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## Choosing the Right EMR for Your ED

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### Position Available: Data Entry Clerk, M.D.

9 - 12 hours per day in highly stressful environment. Copious background noise with frequent interruptions. Must be able to navigate complex software quickly and meet highly variable documentation guidelines on the fly. Ability to import and interpret laboratory and radiology data, as well as information from old medical records from diverse, non-integrated software systems a must. Computerized order entry also required. And oh, yes, must be able to save lives.

Does this sound like your job description? Then you must already be using an Electronic Medical Record (EMR) system in your Emergency Department (ED). If you are not, you can be sure you will be soon. Implementation of EMR's is clearly a national priority. From sharing of medical information to patient safety via physician ordering and electronic prescribing, you cannot read or hear about healthcare reform without mention of the increasing use of information technology as a means to improving healthcare. It is highly likely that your institution is or will soon be considering purchasing or creating an EMR for the hospital as a whole and for your ED in particular.

If designing an EMR for the ED was an Olympic diving event, the degree of difficulty would be like an arm stand reverse double somersault with a 4 ½ twist. The environment is probably the least conducive to interacting with a computer screen than you could make up. EMS radio calls and arrivals, multiple patients in various stages of workup and treatment, constant questions from staff and patient's families, phone calls from attending docs, radiologists, and consultants, all make it hard to focus on the radio buttons or menus that need to be clicked. Add to that the huge diversity in the types of patients presenting and the myriad approaches to diagnosis and treatment of that wide range of chief complaints, and the design of a logical, simple and rapid computer interface becomes daunting. One has to look very carefully at how any EMR product will actually function in the ED, rather than on the trade show exhibit floor.

### The Role of an EMR

One of the major challenges of an EMR is producing the type of narrative that effectively communicates, with other medical professionals, what happened during a medical encounter. This is really the primary purpose of the medical record - to tell the medical story. Making sure the EMR delivers on this aim should be the highest priority in designing or choosing a system. Interestingly, at a seminar I attended on transitioning to an EMR, there was a slide listing the

forces driving the implementation of an EMR. The word “Communication” was last on the list after reimbursement, coding, pay for performance, risk management, and data management.

Obviously, all these concerns are important but in my view this list is reversed. The EMR is, or should be, a tool to help you take better care of your patients and assist you to effectively and efficiently record the encounter. Yes, it should help you accurately document in a way that meets appropriate guidelines for effective coding, but most importantly it must create a document in the end that is useful to another practitioner.

I was talking to a Cardiologist seeing one of my patients in the ED about the EMR records we send him, and he said, “I never even look at them.” He found that he had to sift through so much extraneous text to find important facts that it was easier to start over and find out himself.

Don’t let this happen in your department. Being proactive and taking a leadership role in the search for an EMR is key for successful implementation. It will come, and you’d better help them choose or you may find yourself with a system that is not ideal and which affects your practice profoundly. The important thing to understand is how complex the products are and how many aspects of the practice will be affected by an EMR. There is no perfect solution. Every product will have its strengths and weaknesses, and you need to be able to live with those weaknesses on a daily basis.

Done well, this can be an opportunity to advance your practice, improve the flow in your department and widen the range and detail of information available to you as you care for a patient. EMR’s that integrate well with tracking boards, old medical records, laboratory results, EKG databases, etc. can help take you to the next level. Get involved at the ground level in your institution and make sure your EMR is one that can help you elevate your practice.

## **The Encounter**

The flow of the information in the emergency department is complex and constantly changing during a medical encounter. Solid and easily accessible systems for acquiring old medical record information, previous EKG’s, current and past laboratory and radiology data, medication histories and all the other sources of information emergency physicians utilize can assist them in refining the approach to a patient’s management significantly.

More often than not, the commercially available EMR systems are also ED tracking systems. As the electronic version of the old grease board, they are meant to be real time organizational tools for tracking ED patients as they go through the diagnostic and therapeutic process and many integrate physician order entry. Ideally, they provide a way to monitor time in the department, completion of therapies, return of test results and to alert the provider that all orders are completed and the patient is ready for reassessment. Typically, one accesses the EMR through the tracking system.

This is one area where the basic visual design is critical. The display of information must be easy to navigate visually and make it easy to assess how the department as a whole is doing or where any particular patient is in the process. The tracking board should display well in a large format for quick reference at a distance in addition to providing intuitive links to the EMR and other data available through the system on multiple workstations.

If possible, a simple means of logging in and out of the system should be utilized, such as proximity badges or card swiping. Having to bring up the tracking board, log in, reopen the patient's chart and navigate several screens to remind yourself of the patient's allergies or medication list will be frustrating and slow you down. Ideally, the system should integrate seamlessly with the various hospital information technologies to automatically import data such as laboratory and radiology results for real time review as well as documentation in the EMR for the encounter. This enhances efficiency by helping to cut out delays in reporting results as well as saves time documenting review of data for reimbursement purposes. The integration does not require that the same vendor handle all the hospital information systems, but rather that the EMR vendor is able to interface with a variety of commonly used systems. Here it is important to ask specific questions – everything you can think of that you would like the EMR/tracking system to do for you. You will be surprised by the different levels of “seamless integration” you find among products.

### **Finding the Needle in the Haystack**

The actual EMR is where you will spend most of your time interacting with the system. It should be visually simple, easy to use, fast, with a minimum of clicks needed for any one task, customizable for individual physicians, and sophisticated with regards to necessary documentation. Spend some time actually trying to use the software. There is no substitute for actually documenting a patient's chart with the system to see how it works in the real world rather than in a quiet room with the representative of the company flying through screens to show how easy it is.

Look for easy ways to document pertinent negatives, responses to therapy, medical decision-making process notations, procedures, and differential diagnoses, as these are common weak areas. The customizability is important to be sure the software allows or even encourages adherence to documentation guidelines such as elements of EKG interpretation. This is also important to allow physicians to apply his or her own style to the finished record to avoid the narrative that sounds like a robot. There should be an easy way to integrate free text input into the EMR, such as type ahead/auto complete features and voice recognition. The latter can be problematic in the noisy ED environment but newer USB microphones can do a reasonably good job of canceling noise.

By the same token, do not be put off by seemingly rigid methods of documenting certain parts of the record. A very flexible EMR is nice in some ways, as each person can find their own route through the screens that they prefer, but it also leads to repetitiveness in the narrative. Avoid

the Sir Edmund Hillary syndrome – clicking on a choice in the EMR “because it was there” which, though easy, can cause the record to bloat and even tempt you to document things you may not have explicitly asked the patient.

Don't forget your nurses and other staff – they will need to use it, too, and bogging them down in an inefficient system will take them away from the patient, where they really need to spend most of their time to be your eyes and ears. Make sure the EMR you are considering is easy and intuitive for them to document vitals, therapies, clinical updates, and medication lists.

Next, consider the output from the EMR. Is it readable? Does it look like a real medical record, with logical organization and well-defined sections? Make sure it does not get bloated with timestamps, initials and other data that kills readability. These should be accessible in a separate format when quality review or medical legal concerns dictate but are not necessary in the day-to-day use of the chart. Timestamps are fine for therapeutic interventions but should not clutter the HPI, for instance.

Finally, how accessible is the electronic form of the document? There are more than a few products that have poor electronic output options. What you do not want is to have to print your records and ship them to the billing company who then scans the paper back into an electronic form. A simple means for batch digital output of charts and searching the EMR database after the fact will greatly simplify the billing process as well as administrative and quality improvement efforts. Be sure you can create open ended queries that can get you answers to basic questions such as how many pediatric patients do we see on weekend nights or who was that guy with the big subdural hematoma last week, etc. This is where having your billing company advise you can help a lot. Marina Medical Billing Service can interface with virtually any system of documentation from handwritten paper to the most sophisticated EMR due to its proprietary mPower system, but accessibility to the database helps a lot.

If it sounds daunting to evaluate EMR products, it is because it is. There are a myriad of details that can make or break the Emergency Department flow and the devil is in the details. It is probably impossible to create the ideal system with present technology until you can address the computer like Scotty in the old Star Trek series. But spending the time evaluating the options before you leap can minimize the disruption and pain of transitioning to an EMR. One last thought: The period of implementation of an EMR is an ideal time to consider using scribes in the Emergency Department. As you have read in this newsletter before, scribes can transform your practice by freeing you from the computer screen and getting you back to patient care and can actually improve your reimbursement. You can be an ER doc again rather than the data entry clerk!

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