

# Get with a Program

A Practical Approach  
to EMR Implementation



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## Introduction/ Mission

Electronic Medical Records (EMRs) are becoming the norm in medical practices across North America. Thank goodness. *The era of paper charts, paper cuts and endless inefficiencies will hopefully soon be over.*



As one of the most important and respected professions, it is really shocking that it has taken so long for us to embrace technology as a tool to achieve better patient care and to have more efficient and enjoyable practice lives.

One of the barriers to incorporating EMRs into medical practices is the perceived, and real, amount of work it takes to make the change from a paper-based practice to a computer-based one. However, in my opinion, *the benefits of an EMR to one's practice are so great, that it warrants the effort – and the effort need not be overwhelming.*

**My goal** is to show you a very specific and practical way to make the transition – at your own pace – with clear steps to ensure that you are reaping the benefits of computerization every step of the way.

I think we all know that the best and easiest way to use an EMR is to incorporate it on the first day of opening a practice. This is absolutely the ideal and for those new physicians out there, I think everyone would recommend starting with an electronic medical record.

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The utilization of EMRs is inevitable and the faster we can start making it the standard of care for our patients, the better that care will be.

The real challenge is how to help established physicians make that transition from paper charts to an EMR while still caring for your patients and maintaining your business. This is the proverbial “fixing the airplane while in the air” scenario.

Too many times, I have seen physicians start the process but then get stuck in limbo for years where they are getting the worst of all worlds by using paper charts and an EMR together. This is a necessary step in the process, but it is a negative step when it is done with no plan in place to move forward, and with continued reliance on the paper chart.

By reading this, you will be able to create a specific plan to use your EMR efficiently and to keep moving forward to the ultimate goal of being fully computerized. It may take some time, but the benefits will start right away. And when you reach that point where you are using the technology available to your full advantage, *you will wonder why you didn't make the switch before!*





This book is divided into 3 sections:

***Section One: Preparation***

Learn what specific issues need to be addressed in order to select the right EMR and be ready to use it.

***Section Two: Transition***

Discover the important factors to consider in order to make those early days go as smoothly as possible.

***Section Three: Moving Forward***

Learn systematic approaches to key tasks in your practice so you can choose your pace in advancing the usage of your EMR.



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## About Me



You may be asking yourself who am I to be giving advice about EMRs and conversion in a medical practice. This is an absolutely valid question and I believe I have had some experiences that make me uniquely qualified to address these issues.

I am a family physician in London, Ontario, Canada and I am currently in a full-time office-based (and computerized) practice.

I did my medical school training in Vancouver, at the University of British Columbia and did my family medicine residency at the University of Calgary in Alberta. I have been in practice since 2003. During my residency, my training site began the process of converting to an EMR system and this was my first real exposure to computerized records. I was not directly involved in the conversion process but I was fully aware of the immediate improvements in documentation and relative ease of use of the system. I never wanted to use paper charts again! I was exposed to several other EMR products during my initial 2 years of practice as I did numerous locums at various offices throughout the province of Alberta.

My next stop was White Rock, BC where I moved with my wife to join a paper-based office with 3 physicians there. Thankfully, we converted to EMR shortly after my move, and I was intimately involved with the transition process.

We were fortunate to be part of a pilot project and had significant support in the transition and change management process. I learned a lot through that program and am grateful for the help we received; at times, though, I did wish for more practical and specific tips to help with our real

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issues of converting while still running our practices. Even through all the challenges, I can honestly say I felt the benefits of EMR usage almost immediately and soon I was using it for the majority of my day to day tasks.

I do want to take a moment to emphasize that I am not a computer whiz; I am not particularly advanced with technology in general. Prior to using EMRs, my main interaction with computers was for simple email, word processing and basic internet surfing. My biggest advantage in utilizing electronic medical records, I feel, is having taken a keyboarding course in high school! So please do not feel that you need to be a computer genius to use these programs.

In 2008, my wife and I decided to move to London, Ontario to be closer to family. After my experiences with primary care improvement programs in BC, EMR implementation and usage, and a variety of office settings, we decided to start our own medical practice from scratch in order to create the ideal work environment.

*Our mission: Improve Patient Care, Enable Physician Health and Revitalize Family Medicine.*

One of the most obvious and important tools to help us be true to the above statement, is the proper use of a good EMR. We had the opportunity to do the ideal and start from scratch with an electronic medical record and did not want to miss the chance.

After careful consideration, we selected our vendor and continue to utilize it more and more to achieve our goals and mission. Presently our clinic, *The Core Family Health Centre*, houses 2 family physicians, 3 physiotherapists, 4 massage therapists, 3 psychotherapists, a pedorthist, 2 receptionists and a Registered Practical Nurse who are all utilizing our electronic medical record system. My wife, Andrea, is one of the psychotherapists, and our 2 young boys, Kashi and Paxton round out our team.

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## A Note to the Reader

This book has been created to help physicians optimize their practices by assisting with the complex task of converting to an EMR system. It is not intended to promote any particular vendor nor provide professional services. This book cannot replace the expertise of consulting professionals who provide assistance specific to your particular situation.

I have not been paid by any EMR vendor to create this e-book. I have used 7 different EMR programs, and obviously am using one for my current practice. I am happy with my choice but am aware of other equally effective products out there as well. This material will help any physician with any vendor and the suggestions made here should be *applicable to any available EMR software*. My experience in practice and with EMRs is in Canada although I expect most of the principles would apply for the United States and other countries as well.

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## Section One:

## Preparation

### First, you have to believe.

Chances are, you have already realized the huge potential of electronic records and the inevitability of the demise of paper charts.



But just in case you're not convinced, let's look at some of the biggest benefits.

#### **1. Efficient**

Electronic Medical Records are a time saver. So many aspects of your practice will be streamlined once your EMR is used effectively.

- Prescriptions – Refills are done with a click of a button
- Drug Interactions – Complete drug reference books and interaction checks are included with most software companies

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- Referral letters – Produce elegant, detailed referrals which include all pertinent history and investigations. All you have to do is type a brief reason for referral statement and the EMR can do the rest!
  - Documentation – Whether by typing, dictating or using templates, you can soon learn to document your encounters quickly and with more information captured than ever before.
  - Information Organization – No longer will you have to endlessly flip through the chart to find that consult letter from 3 years ago!
  - Home Access – With an EMR you can easily chart or review information at home without having to carry stacks of files with you.
  - Reviewing Labs– Save time by no longer having to pull charts to remember why you ordered that test!

*By utilizing your EMR fully, you can earn more money by seeing more people per day, doing your paperwork/medical legal forms quicker and by freeing up more time to do whatever else you love to do. The extra money spent on your EMR can easily be made up in your work efficiency.*

In some provinces in Canada, you can also utilize your EMR to maximize potential bonuses for meeting certain standards of care. Not to mention that most provinces are now offering incentives, subsidies or will outright pay to convert to EMR!

## **2. Effective**

EMRs enable you to use technology to organize your data and use it to incorporate clinical practice guidelines and recommendations quickly and efficiently into your practice.

For example, diabetes flow sheets and cardiovascular risk calculators are incorporated into most programs and enable you to view the information and make calculations with no extra work on your part.

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You will also be able to create patient registries to group your patients with common conditions to ensure they are receiving appropriate care and achieving their targets. This requires electronic data collection and management. Certainly you can create your own lists and flow sheets, and use innumerable calculators and handouts, but the efficiency and effectiveness of having this done automatically cannot be overstated.

### ***3. Enjoyable***

Yes, it is possible! Change is difficult but sometimes change is as good as a rest. By learning more effective ways to do things, and knowing that you are improving your patient care as a result, you will feel incredibly gratified. Combine that with a more efficient practice that lets you spend less time doing paperwork and more time with your family, and you've got yourself a practice that you will enjoy more and more.

### ***4. Exit strategy***

If you are planning on retiring in the next 2 to 10 years, the only chance you'll have to find someone to take over or buy your practice is if it is computerized. No one wants to read your handwriting and be forced to adopt your particular chart organization method. By going electronic, your practice is automatically more desirable and the likelihood of leaving your patients stranded is greatly reduced. So think of it as part of your retirement plan - a gift to yourself and to your patients' future.



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# Getting Ready

Now that you've decided that switching to electronic medical records is what you want and need to do, how do you start preparing for that change? Before you even start thinking about what company or program to use, you can start taking some steps to ensure that the process goes as smoothly as possible.

## 1. Reality Check

This is a big change and will affect you, your colleagues and your staff. This is not something that can be done successfully over a weekend and on the fly. You can expect the process of deciding on an EMR and getting to the start, or "Go Live," date to be 3 months at the very least.

Depending on the size of your group, you can also expect there being a need for several meetings to discuss the various steps in the process. Taking a little bit of time to set the stage for this transition can make all the difference.

## 2. Team and TimeLine

Decide on who will be involved in selecting your electronic medical record program. If you are in a large group, you need to decide how many people will be involved in the selection process for your EMR. Ask the following questions:

- *Are all physicians going to be involved, or will there be a sub-group who will then decide on behalf of the entire clinic?*
- *How are you going to determine which EMR to use? Does it have to be unanimous, a simple majority or something in between?*

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- *What is the time line for this decision?* By putting a deadline in place, it focuses decision making and ensures that they make the time to do the research required if they truly want their opinion heard.

These are very important considerations to make as this EMR selection process can take a long time if there is a large group with differing wants or needs. And it can create tension if the parameters are not clearly outlined in advance.

### **3. Preparation of Patient Charts**

One of the biggest things you can do to prepare for EMR conversion is to **get your charts ready** to be inputted into whatever program you choose. The key to this is ensuring that your *chart summary page is up to date*.

Hopefully you have some version of this in each chart already, where there is an up-to-date list of current medical problems, past medical history, family medical history, medications, allergies, vaccinations, etc.

Starting now, confirm the information on the summary page with each patient so this data is as clear and concise as possible. Also try pulling some of your older patients' charts and double checking their information. I would even recommend making a new summary page for each patient, perhaps in a different colour, so you can easily see whose charts you have updated and to ensure that the page is neat and easy to read.

### **4. Update Computer Skills**

Once you have decided that an electronic practice is in your future, it is a good idea to take steps to improve your comfort level with computers, if necessary. Ensure that you are comfortable with the basic keyboard layout and with the use of a computer mouse.

I would also highly recommend improving your keyboarding skills, even if you do not intend to type as your main means of inputting data. And do not be intimidated by keyboarding, as even a slow typist can often be effectively faster than they are at writing.

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By being comfortable with keyboarding you will always be more confident and resourceful using your EMR. There are lots of excellent typing tutors available online or through computer software stores. Two highly rated ones are Typing Instructor Platinum and Mavis Beacon Teaches Typing Platinum.

If you think that you will be dictating as your main means of inputting data, it would be worthwhile to start looking into programs that can help you do that. Most EMRs are compatible with Dragon dictation software (Dragon Naturally Speaking for PCs, Dragon Dictate for Macs).

It does take some time to “train” it to your individual voice and thus it is best if only one user uses each program. It is not inexpensive, so be certain that you are going to use it prior to committing to it.

### ***5. Staff Preparation***

Be aware that your staff will also be intimately involved with this transition process so be sure to include them in the preparation. Certainly they need not be involved in the decision-making – although that may be helpful in some circumstances.

It will be important, however, to assess their comfort level with computers and update their skill-set if need be. Also keep in mind their stress level as sometimes their workload increases dramatically during the transition process.

My experience, however, has been that the staff tend to do fine with the conversion, provided that not too much of the data input/entry is dumped on them. Generally, the staff’s job efficiency improves dramatically right away and thus is excited for the change to computerization. It is the physicians who tend to hold them back!

As you can see, there are a lot of important things that can be done to ease the transition to Electronic Medical Records long before you even pick a program. By taking these steps to prepare, you will be well on your way to an efficient electronic practice and a smoother conversion to it.

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# The Top 12 Factors in Selecting Your EMR

The next step is selecting the program vendor for your practice. This is a **huge** decision to make, as your product will basically BE your practice for hopefully the rest of your career. Switching between products is often as difficult as switching from paper to EMR in the first place, so you want to be happy with your first choice.

I would recommend trying at *least 3 different EMR vendors* to get a look at a variety of products and layouts. Consult colleagues you trust to get their opinions of their current EMRs. I would recommend not booking multiple companies to come in on the same day as this is a guaranteed way to over-stimulate your senses!

My experience with the sales pitches from EMR vendors has been that they tend to focus on demonstrating how much better they are than paper charts. Well, in my mind, charts done on Microsoft Word are better than paper charts! So I think the key questions involve comparison between EMRs to see which one can do what you need best.

Here are 12 recommendations to focus on when reviewing programs:

## **1. Initial Visual Appeal**

How do you feel when you see the screens and charts? Which ones give you a *headache* and which ones do not? Honestly though, when looking at EMRs for the first time, they all will give you a bit of a headache as you process the information and compare them to what your current workflow is like. I guess the better question is, "*Which one gives you the smallest headache?*" You will be looking at this screen for the majority of your workday so the layout, colour scheme, and ease of use will play a huge role. *Don't discount your initial impressions.*

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## 2. Basic Functions

Next, I would recommend *focusing on the things that you do frequently*. How easy is it to document office visits, review labs/X-Rays/consult letters, write prescriptions, and write referrals?

\* You want the things that you do multiple times an hour or day to be the easiest and most intuitive.

If you can't stand the prescription portion of the program and you write a prescription for almost every patient you see, there is a good chance you are not going to be happy with that product.

## 3. Training/Support

How many hours of training does the company offer? How is that charged? Is it an hourly or a flat rate? Is it done in person or remotely? When training is done, what kind of support do they offer? If you require phone support, how easy is it to get someone on the phone? If your product goes down and you're unable to work, you can't afford to be on hold for hours or wait 2 business days. Also, is the support included in your contract or extra? These are key factors on the service side and will affect the stress level of your staff and physicians.

## 4. Scheduling/Billing

You most likely already use some sort of software package for scheduling and billing and the features of these section tend to be fairly standard between EMRs, so this shouldn't be a huge issue.

However, make sure your staff has a chance to view the EMR vendor's scheduling and billing software and that they like it! We all know the importance of a content staff and if they don't like the new product, you will potentially have to deal with issues for reception for the foreseeable future. Also ensure that the EMR company is able to extract your patient demographics from your current scheduling/billing software... and preferably at *no cost!*



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## 5. Company stability/Future Development

Electronic Medical Records companies are relatively new to the marketplace and there is a lot of fluctuation in these companies. Numerous start-ups took on this challenge when the opportunity presented itself but several of these are already no longer in existence.

It is important when selecting your vendor, for the life of your practice and your career, that you are confident that they will *be around for the long term*. Be aware of how prevalent they are in the market and the financial backing they have to meet the challenges in this market niche.

You also would like to have some sense of what improvements/research they are doing to continually improve their product. In some provinces in Canada there are certain criteria the companies have to achieve/maintain in order to continue to qualify for physician funding. If they do not have the means to continue to meet these targets, then you may be forced to make a change in your charting software in order to keep your funding.

But you also want to know that the company is always looking to improve their product and listening to feedback from physicians to help provide the best care most efficiently.

## 6. Cost

This should not be the only factor in determining which EMR you choose but you need to look at the real numbers. How much does the software cost? How much are the likely hardware costs? Is there a minimum duration of contract? Is the training included in the cost and if not, what is the cost of that? Are upgrades included or are there additional costs when getting the latest versions?

Your best bet is to look at the total expected costs over a 2-3 year period when comparing costs between vendors. Be sure to include training as part of that analysis. Cost is important, but remember that this is a long term investment into your practice so you want to invest wisely...not cheaply.

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## 7. Local vs. ASP

What does this mean? ASP stands for **A**pplication **S**ervice **P**rovider. It essentially means that the product is run on the company's servers and equipment and is accessed via the internet; therefore you have no need for a local server in your office.

This also means that the vendor is responsible for storing, maintaining and backing up the data in the program. Your practice data is still yours but they maintain it. This is quite beneficial and means you only need basic computers and internet access to utilize the product.

The other advantage is that any upgrades to the product automatically are spread to all users since it is upgraded at the central site. Also if you are in a group that has multiple sites, it is very easy to be connected with each other and share charts when appropriate, as in holiday or after-hours coverage.

In a local model, you need a local server in your office to store the program and the data. This is often cheaper in terms of software costs but you do need to purchase more hardware and be sure you have good hardware support. Also it will be the responsibility of someone in the office to back up the data regularly and keep a copy outside of the clinic. While still possible to link to other clinics, this is more of a logistical challenge. Software upgrades also typically require more work and often more cost.

Overall, the ASP model seems more appealing and does seem to be the way things are heading. However, some physicians do have an issue with not having total control and responsibility of their own data. This is a decision that will have to be weighed within your office and group.

## 8. Remote Access

Another common feature with most EMRs will be the ability to *access the program (and your charts) remotely via the internet*. This would enable you to complete your charting at home when necessary.

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It also makes it much easier to handle any issues that come up unexpectedly, whether related to an urgent patient issue, needing to reschedule things due to weather, family emergencies, or just to double check something when it crosses your mind at home. It also would enable you to check labs or do some work while out of town if so desired.

It is an extremely useful feature and I would definitely recommend you determine the ease with which this can be done with any product you test. Also discuss how functional the product is in terms of speed when accessed from home or elsewhere.

### ***9. Laboratory Results***

Results of laboratory investigations are able to be imported into patients' charts directly from the lab itself. This gives you results very quickly and puts the information into the specific patient's chart and not in a generic inbox.

Once signed, it is then part of the patient's record and the data can be searched and used in numerous ways such as in various calculators and flow sheets.

Ask the vendors from which private lab companies or hospitals they are able to receive data directly. See if there is any extra cost in adding additional labs. The more information you can get electronically and the less you receive on paper, the more streamlined your practice will be.

### ***10. Scanning***

For documents that are not received electronically, they will have to be entered into the electronic chart somehow. Most programs will utilize some sort of scanning software to scan papers (consult letters, diagnostic imaging, special tests, paper labs results, discharge summaries) into the program which will then have to be "filed" by staff. This method of filing is much easier than traditional filing but it still takes time. It would be useful to check how user friendly the scanning and filing process is, as it is a daily task that needs to be consistently and efficiently handled.

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## **11. Hospital Interface**

In an attempt to further decrease the amount of paper coming into the office, some vendors offer a hospital interface which enables any labs, discharge summaries, and diagnostic imaging reports that are done in a particular hospital to be received electronically directly from that hospital. This speeds up the time in which you receive helpful reports and decreases staff time, as less scanning is required. See which vendors are able to, or already have, set up an interface with your local hospital; if done, this will be a huge step in improving your office efficiency and decreasing your paper load.

## **12. Power of the Program**

Finally, how good is the program at utilizing the data that you have put in to it? The benefit of these programs is the way that it is able to organize information. Can you use the program to ensure that your diabetes patients are receiving guideline-based care? Can you easily create a list of patients who have not received a pap test in the last 2 years? Can you find those women who have not received their recommended mammograms? Can you generate lists of patients based on certain criteria you set out? What if a drug is recalled? Can you easily find those patients in your practice who are on it? How can you ensure patients are called back appropriately if follow up is not scheduled for 6 months, or 3 years?

These are questions that some vendors will be able to answer and some may not. Now you may not be using this aspect of the program initially but eventually you want to be able to mine all that data that you have put into your patients' charts and use it to ensure they are all receiving excellent care. Certainly patients have to take some responsibility for their own care, but these programs enable us to support them better and fulfill our role as advocates for their health.

\*With these criteria in mind, take your time in picking your vendor. As stated, this will be a very important relationship in your business and practice life, so make sure that you are happy with the selection. Then the real work and fun can begin!

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## Section Two:

# Transition

## Hardware Considerations

Now that you have selected your EMR software, you are now able to make some hardware decisions. Find out what the vendor requires to run their program well. From there, you have some factors to consider:



### *1. Office Layout and workflow*

The set-up of your office and exam rooms may influence the types of hardware you decide to use.

- How many workstations do you require?
- How much room is available in the exam rooms for a computer?
- Do you plan on documenting in the exam room, in a separate workstation in the hallway, or in your office?

These factors will directly affect your hardware choices.

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## 2. Input Device

There are several choices when it comes to how you will interact with the program and each has their pros and cons.

### a. Desktop computers

These are most familiar to everyone and have the largest memory and capabilities of the options. You would be able to use a mouse easily with it and the size is flexible. But they tend to be large and are fixed so you would require one at every site you will be working. They are less expensive on an individual basis compared to the other options but you would likely require more.

### b. Laptop Computers

These have a lot more power now and most EMRs can easily run on one. They are mobile, but not easily in the often fast-paced setting of a medical clinic; however, you may be able to have fewer computers as a result. With that mobility, you must consider the risk of damage, loss, as well as security issues.

### c. Tablets

These are very mobile and offer unique advantages as you can use a “pen” to type or “tap” on the screen and thus utilize templates easily as a means of entering data. The mobility may be very efficient in an office setting, although you would still need a desktop at some location. The risk of damage is still there and the functionality is not as robust as the other options perhaps.

### d. iPad

As of the writing of this book, I am not aware of any products that are currently able to make use of the iPad device, although I am sure this is being developed and will be developed shortly.

One other note regarding Apple products - if the use of their products is a key factor for you, make sure you confirm that the EMR products are available for Mac when looking at the various vendors.

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### 3. Internet Connection and Phone Lines

Ensure that you have *more than enough speed* with your internet connection to optimize the EMR software. Also consider having a back-up internet connection in case your mainline is down.

You want to be able to work no matter what. Several companies offer mobile Hi-speed internet solutions which would work well as a back-up and can be used at the cottage when not at the office!

Also don't be surprised if you have to add additional ports in the wall for internet and phone/fax to accommodate all the devices to be used. It is possible to utilize a "switch" to split one internet wall port into multiple ones and thus enable you to plug in more than one item directly into a port.

You will have to discuss these in more detail with your software vendor, hardware and internet provider to determine your options given your particular circumstances.

### 4. Printers

The number of printers to have is always a question and the answer is always more than you think. Even though the office will be computerized, there will still be the need to print prescriptions, letters, notes, lab requisitions and copies of documents.

I would recommend at least *one printer per physician* if not one per exam room. A centralized printer sounds reasonable but not when you have to walk to it multiple times a day in order to sign what you have printed.

My preference is having a printer in a hallway workstation central to my exam rooms. This way I can use just one printer and can guide the patient out of the exam room to pick up the paperwork as a means of ending the visit, if need be!

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## **5. Scanners**

Ensure that any scanner you purchase is compatible with your vendor's scanning software. This will be used extensively, particularly in the early days of the transition, so you want to be sure that it integrates seamlessly with the program.

## **6. Servers**

These are not inexpensive items so rely on your vendor's expertise in helping you get the best and most suitable device to run their program. This only applies if you are utilizing a local model and not an ASP program.

## **7. Support**

Ensure you have some plan in place for hardware support. The vendor will be responsible for software issues but you need to have a system in place in case you have an urgent hardware issue.

This could be as simple as having a number to call if something happens, to having a contract with a company to do routine maintenance on your system with a guaranteed maximum response time.





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## Input your Paper Charts

Now that you have determined that you are moving to electronic medical records and have selected which program you will use, you need to start planning your attack on the numerous paper charts you have been using and how to get that information into your computer system.

There are two ways information will be put into your charts – by *direct entry* (typing, dictation, templates) and by *scanning*, where whole pages of the old paper chart are copied into the record. With scanning, the information is just available to be read but cannot be used by the system in any other way – as in flow sheets, for example.

Regardless of which program you choose, this will be the *biggest amount of work in the transition process*. To help you through this, here are some tips and philosophies to consider as you move forward with this:

### **1. Start right away**

Inputting data into your computerized record is an excellent way to learn how to navigate within the program and get comfortable with how to enter information as well as how to find it. So once you have access to your system, even before you are actually “live” with the program, start summarizing charts and getting the information in there.

### **2. Look on the bright side**

Even though some of the work of reviewing charts could be considered tedious, you’d be amazed at what you learn about your patients as you review their experiences over the years! It is a great opportunity to ensure your patients are up to date on immunizations and that appropriate follow-up has been done on past conditions.

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### **3. Create an excellent Patient Summary**

As stated before, this should be the basis for all your patient charts. Having a complete and up- to-date summary for your patients with all pertinent information in one simple area will make all future encounters easier.

This will vary between programs but all do have some version of this. This is best done right the first time.

Take the time to have a consistent approach and stick with it. Ideally this will just be a computerized version of what you have on paper, either from your previous practice of keeping it accurate, or from a recent version created in preparation for EMR conversion.

### **4. Be selective with what you scan!**

When deciding what to scan into your computerized charts, **get out the chopping block.**

Almost everyone who has gone through this process feels they scanned in too much. Lab reports from 3 years ago are not helpful today. Do you need to keep every consult related to their right knee pain or is it enough to know that they had a right knee replacement in 2005? Remember that you are not discarding their paper charts and if, on the rare occasion you feel that you need something, you can always retrieve it from storage.

### **5. What to do once up and running on EMR?**

Once you are “live” on your EMR, you have to create a plan on how to input your paper charts while still seeing patients and using your EMR. There are a few things I would recommend.

- For the majority of patients, it will be hard to do this kind of work during the normal pace of a day. I recommend, at the very least, that the medication list is up to date in the EMR for every patient that is seen. You get the most future improvement in efficiency with prescriptions, so invest the time as soon as you can.

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- In any practice, a disproportionate amount of work is created by a small number of patients, often termed, “frequent flyers.” Make a point of entering in their information as soon as possible as you will receive a disproportionate amount of **benefit** from doing so.
  - Create a way to know which charts have been inputted and which have not. Most EMRs will have some way to indicate this on the schedule, so that staff will know which charts need to be pulled and which do not. For the paper charts themselves, a simple colourful sticker may be all you need to show they are not longer needed, but you may have to consider having a few stages:

1. Patient summary has been updated on paper
2. Patient summary has been entered into computer
3. Documents have been selected to be scanned
4. Documents have been scanned in - Chart complete

Obviously, you may not need all these steps and feel free to use fewer or none of them as you see fit.

- For thin, very simple charts, try to do them as you go. Enter the patient profile during the patient encounter and confirm things with the patient, or do it later while documenting the visit. Also pull out any labs/consults that you feel you would like to have scanned in.
- For some patient charts, consider using the paper chart as “Volume 1” and the EMR chart as “Volume 2” as is often done for patients whose records have gotten too big for one file folder. This need not be done solely for exceedingly complex people, however. It’s up to you to decide for whom this would be most appropriate.
- When making a referral for a patient, I recommend taking the time to enter the patient data, or at least the patient summary. This will enable you to create a nice referral letter through the program and will naturally force you to enter a few extra charts into your EMR regularly.

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- In keeping with that, decide how many charts will be inputted per day or week and just plug away. Unfortunately there is no magic formula for this; but by taking the steps above, the process won't be as painful as you had thought. Also, by getting your medication lists in right away, you will start seeing the benefits of your EMR right away which makes the effort worthwhile.

## 6. Who can enter the data?

I do want to comment on the issue of getting other people to enter your data for you, be it extra staff (students, etc.) or part of your usual team (receptionist, nurse, etc.). I have seen many people try variations of this but it generally has not been very successful. It is very difficult for another physician, let alone someone else, to know what information a particular physician would want to have at hand in a chart.

I think a doctor could review the charts and create an updated patient summary for a qualified staff person to enter, but I think this could be a lost opportunity to get more experience with the program. I also have seen simple little errors in the entry of the information which creates frustration and confusion. Even something as little as having the data entered with all-capital letters can create a subtle annoyance when looking at your own charts for information.

This initial entry of up-to-date information is the key to having a well functioning, efficient electronic medical record. As such, I would encourage you to invest the time in doing it as well as you can; but if you feel confident in your staff to know what you need and how you would want to see it, then delegate and monitor the results closely.

*In summary*, this step in the process is the most difficult and frustrating issue in EMR conversion, and rightly so. But if you've made the financial investment into computerization then you need to expect a little bit of personal investment to ensure you get the most out of it. Hopefully, with the above information you will be able to make the most of your time; *enter only what you truly need and start getting your return on investment as soon as possible.*

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## Core Functions

When you first prepare to “go live” with your EMR, it is important to set out what specific functions you need to do confidently before you would feel comfortable using the program in front of patients.

By determining which core functions you need, you will be able to focus your training accordingly and make the transition not seem so overwhelming.



These core functions should enable you to continue your work as a physician while utilizing the program so that you are no longer entering key data into your paper chart. If you are writing information into your chart that you will at some point have to transfer into the computer record, then you are creating double work for yourself. We are trying to be more efficient not less so.

*So what are the key core functions, in addition to the entry of old data as described above, to keep you moving forward within your EMR?*

### **1. Documenting**

You need to be able to document your office encounters into your EMR. This is the basic purpose of the record so you should do whatever necessary to keep day-to-day information into the chart.

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\* This way you eliminate the need to have the paper chart just to remind you what you did last time.

Now this does not mean you have to do everything on the computer, but the basic documentation should be done here (SOAP note or similar).

## ***2. Prescriptions***

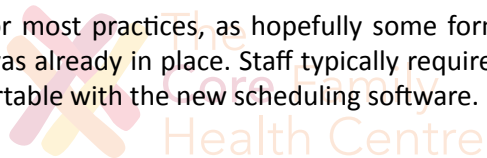
As stated previously, one of the most time saving things you will do on your EMR is write prescriptions. The first time will take a bit of effort but subsequent refills will be many times faster than on paper. So do your best in trying to enter patients' current medications and doing prescriptions with your EMR. If you fall behind, you may revert to paper prescriptions, but remember to go back and enter them in your EMR.

## ***3. Scanning***

Ensure that your staff is aware of who is responsible to scan **new** documents into the computer and file them accordingly. Note that this does not change the physician work flow at all. Documents/letters, etc are all reviewed in the same way as previous. However, after it has been reviewed and dealt with, these documents should be scanned into the electronic record as well as filed in the paper chart. This will be additional work for your staff initially but will decrease as you move along with your EMR usage and no longer need the paper chart. That progression will be outlined later on.

## ***4. Scheduling***

This should be a non-issue for most practices, as hopefully some form of computerized scheduling was already in place. Staff typically requires minimal training to get comfortable with the new scheduling software.



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## 5. Billing

Again, this should be a non-issue. Typically, staff are very comfortable and competent in utilizing the new billing software. If the physician usually does his/her own billing, then the knowledge needed to use the EMR software can be quickly obtained. Overall, there should be no significant change in the workflow.

Either the physician writes in the billing codes on a sheet outlining the day's appointments, and these codes are then entered into the EMT billing software by staff/physician at the end of the day, or the physician enters the billing information directly at the time of documentation. If using a non-electronic method of billing previously, staff will find the newer way much easier regardless of the program used.

## 6. Internal messaging

This is not a crucial aspect of the electronic medical record but most offices find it very helpful, fun and easy. Most programs will have some way of sending notes to staff, other physicians, or even yourself, to take the place of yellow "sticky" notes in the offices. It's a great way to send information, make requests, give reminders, or just keep in touch with your staff. I know many offices where the physician runs in late and leaves after their staff have left, so the notes are the only real way they communicate with their staff! Again it's not crucial to workflow or EMR usage but internal messaging can actually save quite a bit of time so give it a try and have fun with it.

*\*And that's it.* Those are the core functions in your EMR that will get you started and get you moving forward with your EMR. By doing just these relatively straightforward tasks, you will be able to continue inputting old data from your paper charts and new data from your start date onwards. You could stay at this point for a relatively long time and not be adding to your future workload in the conversion process. You will gain confidence with the program and you will become an above average user in no time.

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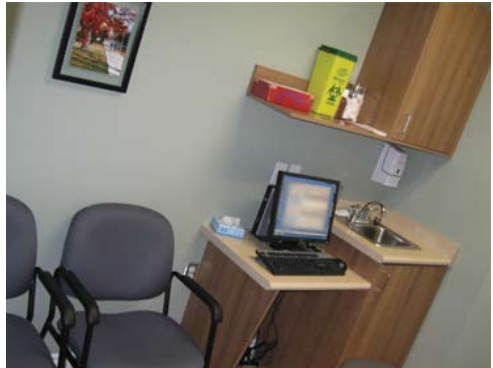
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## Section Three:

# Moving Forward

## Referrals

One of the first features I would utilize when moving forward from the core functions is the use of the referral letter generator in the program.



This should be able to create a detailed referral request which incorporates all the pertinent information in your patient profile that you would wish the specialist to receive. *All you should be required to do is write a brief reason for referral and the program should do the rest.*

Initially you can certainly continue with writing referrals on paper but I would argue that this is an inefficient use of time. In order to create a reasonable referral letter, you would have to write in all of the relevant information by hand, which is the same amount of time that it would take to enter the information into the computer patient profile and has to be done at some point anyway. Once it is done, that referral letter and all subsequent ones will be incredibly easy to create – and you now have an updated patient profile for that patient!



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Depending on which program you are using, you may be also be able to attach lab results and/or relevant consult letters and diagnostic imaging results to your referral letter; alternatively you may need to print these out separately. Check with your vendor.

Follow-up of these referrals on EMR is also somewhat program specific and can be quite a change in the workflow for your office staff. It may not yield as much efficiency compared to paper as other features on EMR, so I would recommend continuing to track them as you have previously. When you are more aware and familiar with the program, you can start using the tracking features in the EMR itself.



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## Reviewing Labs

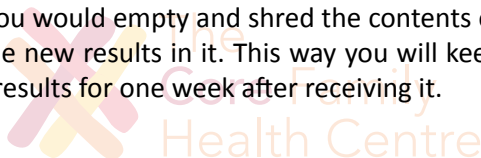
The benefits of reviewing labs on an EMR, at least those which are received electronically direct from the labs themselves, are immense. The time saved comes from multiple avenues. You are able to review labs quickly as soon as they are received without having to wait for the daily mail to reach your desk, ask someone to pull a chart for you, and then wait for that chart to arrive.

Staff time is also saved as there is no filing of the report, no pulling of charts and no filing of the charts after the process. There are no misplaced labs in this work flow, as well.

Getting to this stage comfortably takes some time, but I would suggest the following:

### Stage One:

1. Receive labs electronically and on paper
2. Review labs on paper as you had previously
3. After labs have been reviewed and dealt with, file them.
4. When you feel confident that labs are being received electronically, stop filing lab results and trust that they are in the patients' computer charts.
5. A good transition is to have a box set up with the days of the week in separate files. Place each day's paper lab results in the appropriate file. After the first week, you would empty and shred the contents of each file before putting the new results in it. This way you will keep the paper copy of the lab results for one week after receiving it.



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## Stage Two:

1. Continue receiving labs electronically and on paper
2. Review labs on computer
3. Call patients in via internal messaging system on EMR
4. Briefly review daily lab results on paper to ensure you've received and reviewed everything. Do **not** formally review. Only double check anything that looks unfamiliar and confirm that you've addressed all the abnormal results.
5. File paper results as described above in Stage One, section "5."

## Stage Three:

1. Receive labs electronically only
2. Review labs on computer only
3. Recall patients via internal messaging system on EMR

I understand there is not a lot of difference between stage 2 and 3; any more steps would require further review of labs on paper and on EMR, and I think the amount of confusion, frustration and extra work caused by that type of system, however brief, isn't worth the effort.

Even in this proposed flow, I would recommend stage 2 being as brief as possible. Also note that the above workflow would apply to any information that is received directly into patients' charts. This would include discharge summaries or diagnostic imaging results received directly from a hospital interface, for example.



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# Reviewing incoming mail

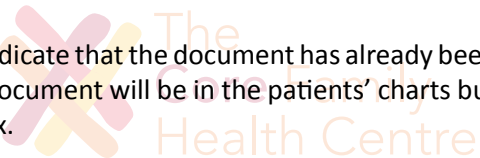
Despite your practice going electronic, you will continue to receive paper mail and numerous documents that will have to be dealt with. The best bet is to try to find ways for them to be received electronically so that no scanning or filing need be done; this would require the vendor creating an interface with the hospital and any private facilities in your community. This may or may not be an expensive proposition.

Regardless, you need to have a plan to handle the incoming paper. There are a couple of options for this.

## *1. Review on paper*

This is essentially continuing to review documents as you had been with paper charts. The flow is the same; the only difference is in the way the documents are filed.

1. Receive paper documents
2. Review and sign, or write instructions on document
3. Send documents to staff to handle as per your instructions
4. Once task completed, or if document just needs to be filed, set aside to be scanned into electronic record
5. Staff scan into record
6. Staff sort into appropriate patients' charts (program specific as to how this is done)
7. There should be a way to indicate that the document has already been reviewed so the scanned document will be in the patients' charts but not in your computer inbox.



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## 2. Review on EMR

In this method, you keep your review process essentially the same as you do for incoming electronic documents, such as labs. There is some pre-work to be done by your staff to have it appear in your computer inbox, but it will make work easier and more consistent for yourself.

You can send messages to staff easier and with fewer steps, and you can document more thoroughly and efficiently.

1. Staff receives paper documents; I would recommend they do a quick review to ensure physicians see urgent results right away.
2. Documents are scanned into electronic records and assigned to appropriate patients' charts (program specific); this should be done at least once per day
3. Documents appear in appropriate physician's inbox.
4. Documents reviewed, signed, and tasks delegated via the electronic record.

This second option does utilize the EMR more effectively, but the end result is the same – documents are reviewed and end up in the electronic medical record. Since that is the case, there is no real urgency in my mind to move ahead with this workflow until ready.

To keep office procedures consistent and minimize confusion, I strongly recommend that all physicians in the practice move forward together in regards to the scanning and document review process. If not, staff would have to scan some documents before physician review and some after, which would increase the likelihood of error and staff frustration.



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## Ordering Labs

Labs are ordered repeatedly throughout the day and it is easy to continue to do so as one would do with paper charts, and take no more time than before. So, given that, it would be reasonable to continue ordering labs on paper until one felt ready to move ahead with the EMR.

Status Quo:

1. Write out lab tests as desired on laboratory requisition
2. Have patient get label from reception to place on lab requisition with name and identifiers. (Or write in patient information yourself.)
3. Record what labs were ordered in your visit note

Within the EMR, the lab ordering function is very efficient in comparison to the previous work flow. In addition to simply being able to order and document labs easily, it is possible within programs to create order sets, so you can order a common group of labs with one click.

For example, one could create a set of routine labs to be ordered for a “male physical,” or for “fatigue” or for a “rheumatologic screen.” Sets could even be created for obscure things, so one would never again have to look up what to order for a thrombophilia work-up, once entered.

EMR Work Flow:

1. Click on desired laboratory tests or order set
2. Print requisition out which automatically includes patient identifiers
3. Give requisition to patient
4. Which labs were ordered are automatically documented in visit note
5. In some programs, a loop has been created by these orders which will be closed when the lab results are received electronically. This makes it possible to do searches for tests that have been ordered but not done.

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## Ordering Radiological Exams/Special Tests

In the paper world, there is really no functional work flow difference between ordering a lab test and ordering an X-ray, CT Scan or Pulmonary Function test. In the computer world, there is an important difference which makes ordering them a challenge on EMR. .

There is typically a standard form for lab requisitions which is not usually the case for hospital tests and radiological exams. Although it is possible to create a standard form on EMR for these other tests, they typically are not accepted by these facilities.

If in your community there is a standard form for tests, or you only use one facility, then it may be worthwhile to create a requisition, or have one created for you, to meet your needs. If there are multiple sites and forms involved, the time and money required to create these documents may not be worthwhile.

### Status Quo:

1. Fill out appropriate test requisition as desired
2. Give requisition to patient or to staff to arrange as appropriate
3. Record what tests were ordered in your visit note

### EMR Work Flow (ideal):

1. Click on appropriate test requisition and complete
2. Print requisition out which automatically includes patient identifiers and ideally any required information (creatinine for example)
3. Tests ordered are automatically documented in visit note (often can open a “loop” as with labs and close it during the scanning process once result received)
4. Give requisition to patient or to staff to arrange as appropriate

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Which scenario is better for an office will depend on a lot of factors including what tests are commonly ordered and available, how many facilities are used, and how friendly is the community to technology and standardization? Although I personally don't find it to be a task that is that is much more efficient on computer than on paper, it is an important and common task, which must be considered when moving to electronic medical records. Hopefully this helps with addressing that issue.





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## Using Special Forms/ Documents EMR Specific

One of the areas of *biggest difference between EMRs* is the various types of standardized forms included in the product and how user-friendly they are. These kinds of documents can be extremely easy to start using or may seem much more convoluted than traditional paper versions. It will be highly dependent on the individual company's versions of these forms.

Some examples of the forms/documents I'm referring to include:

- Rourke Baby Records
- Standardized Antenatal Records
- Cardiovascular Risk Assessment calculators
- Diabetes Flowsheets
- Infant Growth Curves
- Depression Questionnaires (PHQ-9, for example)

Essentially this aspect of the EMR will be a part of the documentation process for an office visit. These can be, and usually are, a big time-saver, but they may be challenging to work into your record. The decision of when to start incorporating these forms will be very individual for each physician and each form.

I would recommend getting the basics down first but keep these in mind during your training sessions as often the usability of these forms makes the paper versions obsolete immediately.

There are also many additional features within an EMR which can be time saving, such as printing sick notes, massage therapy referrals or patient handouts quickly and easily.

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In addition, most programs have the ability to place a common sentence or paragraph into a chart note with just a few keystrokes, which can be huge benefit in documentation of common things such as sore throat visits or birth control advice given. Again these are very individual preferences and I would just incorporate them as one sees fit.

Overall, these items can be very useful as they can pull in data that is already contained within the chart records without you having to re-write it, or they can prevent you from typing the same thing repeatedly for each patient. These take advantage of the data organization within an EMR and can improve your documentation accuracy and efficiency when used properly. Consult with your vendor for more details.



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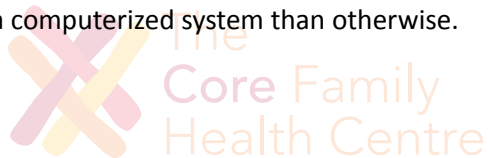
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## Billing

Assuming that office staff has no issues with your new EMR's billing software, this section pertains to those **physicians** who do **not** enter their own billing codes. In general, this is a minor issue, but is obviously an important part of a practice so should be mentioned. Initially, the workflow can be essentially unchanged as previously discussed. A sheet with the day's appointments can easily be printed out, and billing and diagnostic codes can be written down beside each appointment. This sheet is then given to the appropriate staff person in order to be entered into the billing portion of the program.

The next step would involve the physician entering the billing and diagnostic codes directly in the EMR. This could be done at the time of the appointment or at the end of the day. There may not be a lot of benefit in terms of time with this particular work flow, but there is something to be said of taking more ownership of the billing process to ensure that you get paid for the work that is done. Fewer fees are forgotten if billed at the time of the visit and there are often prompts in the program to help ensure that this possibility is further minimized.

This is an area in an electronic medical record where some work is potentially put back on the physician. Even if it simply involves a few clicks to bill, it is a low priority, in my opinion, amongst the other time saving features of these programs. But if a physician is interested in doing this, it is much more feasible within a computerized system than otherwise.



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## Inquiries/ Data Mining

One of the final areas I would like to discuss is the ability of some EMRs to utilize all the data that is entered into the record to help your patients as a whole. Depending on your product, you may be able to create and find lists of patients and then ensure they are receiving appropriate care. For example, registries of patients could be created for:

- Patients with diabetes / COPD / Asthma / who smoke
- Patients on a particular medication or class of medications
- Patients over the age of 65

The possibilities are endless. This has huge research potential when trying to find cohorts of patients that meet certain criteria. It can also help you to ensure that patients are seen appropriately for their preventive care needs and that those with specific conditions are receiving guideline-based care. It can even help you find patients on a particular drug if that drug happens to be recalled.

This is a new area of practice which only now becomes possible due to the data organization found within an electronic medical record. In a paper chart system, this could only be done by using a lot of staff hours, if at all. Within an EMR, it is simple and incredibly powerful as it enables you to look at your whole patient base and break down the diverse needs of your population into tangible groups.

Rather than hoping you deal with everything when a patient happens to book an appointment, you can be proactive and make sure that certain standards are met for everyone. Certainly we can't take over the personal responsibility that each patient should have for their own care, but at least now there is a way to do our part to help them achieve their best health. And isn't that the goal of all physicians?

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## Conclusion

Given the diverse group of physicians and specialists who are currently trying to negotiate their way through a diverse number of electronic medical records in the market today, I hope to have been able to mark a path that avoids any pitfalls and realizes the true benefits of moving to a computerized practice.

Despite the numerous barriers people feel towards making the transition, I have tried to lay out the commonalities that most physicians feel in going through this process. I hope you have been made more aware of the benefits of EMR usage and given some tips regarding how to best select one. I also hope to have shown you the few simple core functions that need be done to start reaping the rewards of computerization immediately. From this strong platform, it need not be a daunting task to quickly incorporate more and more of the features of your EMR and move closer to the great possibilities that an electronic practice gives you.

It is time that we all embrace the technology out there and see its potential in improving our practices. It is a challenge, but it is a huge opportunity to improve patient care, enable physician health and revitalize (family) medicine.

