



# Critical Success Factors for Practice-Wide EMR Implementations: Ten Steps to Maximize ROI



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## Scope of the Problem

Implementing a practice-wide system for Electronic Medical Records (EMR) is no small feat. For most offices, switching to EMR is the most complex technology undertaking they have tackled to date. Compared with Practice Management software, for example, implementing an EMR system is far more complicated for several reasons.

- Use of the system is not limited to a few well-trained administrators. With EMR, every physician will be using the system, many at the actual point-of-care as they interact with patients.
- Not only does each staff member need to be trained on the whole system, but they may be using it very differently. Unlike other software, most robust EMR systems allow different users to do the same thing, e.g., enter a chart note, in several different ways.
- There are myriad issues surrounding the conversion of existing data and charts into the new system. As with many aspects of EMR, there are more than a few options. Will you enter information from some of the existing charts? If so, how far back? Do you just begin using the system going forward? Do you scan in old documents to at least have images available, or do you actually enter some of the data so it is accessible and searchable in the new system?

For many of these questions, there is no right or wrong answer. In many cases, the answer is, "It depends." Knowing what affects your office's answers is the key to a successful implementation. Indeed, the best vendors make specific recommendations for your unique office environment and are able to offer a customized implementation that compliments your workflow, current practice information, and future plans.

Choosing the best way to implement an EMR system is almost as important as choosing the right vendor. With more than 400 software vendors currently selling EMR solutions, it is likely that more than one provides "good software." However, the actual process of implementing your EMR system is more critical (and more complicated) than most offices expect, and the process of implementing that system can affect the overall success even more than the brand of software being used.

Following is an overview of the issues involved, including common challenges, pitfalls to avoid, and specific suggestions to make your entire EMR implementation as smooth as possible.

### The General Challenge of Implementing Complex Software Solutions

Although increasing numbers of physician practices have been adopting EMR in recent years, there has been little academic study of the success or failure of these implementations. Journals are filled with references to EMR and other e-health topics, but most discussions of EMR contain only anecdotal examples or simplistic suggestions.

It is possible, on the other hand, to borrow from industries in which researchers have studied complex enterprise-wide software implementations on a more rigorous academic level. For example, Enterprise Resource Planning (ERP) software involves a comprehensive switch to a totally new system that, like EMR/Practice Management

integration, involves all aspects of the organization. As businesses other than physician practices have adopted SAP, PeopleSoft, and other ERP solutions, academics have studied these complex implementations and discovered various factors that impact the success or failure of the project.

The lessons learned from other complex implementations are valuable to physicians and practice managers seeking to adopt the latest technology while minimizing risk. For example, in *Digital Excellence*, Bowersox, Daugherty et al.<sup>1</sup> summarized four critical factors most likely to cause sub-optimal or failed implementations. Not surprisingly, vendors with experience across thousands of practice management and EMR installations verify the significance of the factors most likely to negatively impact an implementation:

## Four Failure Factors

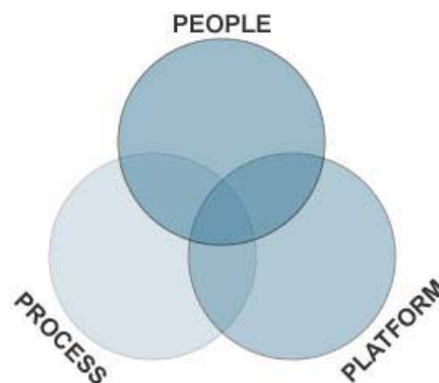
- 1. Unsatisfactory Project Management and Control**
- 2. Lack of Communication**
- 3. Incomplete Goal Specifications**
- 4. Underestimation of Project Complexity**

These factors will be considered in the context of the various stages and decision points of an EMR implementation.

### Setting the Stage – People, Process and Platform

In any change affecting an entire organization, there are three components that must be considered. In this case, the 3 Ps – People, Process and Platform – will be considered as they relate to carrying out a successful EMR implementation, from initial concept to long-term product support down the road.

Of course, the more you know about the implementation-level details and specific options, the better you will be able to make a decision about which vendor and software platform to choose. Simply put, all EMR systems are not alike and, as they say, “the devil is in the details.” Many times, consideration of the people involved and their desired processes leads to the selection of one particular platform over



another because desired operational features or business rule processes are overly complex or simply not available in certain systems.

On the other hand, although robust features and flexibility are generally desired, increasing the number of options can affect implementation requirements and possibly create more burdensome training issues. Some software systems may also include certain desirable features, but the user interface can make those features practically unusable without a prohibitive amount of training. At any rate, some of the more detailed implementation issues discussed here, particularly with regard to higher end software with more options and greater flexibility, may also raise important questions that should be asked before purchasing decisions are made.

Additionally, it is worth noting that the multitude of options available in robust EMR systems requires office decision makers to think creatively and remain open to a variety of ideas in many respects. Although it is possible for an EMR system to duplicate the current workflow procedures followed in a particular office, such duplication is often not the best option. For example, given the fact that multiple staff members will now be able to view the same chart at the same time from different locations, it stands to reason that previous workflow patterns can be shortened and *improved* with EMR.

Those practices that start with the question “What’s possible?” more than “How can we replicate what we’ve always done?” are likely to benefit more from the implementation of an EMR system and see faster and higher returns on their technology investment. That being said, there are several things you can both do and *not* do to give your EMR implementation the greatest likelihood of success.

## **Preventing Failure Factor 1 Unsatisfactory Project Management and Control**

### ***Critical Success Factor #1 – Select the right internal leadership team***

At the outset of EMR planning, it is important to create an internal EMR committee and select the right people to serve in this important role, with a physician or office administrator in the role of chairperson. The committee should meet every week or two throughout the implementation to review progress and make decisions with representatives from each of the operational and clinical departments. The best people for this committee are the ones from each area more likely to be champions of EMR. You want people that will embrace change, contribute enthusiastically, and have the respect of their peers.

The goal in forming an EMR committee is twofold: to garner enthusiasm throughout the committee that will spread to everyone in the practice, and to set up realistic project management processes and a group that is accountable for making sure they are followed. As discussed below, it is very important to set realistic expectations for the EMR implementation, and the EMR committee needs to be familiar with the ultimate goals and benefits to working in a practice with a fully functional EMR system. This vision must be driven from the top down, and it will help to carry everyone through the details of making the necessary system-wide changes.

When representatives from each department meet regularly, the practice has the best chance of avoiding one of the four key failure factors listed above: insufficient project management and control.



### ***Misys Factor: The Misys Project Leadership Team***

In addition to your internal leadership team, Misys also selects a leadership team based on individual practice needs. The team typically includes the following implementation personnel:

#### Misys EMR Implementation Manager

Coordinates the set-up of Misys EMR. This includes coordinating the implementation meeting to better understand your goals and workflow, developing installation and file-build timelines, directing training for all staff, and supporting the practice through the pre-live and post-live of Misys EMR.

#### Misys EMR Field Engineer

Responsible for the installation and coordination of all hardware and network configurations and responsible for ensuring "critical stability." This includes being familiar with your unique issues and needs, and making sure that your system is always up and running successfully.

#### Misys EMR Training Managers

Provide training to physician practices as they implement Misys EMR. The training managers train users on the features and functionality of Misys EMR while staying focused on the goals for the individual practice.

#### Misys EMR Client Support

Provides ongoing EMR support for practices.

All the Misys EMR members of your team work together to ensure that your options are all considered, the best decisions for your practice are made, and any issues are handled as expeditiously as possible – from start to finish.

## Preventing Failure Factor 2 Lack of Communication

### ***Critical Success Factor #2 – Communicate the “What’s in it for me?”***

Do not assume that everyone in the practice is equally motivated to make the change a success. For some, the ultimate goal may not be readily apparent as they struggle to learn new systems. Be ready to remind people of the benefits and convenience of an EMR system, and reinforce from the top down the optimism concerning the ultimate success of the implementation.

Pay attention to the “What’s in it for me?” for each different kind of user, too. Once the leadership committee is in place, it is important to make sure that all the employees are motivated. It is important that everyone, not just the decision makers, see the value from his or her own perspective. Ultimately, the EMR will return greater benefits if everyone is *motivated* to make EMR work because they see a personal benefit in their work day, not just because they have no choice.

People can handle a big change if they understand the importance and the big picture. One thing to keep in mind is that if the end users have not seen the product demonstrated, it may be the job of the implementation team to make sure that everyone understands the benefits – the *reason* for the change. You can do this by asking about some of the more tedious tasks that employees dislike and explaining how one or more of these may be eliminated with the new system.

From the top down, the best mindset to communicate is “We’re all in this together. This will help us all do our jobs more easily, and it’s going to help our practice be more profitable, which is good for all of us. We need to have a positive attitude in order to make the most of the transition.”

Lack of communication is one of the leading causes of problems in the implementation of complex software solutions. Creating a plan from the beginning to encourage good communication throughout the project can make all the difference. Welcome constructive ideas, reward positive suggestions, and discourage griping. Check in with people regularly, even asking simple questions, such as, “On a scale of 1-10, how comfortable are you with what we learned today? Are things going too fast or too slow?”, etc.

## Preventing Failure Factor 3 Incomplete Goal Specifications

### ***Critical Success Factor #3 – Analyze the office workflow***

Once you have selected the people to lead the implementation and set the proper framework for ongoing communication, you must see to it that everyone is focused on the same goals. You cannot establish detailed EMR workflow objectives until you have a thorough analytical understanding of the current situation.

Both the vendor (external) and EMR committee (internal) leadership teams must have a complete understanding of the current workflow of the office. It is important to understand every function of every job to understand how tasks are accomplished prior to the EMR implementation.

Of course, the internal committee with representatives from every department will have to educate the external implementation team on many of these current task and workflow issues. Likewise, the external team will educate the internal employees on the different options with the software, listen for opportunities to improve efficiency, and share ideas for different ways of doing things based on their experience in other implementations.

All medical professionals know that practices differ from one to another in a variety of ways. One cannot assume that the workflow of one office is like another. Indeed, a large part of the EMR vendor's responsibility is to *listen* to the internal EMR committee to understand the current practices and workflow. The result should be intelligent recommendations based on the specific needs of that practice.

As your implementation committee discusses all the options, the effort to analyze both the current workflow and the desired outcomes also serves to combat the key failure factor – incomplete goal specifications.

#### ***Critical Success Factor #4 – Create specific and measurable goals***

As the teams work together exploring current processes and future options, they can better and more accurately set specific goals for desired outcomes. On an implementation timeline, the pre-implementation meetings are the time to discuss all the processes in an office to make sure that every area in the practice capitalizes on the benefits of EMR.

In order to maximize the return on investment, specific goals must be established. For example, an implementation is more likely to be considered successful if goals such as “decreasing outside transcription costs by 50% within 9 months” are met. Such goals are measurable, in comparison to a goal of “making the office more efficient.” Each department leader should also have specific goals in place for their individual areas. Incomplete, immeasurable goals like “get everyone trained as quickly as possible” are more likely to cause problems and confusion. Success must be defined ahead of time.

Keep in mind that walking you through the process of setting up goals is the job of an experienced vendor. Implementations are definitely not a matter of just setting up the software and sending in a trainer. As you can see, there are many considerations and options to consider.

### ***Critical Success Factor #5 – Develop your strategy for entering existing data***

Another critical factor for successfully implementing an EMR system is putting together a strategy for entering the practice's old data. Specifically, you must determine what portions of the existing charts are going to be included in the electronic medical record, and how far back you will go. Once the decision has been made, a plan must be developed that addresses the challenge of getting this information into the new system.

- How are you going to add old medications, problems and allergies?
- Will you have a medical assistant back-fill this information prior to the patient's first visit with a live EMR?
- Will the providers and nurses enter this information at the point-of-care during that first visit?

Obviously, the real value of an EMR system is seen when all users have access to data whenever and wherever they need it. When this happens, it is impossible for anyone not to notice the significant efficiency improvements that come from the software.

#### *Factors to consider regarding legacy data*

How much "old data" you enter into the EMR system before going live depends on office preference, the needs of particular physicians, and the factors of time and money. There are cases where no data is pre-loaded, leading the practice to use the EMR system for all new patient visits after the go-live date, but charts are still used for looking up historical data. As time goes by, paper charts are naturally needed less and less often. This is not the recommended path for an EMR implementation, but it is one that can work in cases where pre-loaded data is not possible.

Most offices take the time to pre-load varying amounts of existing data before going live with their EMR system. In these cases, patient visits can often be handled without the need to pull paper charts from the beginning. The more information that is pre-loaded, the faster that information can be used to increase efficiency.

Choosing the best route is simply a matter of knowing all your options, examining the resources (time and money) required for each option, and making a decision. Your implementation manager will again be helpful in detailing all of your options, but physicians and managers will have to decide together which method to use.

Typically, the most viable solution is somewhere in the middle. At some point, your practice will need to select which data is going to be entered. Some information, such as a current medication list, is more important than other information, such as vital statistics from an office visit two years ago. Also, most solutions employed by practices today usually include both scanning some data – old chart pages so they can be instantly accessed if needed – as well as entering other important data via a keyboard.

It is easy to assume that simply scanning in old charts is the most efficient way to get data into the system. On the plus side, many pages can be scanned in a short amount of time so that an image is available to all at the click of a button. On the other hand, it may be more cost effective to go ahead and enter in problems, medications, allergies, and certain other information at the outset. The benefit of entering old data, for example, includes the ability to search and pull up the actual data quickly as well as the practical

value of not having to go back and forth from paper to electronic as often or for as long of a time period.

## **Preventing Failure Factor 4 Underestimation of Project Complexity**

In literature about technology, there is a phrase for making a wholesale change based on technology improvements. Discontinuous innovation<sup>2</sup> refers to innovations that are not merely better than yesterday's system but are a whole new way of doing things.

Switching your practice to EMR technology constitutes a discontinuous innovation, and as such, there are several research-based principles to keep in mind. For example, the discontinuity of the technology itself, i.e., the contrast between the new system and "the way we've always done it," can be a cause of one of the four main failure factors: underestimating project complexity.

In speaking to medical practices that have implemented an EMR system, it is difficult to find one who would prefer to go back to the old way of doing things – lost charts, illegible notes, and wasted time. Still, the ease of getting to the ultimate goal can vary depending in large part on the planning that goes into the project, particularly with regard to the factors discussed above: selecting a strong project management team, laying the groundwork for excellent communication, and establishing clear, measurable goals and objectives.

The Misys EMR Project Plan, for example, has been developed over many years and following countless complex hardware and software implementations. It includes over 85 specific checkpoints that help to ensure that everything is accomplished properly and efficiently throughout the entire implementation process regardless of the wide variations in people and workflow procedures from one office to another.

Insufficient planning is a direct result of the fourth and final major failure factor – underestimating the complexity of the project. Other results of project underestimation include failure to devote the resources (people and time) required to make sure that the entire office achieves the greatest benefit of the EMR system in an expeditious manner.

### ***Critical Success Factor #6 – Devote sufficient time to training***

Training on the new EMR software should occur as part of a comprehensive plan, not just time allotted on a certain day for what the *user* thinks they want to learn. Initially, it is important to provide users with a short overview, give them the big picture and some details about the most often used features, and let them play with the system. One of the leading indicators of success is a familiarity with where things are located in the system, and this is only done through individual hands-on experience with the product. In fact, the greater the sense of comfort a user can develop with the system and the various user interface screens before the formal training sessions begin, the more effective that training will be.

Any comprehensive training plan should also take into consideration the customization of the system. For example, will the physicians be able to add customizations to the

templates? How will the security of the system work within the office for different levels of access? Questions like these should be answered up front during the pre-implementation goal setting. Additionally, the comprehensive plan should allow for flexibility, both with regard to individual user customizations and office-wide specifics, such as specialty-specific templates.

The best EMR software packages offer a high level of flexibility to both individual offices and users. For example, some users of the same system may be interested in entering data with pen units, while others may prefer tablet PCs or a computer keyboard. Still others who are less willing to adjust their workflow patterns may enter data on the same paper charts for another person to transcribe directly into the EMR.

With this flexibility comes the need to ensure that all of the bases are covered in training. A skilled training manager will be able to help you set up a specific training plan for your office that takes all of your issues into account. Training is crucial to your successful implementation of the EMR system, and understanding what to expect will alleviate some of the growing pains.

### **Practice Makes Perfect – Use “Dry Runs” to make the most of your practice time**

Before you go live, it is a good idea to conduct dry runs using staff members to simulate live patients. If the providers are going to be entering data at the point-of-care, it is important that the physicians and staff do more than just get trained. Entering data with new hardware, be it a tablet PC, computer keyboard or pen unit, is a very different experience than making notes in a chart or dictating. Trying to do it while talking to an actual patient can be very awkward the first few times. As you can imagine, it is much better if those first few times are with a pretend patient!

With an EMR system that employs a well-designed user interface, the data entry and various screens are intuitive and easy to use. However, you will see that using the system with the 50<sup>th</sup> patient will be *much* easier than the first few. It's one of those things that just takes a little practice. And one of the best ways everyone can practice is by conducting dry runs with pretend patients with a variety of symptoms and problems.

### ***Critical Success Factor #7 – Plan to Create “Power Users”***

One important step to take is to make sure that there will be one or two “power users” in the office. Just as the main EMR committee members fulfill an important role for the office, the availability of one or two more highly trained users can have a very positive, lasting impact on the success of the EMR implementation. In other words, one of the full-time employees should be “assigned” the task of developing a high degree of proficiency on the new system and given the time and resources to do it.

Most users attend the training, start using the system and learn what they need as they need it. Many will find it helpful to be able to call one or two people they can turn to who are more fully trained to answer questions. The best systems also contain extensive help files and personal client support, but it is always a good idea to have one or more people in the office that are familiar with your internal processes who can always answer a quick question.

## ***Critical Success Factor #8 – Create an Ongoing Plan for Support***

After training, make sure everyone knows where to get answers. Some software vendors may imply that after the training on their “easy-to-use” software, there will be few questions that arise from “fully trained” users. Vendors who have been in the industry for years and have installed more systems, however, know better and will be able to offer a thorough plan for client support when necessary.

One of the most important things you can accomplish as part of the training is to (1) make sure that everyone is comfortable with most of the software functions they will use most of the time, and (2) make sure that everyone knows how to get the quickest answers if they get stuck or have a question.

### **Your plan for “Escalation of Support”**

In fact, a key element of a successful implementation plan is knowing the process employees should follow for getting help and the communication of that process to everyone before the system goes live. One of the things that your EMR committee should do is to develop the “Escalation of Support” (EOS) plan for your office. After people begin using the system and they have a question, where do they go for help? You need to *plan* how all of the individual users should handle the things that can arise when using software, from which colleague they should turn to with a quick question, to which phone number they should call for more advanced telephone support.

For example, if an EMR user is trying to do something and gets stuck, what do they do? A well-planned EOS allows everyone to get the answers they need in the fastest, most expeditious way possible. Note that whatever plan is developed should be reinforced throughout the training. Indeed, the purpose of the best training is two-fold: teach people how to use the system, and teach people how to get answers when they have questions.

This is an example of where putting a little extra thought into the implementation *planning* can make a big difference down the road. People are always going to have questions, particularly in the early months after the “go live” date. Having a well thought-out Escalation of Support plan helps to ensure that the average users’ frustration is minimized, thereby enabling more efficient utilization of the system.

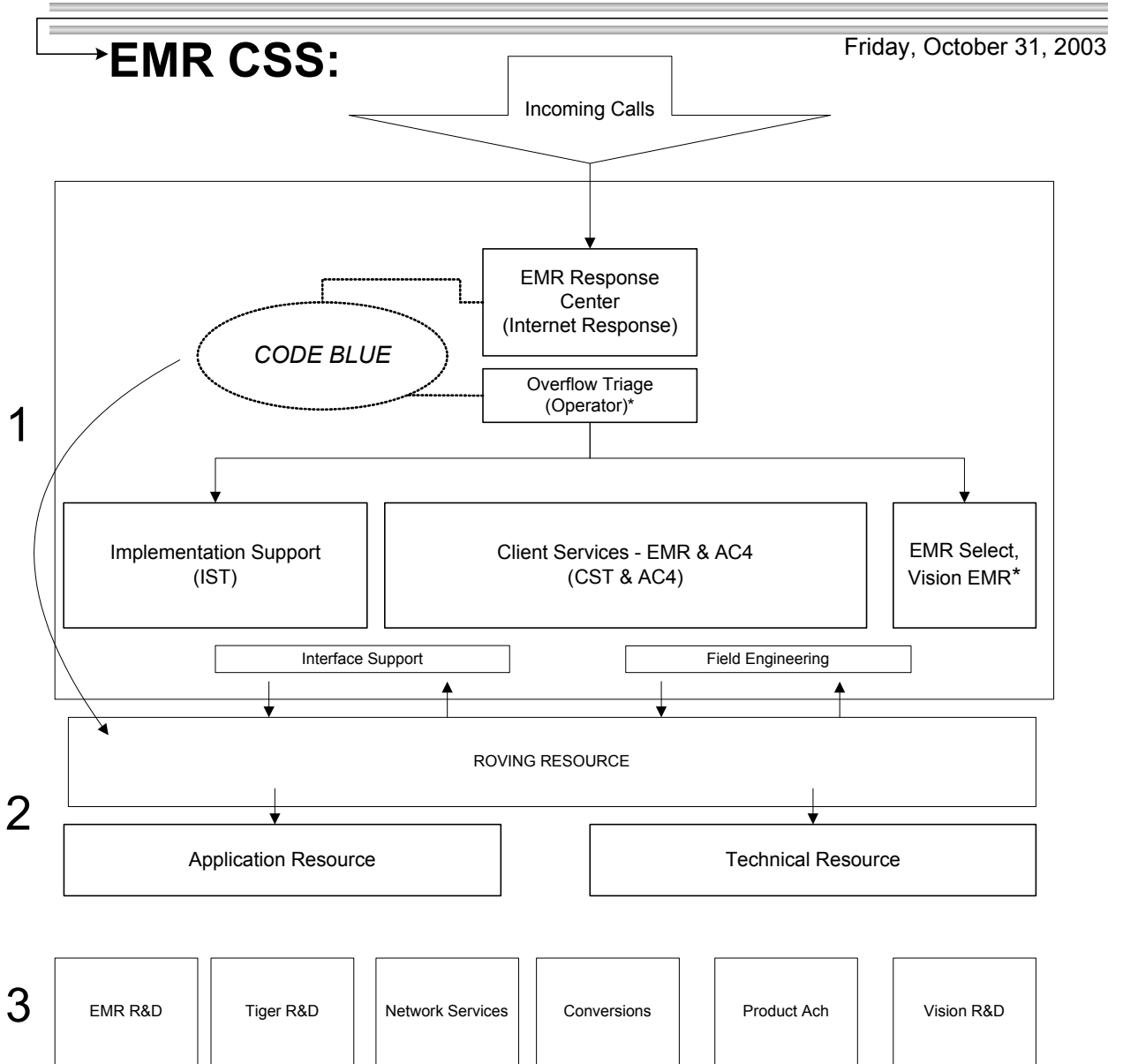
### ***Misys Factor: Client Support Services – Escalation Process***

Internally, Misys Healthcare Systems has its own Escalation of Support Process. Indeed, this process has been refined and tested over many years with ongoing live support of over 92,000 physicians in 18,000 practice locations.

The diagram below shows the process of handling support calls from Misys clients. As an overview, there are two ways for clients to contact Misys for any support issue. One of them is **not** “Send an email to ‘support’ and wait to see how long it takes someone to return your e-mail.”

On the contrary, Misys EMR clients can call a toll-free number to talk to a live person 24 hours a day, seven days a week (true 24x7 live support). In addition to the ability to pick up the phone and reach a support person anytime, Misys gives clients the ability to *log*

*their own calls.* This means that Misys clients can login to a password-protected client web site and document any issues that arise. This gives the client the benefit of being able to describe the situation just one time for whomever may require the information as well as the ability to create *and follow* exactly what has been done for any issue, and when.



### Standard Support: Two Tiers and Code Blue

The Misys EMR Client Support Team is available immediately following your go live date for any questions related to features, functionality and training. When calls initially come into the support center, they are handled based on the nature of the question and

urgency of the issue. Of course, most questions can be answered by our highly-trained support personnel as soon as the question is asked.

In some cases, a higher-level support person is required, and this second-tier support level is also available 24/7. In actuality, 95 percent of the support calls to Misys Healthcare Systems are easily resolved within Tier 1 and Tier 2.

Above that, Misys has a third tier of high-level support called Roving Response Teams that are always on call for any more difficult issues that may arise. These response teams are divided into four departments: EMR R&D, Misys Tiger (Practice Management) R&D, Network Services, and Conversions.

Normal Client Support personnel are highly trained employees with comprehensive knowledge of Misys EMR. However, in the event that a question cannot be answered by personnel in Tier 1 or 2, Misys gives clients the ability to speak directly with R&D employees – those fully involved in the most minute details of the software applications.

Finally, for calls that are of an especially critical nature, Misys has a pre-planned Code Blue process so the call is *immediately* routed to the Third-Tier experts on the Roving Response Teams.

No matter what kind of issue or question comes up, Misys has a large, well-trained, experienced team ready to help. In fact, of the more than 2,600 employees of Misys Healthcare Systems, more than 50 percent are dedicated to full-time customer support.

One of the major Failure Factors – underestimating project complexity – can be prevented by planning an Escalation of Support process, both internally with your power users, and externally with your EMR vendor.

### **Go Live with Confidence – A smart plan makes all the difference**

When it comes to your actual go live date, there are several things to keep in mind. It is a big event the first day that your new EMR system is used with live patients. Even after time spent practicing and solid training, there are several things you can do to make your first day a success.

#### ***Critical Success Factor #9: Leave time buffers throughout the day***

The first day that the system is live, leave everyone a safety buffer and schedule fewer patients. Do not treat the big day as just another day at the office. Once everyone is up and running and experienced with the system, the EMR system should save time with every patient. However, it is not reasonable to expect this on everyone's very first day.

Make sure that fewer patients than normal are scheduled so that if people have questions or issues, it will not cause any problems. Keep in mind that everything will go more smoothly if everyone is properly trained in the first place. Not only will everyone get up to speed faster, but there will be less likelihood of frustration creeping into the

implementation process. Be willing to commit the time and resources to make sure that training is made a priority from the top down. Schedule fewer patients during the *pre-live* period, as well, so everyone will have time to train and practice.

## **Conclusion**

### ***Critical Success Factor #10 Plan to succeed and you will!***

The recurring theme here is simple: careful planning leads to successful execution. And when it comes to successfully planning and implementing a practice-wide EMR system, there is no substitute for experience. The right vendor serves as an excellent implementation partner with hardware engineers, project managers, implementation managers, and trainers who have been through the process with many different practices and can offer the benefit of their experience.

However, no software company can take the place of your willingness to devote sufficient time and consideration to the project. Switching from paper-based charts to an EMR system is a significant change, and the complexities are easy to underestimate. Regardless of the partner you choose, only the professionals in your practice are responsible for your successful move to an EMR system. If you choose the right internal leaders, focus on good communication, create a detailed plan, set measurable goals, and devote sufficient time to training, your implementation should be a success.

Thank you for your interest in EMR software and implementation issues. For convenient reference, the Misys EMR recommendations for successful EMR implementations are summarized below.

Misys Healthcare Systems is the leading provider of EMR and implements practice-wide solutions with physician offices 50 times every month. Our local representatives would welcome the opportunity to speak with your practice about specific issues and questions or provide more information online or by e-mail.

To speak with a Misys representative or get more information about Misys EMR, please contact us via any of the following methods:

**Visit [www.misyshealthcare.com](http://www.misyshealthcare.com)**

**Call (800) 334-8534**

**Send an e-mail to [marketing@misyshealthcare.com](mailto:marketing@misyshealthcare.com)**



# Summary for Successful EMR Implementations

## 4 Pitfalls to Avoid

1. Unsatisfactory Project Management and Control
2. Lack of Communication
3. Incomplete Goal Specifications
4. Underestimation of Project Complexity

## 10 Critical Success Factors

1. Select the Right Internal Leadership Team
2. Communicate the “What’s in it For Me?”
3. Analyze the Current Office Workflow
4. Create Specific and Measurable Goals
5. Develop a Strategy for Entering Existing Data
6. Devote Sufficient Time to Training
7. Plan to Create “Power Users”
8. Create an Ongoing Plan for Answering Questions
9. Leave Time Buffers throughout the Day
10. Plan to Succeed and You Will

## For more information, please contact:

- Visit [www.misyehealthcare.com](http://www.misyehealthcare.com)
- Call (800) 334-8534
- E-mail [marketing@misyshealthcare.com](mailto:marketing@misyshealthcare.com)

## Endnotes

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<sup>1</sup> Bowersox, J., Daugherty, P., Dröge, C., Germain, R., Rogers, D. *Logistical Excellence: it's not business as usual*. Burlington, Digital Equipment Corporation, 1992.

<sup>2</sup> Moore, G., McKenna, R., *Crossing the Chasm*, Harper Business, Revised, 1999.