimeograph machines, are not so adept. Many prefer to avoid the stigma of computer ignorance by not owning such a device. The same is true for physicians. Actually, EMR's are becoming increasingly intuitive and will lead the physician through the electronic encounter, once they have learned a few basic steps.

### Widely used:

Purchasing an EMR today will still place you in the minority of physicians who have installed EMR's in their practices. But, users of paper records will be noticeably reduced in the future as more and more hospitals, clinics and physician offices understand the value of such products. In addition, the government and third party payers will insist that claim forms and other information they require be provided electronically.

### Totally paperless:

I had to come back to this. Let's be honest. Although the goal of a totally paperless medical record has a great deal of appeal, it may be a difficult goal to achieve. First of all, you will have continued correspondence with other physicians regarding your patients, and those physicians might not have an EMR available. While your communications with them might be electronically initiated by you, they probably will not be able to respond in a similar manner. Some laboratories still report results on paper and some third party payers do the same. In time, however, more and more of your patient care will be documented electronically.

### **WHY USE AN EMR:**

Why use a car, a phone, a television, a plane and on and on? I am certain lots of people had fear and trepidation about any of these devices, when they were first invented and marketed. We don't see why the EMR should be any different. With support and knowledge, fears and trepidations were overcome and so it will be with the EMR.

There are some very good reasons why adoption of the EMR is appropriate, even essential. They include:

#### Patient safety

Not having appropriate information about a patient you are about to treat is dangerous. Having false information is even worse. The EMR contains all the data about a patient and associated illnesses, medications, previous care and the myriad of other facts you need to treat the patient safely and successfully. There is no reason to handicap your decision making because you lack the necessary facts.

#### Patient confidence

Patients are generally smarter than we give them credit for. Even if they don't understand the inner workings of a computer (who does?) they do know scientists, physicians, engineers, and even astronauts rely on them for support. They do know they represent the most modern "state of the art" technology. Knowing their physician is also using such technology will give them confidence that they are getting the latest diagnostic and

treatment modalities available. Use of the EMR will impress your patients, and they are sure to share that with their family and friends.

### Patient participation

If you believe that patients should participate in their health care, there is no better way to get them involved than by using the EMR as a participatory tool. It really takes very little extra time to let the patients actually see what information you are placing in the EMR. Rather than just turning from the patient to enter information, let the patient join you in viewing the screen. Some EMR's have programs that will allow the patient to enter certain information, such as past medical history, social history and so forth. Some EMR's allow the patient to view portions of the medical records themselves, such as laboratory results, x-ray results, medication and problem lists as well. Some feature a communication system (i.e. secure e-mail) so that you and the patient can communicate thereby avoiding phone calls or unnecessary office visits. Of course, all such programs allow physician decision making as to implement them, or not. The flexibility is yours.

### Patient education

Utilizing the patient education portions of the EMR will greatly add to your patient's satisfaction with your care and expedite their participation in their care. There are a large number of educational materials available, which can be customizable, if you so desire. They can be printed out when you are seeing the patient and talking about their medical problems. We all know that patients often don't remember what is discussed during the physician-patient encounter and leaving your office with this type of material will be viewed as a patient friendly gesture on the part of you and your staff. It could also save patients calling after their visit when they feel they forgot some of what you told them.

### Improved billing and collections

Billing and collection practices are based on what is often considered a dirty word by physicians. We are talking about "documentation." Appropriate documentation is essential to both maximize third party payments, and also to insure safe harbor from the Federal and state medical authorities, such as Medicare, state licensing boards, hospital credentialing committees etc. However meticulous you are regarding your medical record documentation practices, important information is often incompletely documented or not documented at all. We are all victims of too much work and not enough time. Electronic Medical Records, appropriately configured, will ensure the physician is at least notified that important information may be lacking in the record. The EMR can identify those elements of the documentation that are essential to meet governmental requirements and maximize payment from third party payers. This can be of critical importance to patient care, maximizing income and keeping out of trouble with the inspecting authorities.

## Employee morale—no chart chasing, lost records

Paper records often are misplaced, misfiled, and subject to a large number of reasons for not being available. They can even be stolen. Knowing that the EMR is always available, from virtually anywhere you are and being able to retrieve the full record will greatly relieve the pressure on your employees to provide you and your patients with the best possible care.

## Increased efficiency

There are a huge number of examples of increased efficiency when using an EMR. For example:

- Fax and electronic prescriptions:

Gone will be the days of searching for a prescription pad (which should be locked up anyway), scribbled illegibly, and handed it to the patient so he or she can promptly lose it and require another. Once you select the medication you desire (by clicking a few buttons) you can send the prescription, to the pharmacy of the patient's choice, either electronically or by fax.

- Referral letters:

As you enter documentation into the patients EMR you are also (behind the scenes) constructing a letter to the referring physician, or whoever you please, regarding the patients condition. This letter can be sent either electronically, by fax or "snail mail"

- Physician education:

Immediately available to you, while you are working on the computer are a wide variety of electronic based educational materials. Don't quite remember the dosage of a medication you don't often prescribe? It's there. Want to find the latest treatment for an unusual disease? It's there.

- Patient education:

Want to provide the patient with some educational material about their medical problems. A few clicks will allow you to print a large variety of patient educational material to give them before the leave your office.

- Interoffice communications:

Want to send a message to one of your staff regarding a patient? Easily done without leaving the patient chart you are working on.

- Patient care:

Want to follow a patients laboratory studies over time in a clear and efficient manner? Graphing results of one or multiple tests is an easy process and gives you a total view of the patient's progress over time.

### **WHERE CAN THE EMR BE USED:**

#### Exam rooms:

Some physicians will prefer to enter data into the EMR as they interview and examine the patient. There is significant merit to such a practice. The patient will see the process, and know that the information he is giving the physician is getting into the record for future reference and care. This is generally a comfortable experience for the patient, especially if the physician involves the patient in the process and explains the value.

#### Nursing stations:

Some physicians will prefer to enter the data concerning the patients visit at a time different than during the encounter and would desire terminals at the nursing station or some other place dedicated to this purpose.

And, of course, some would prefer to have the terminals available in both places so they can do it in either environment. Fortunately, the cost of hardware has been decreasing through the years, and although not exactly free, it is generally not a limiting factor in most EMR budgets.

#### Conference rooms:

Having the EMR available during patient care conferences can be an invaluable tool towards improved patient care. When discussing a case with a colleague, having the data immediately available, in an electronic format, will greatly facilitate such an interaction.

#### Your home:

If it is important for the physician to have the EMR available at home so as to add data, study findings and/or communicate with patients having the patients clinical information available, then web based programs are available to fulfill this need.

#### Traveling:

The same is true while the physician is traveling. Of course, it is not always necessary to have this kind of 24/365 availability of the EMR, but it is available if desired.

Patient's home:

Finally, under certain circumstances it may be valuable to have the EMR available in the patient's home, or with a provider doing home or nursing home visits.

**WHEN CAN YOU START USING THE EMR:**

NOW:

Enjoy the benefits immediately. There are a large number of vendors selling an even larger number of software packages designed for physician groups ranging from one to full academic medical centers. Virtually all specialties are represented. Some packages are specialty specific; some cover all the medical specialties. Some are solely medical records; others contain the "full" electronic patient interaction, from appointment making and patient registration to billing and collections.

Choose software wisely. The mere fact that there are many vendors selling many programs is sufficient evidence that there is no "best" one. Rather, the programs should be identified that provide the best electronic solution to the individual practice situation. "One size fits all", generally fits none. And, that even applies to practices in the same specialty. The average physician group, usually, does not have the internal Information Service expertise or time to review all the possible programs in order to select the one best suited to their practice. Do not take the first vendor that comes along, or one recommended by a professional colleague. Each practice is different and needs to identify the best program for that practice.

In addition to variations in the myriad of programs available, there are other potential issues.

The vendor you choose today may be out of business tomorrow. The industry is undergoing constant change, with companies buying each other out frequently.

There are no national or international standards for software programming. This is a major issue for the long term. The likelihood of a national requirement that all electronic medical records can communicate with each other will require the development of these standards as quickly as possible. At the present time, while there is no such standard, many of the major vendors are ensuring such a communication will be possible by using self imposed standards. Some of the smaller vendors do not have the desire or capability to rewrite their programming into an integrated format.

LATER:

There will be fewer choices. The EMR business is a very competitive one with a great many companies developing various records of varying complexity and quality. While there is a spectrum of companies selling EMR's, the competitors fall into two main categories. First, large corporations, with thousands of employees and then, smaller

companies that are at continual risk for being bought out by the larger ones. Over time, we believe there will be a group of large companies, perhaps 8 to 10, instead of dozens and dozens of companies that exist now. The bottom line is, it is important to choose a company that will be here for the long run and has the resources to build EMR's now that will stand the test of time.

Standards will be developed. At the current time, there are no national or international standards that require adherence by developers of EMR's. You can liken the issue to the development of the railroad systems in the early years of rail transportation.

Manufacturers of railroad equipment could build their equipment to travel on rails that could be any distance apart. Therefore, railroad cars could only travel on rails of the manufacturing whims of the builders. Once a standard width of railroad roads was determined, it made rail transportation much more available and inexpensive.

More sophisticated programming will be continuously developed. Each installation of an EMR demonstrates new uses for the software and upgrades will be needed to keep the software current with medical practice. Not all companies provide periodic upgrades of their software. Obviously, some companies would rather sell you an entirely new software program. Ensuring availability of appropriate upgrades is essential when "shopping" for an EMR.

#### NEVER:

Don't get your hopes up. This will not happen. We firmly believe that Electronic Medical Records are here and will stay the course. We admit we are in the beginning of the transformation of how medical information is processed, but the end is inevitable.

Patient demands

Governmental demands

Third party payer demands

These demands will have to be satisfied. As the old expression goes, "you can run, but you can't hide."