



Implementation Mistakes to Avoid

How to Effectively Implement your EMR

Created by Lawrence Gordon, M.D.

A practicing head and neck surgeon, Dr. Gordon serves as the Medical Director and Chief Surgeon at the New York Center for Advanced Parathyroid Surgery. He is a graduate of Columbia College of Physicians and Surgeons.

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EXECUTIVE SUMMARY

The American Recovery and Reinvestment Act of 2009 authorizes the Centers for Medicare & Medicaid Services (CMS) to provide incentive payments to eligible professionals (EPs) and hospitals who adopt, implement, upgrade, or demonstrate meaningful use of certified electronic health record (EHR) technology. With federal incentives in place, many practices rush into implementing EHRs. It is especially crucial for practices to slow their pace and be more strategic. They must plan and be more strategic in their implementation of EHRs. Practices can't afford to have sustained productivity loss, nor can they afford to make implementation mistakes that result in abandoning an EMR system.



Practices can achieve implementation success by avoiding making costly mistakes and by following a few fundamental rules:

- Not taking the leadership role or delegating leadership to the wrong person can have disastrous results. A staff member doesn't necessarily possess the perspective of a practice owner or clinician.
- Practices that neglect the plethora of opportunities for performance improvement are also bound to fail. It is crucial to plan and seize the myriad of opportunities that are available for performance improvement, such as Revenue Cycle Management, patient portal and e-prescribing capabilities.
- Neglecting to embrace all facets of training is detrimental to implementation. Allocating funds as well as time for setup and training is paramount to success.
- Failure to engage in a practice analysis is also a recipe for implementation disaster. By undertaking a rigorous practice analysis, goals can inform what tasks need to be addressed and what priorities need to be set. You must develop a project plan and follow that plan to fruition.
- Selecting poorly designed software is another major reason that practices fail. Not understanding the process implicit in the design will lead to a less than perfect outcome.



- Many practices fail with implementation because they focus on features rather than practice goals and processes. For example, practices that focus on their goal of streamlining the entire workflow in order to achieve the highest efficiencies have a greater chance for success.
- Choosing "Best of Breed," commonly referred to as using a specific software program or package for each specific application or requirement, versus opting for a comprehensive end-to-end, integrated EMR system is another major impediment to success. Best of Breed is cumbersome, costly and inconvenient. An integrated solution provides the best chance for a practice to achieve efficiencies in workflow while enhancing patient care.
- Many practices implement EMRs for all of the wrong reasons. With their eye on EMR government financial incentives, practices frequently rush to select and adapt EMRs without fully understanding the system and how to implement it for greater efficiencies and practice management enhancements.
- An overwhelming number of practice implementation failures can be attributed to choosing the wrong technology and/or wrong software company. An unproductive relationship with vendors can be equally disastrous. Practices that do their homework before selecting an EMR have a much greater chance for success.
- Finally, the lack of fortitude to persevere through the inevitable difficult transition period is a major obstacle to success. Keeping information flowing and celebrating milestones are just a few of the beneficial ways to reduce the stress and help maintain the momentum toward achieving your long-term objectives.



INTRODUCTION

While EMR government financial incentives are increasingly motivating physician practices to adopt electronic health records systems, it is imperative to carefully assess the effort needed to achieve compliance for these stimulus payments. A rush to implement often leads to making rapid vendor choices, failure to get your staff on board and doing a poor job of achieving a successful implementation. This White Paper is intended to prevent you from making the 10 most common EMR implementation mistakes. With an accurate view of your level of preparedness, your practice can design an implementation plan that meets the specific needs of your practice. By doing a careful job of achieving process change for all the right reasons, you can achieve successful implementation.



John Maxwell once said, "The pessimist complains about the wind. The optimist expects it to change. The leader adjusts the sail." As medical practices increasingly adopt EMRs, many physicians mistakenly devote an inordinate amount of time to evaluating and selecting the software, with the mindset that successful implementation will automatically ensue. They forego taking the helm to pilot their practice safely through the choppy waters that are inherent in the three stages of the EMR implementation lifecycle.

Enamored of their software system choice when they sign on the dotted line for their new system, most physicians aren't properly prepared for the implementation process ahead, nor are they equipped to deal with the initial fear and dissatisfaction among staff members that is inarguably part of the cycle. There are many pitfalls, and even one mistake can throw successful implementation off course.

You can safely steer your staff through the choppy waters to their destination. How you pilot your staff is the key that will ultimately make them forget that there were some obstacles along the way. This White Paper will help you to avoid making the ten most common implementation mistakes that thwart success. The result: Your staff will come to a place where they simply can't imagine life without an EMR.



As the leader, it is imperative to be cognizant of the common mistakes and to learn how to avoid them in order to prevent an implementation debacle. If you provide a high level of participation and leadership, your staff is less likely to view the implementation as just a passing trend of the moment. They will be also be less likely to resent the changes ahead as well as the increased workload that may initially exist.

GOOD NEWS, BAD NEWS

When it comes to EMR adoption rates, there's good news. On May 22, 2013, Health and Human Services, (HHS) announced that it had met and exceeded its goal for 50% of doctor offices and 80% of eligible hospitals to have EHRs by the end of 2013. Despite these optimistic statistics, the current failure rates of EMR implementations are consistently high, at over 50%. These dismal numbers underscore the importance of learning how to avoid each and every mistake that cause practices to fail at implementation.²



NOT TAKING THE WHEEL OR PUTTING SOMEONE ELSE IN THE DRIVER'S SEAT

John F. Kennedy once said, "Things do not happen. Things are made to happen." Lack of leadership is one of the most costly mistakes that can derail an implementation. Delegating leadership or divided leadership is equally detrimental. "The leader needs to set the vision for the implementation, truly understand how EHRs will help the organization achieve clinical transformation to greatly improve quality, safety and the patient experience," said Fred Bazzoli, Senior Director of Communications for the College of Healthcare Information Management Executives (CHIME) and author of "The CIO's Guide to Implementing EHRs in the HITECH Fra."

It is crucial to understand that implementation is a time intensive pursuit. Yet, because they have an eye fixed on the bottom line and want to

[.] Health information technology adoption in Massachusetts: costs and timeframe. Centre for Health Policy and Research [Online] [Accessed Mar 13, 2006].



^{1]} http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1839412/

^{2]} http://searchhealthit.techtarget.com/healthitexchange/meaningfulhealthcareinformaticsblog/cms-releases-some-statistics-on-ehr-adoptions-for-up-to-april-2013/

implement the EMR as expediently as possible, many physicians assign the decisions for implementation to a staff member who does not necessarily have the perspective of a practice owner or a clinician. Understanding the practice's goals, direction and strategy is paramount to a successful implementation.



When Dorsel Spears, owner and practice manager of Wellness Medical Center in Fredericksburg, Virginia, took the reins to find a new EMR to replace a system that was dragging down the practice's efficiency, she had a clear set of practice goals on her shopping list. One of the goals was to enable the practice staff to check patients in while trying to complete other tasks efficiently. Spears explains that with the new EMR, "The schedule is always up front and you are able to check people in and out without having to go away (from the screen). That's a big difference from our previous EMR. If you check somebody in and if you have to go look at a patient's account in our current EMR, you still have your schedule there, so if you are at your front desk, you can check someone in quickly and not lose everything. It flows better than our previous EMR. The previous company didn't believe in work lists," said Spears.

Spears' goals also included finding an EMR which could help the practice to bill more efficiently and accurately. "When I submit this claim I don't want to have to go all the way back around to the billing, and click to get to the next claim. With our current EMR, I submit the claim, I go to submit another claim and I'm back at my work list. And that is definitely a time saver. Anytime we've made a change, the staff said, 'I can't believe you are doing this to me.' When we switched to our current EMR, they said, 'Now we can get some work done.'"



The office manager, biller, nurse manager, and trusted relatives employed by the practice may be expert at performing their particular functions. However, they may be completely unfamiliar with the implementation process. You cannot take any shortcuts by delegating the leadership role and expect a favorable outcome. Although it's wise to delegate

implementation tasks, don't succumb to delegating leadership to the wrong person. In a study, entitled, "Adoption of Electronic Medical Records in Family Practice: The Providers' Perspective," Amanda L. Terry, PhD, studied six primary care providers in Canada and found that the leadership role is indeed paramount for success.



Remembering the maxim, 'culture eats strategy for lunch,' the primary objective of the CEO and other senior leadership is to set the cultural tone, they must live the vision and position themselves as the executive sponsors."

- Bill Spooner, CIO at Share Healthcare The final sample was comprised of 30 participants from six practice sites (three urban, two rural, and one small-town practice). Participants included 13 family physicians, 11 other health professionals (including nurses, Medical Assistants) and six administrative staff (receptionists, secretaries). Terry said, "In-house problem-solvers emerged during the EMR implementation and adoption process; these individuals played an important role in addressing day-to-day issues related to the EMR. Their function appeared to be more hands-on, in contrast to physician "champions," who assume more of a leadership role in EMR implementation. Both roles are seen as important and need to be encouraged. Both the in-house problem-solver and the champion may serve a key role in helping novice users move forward to achieve this stage of EMR adoption.

LEADERSHIP RULES:

- Make implementation your number one priority. Although you may be tempted to conduct business as usual and continue with your normal patient load, it is necessary to devote a substantial amount of time for analysis, system set-up and configurations, status meetings, user training and management of that training. Lead the change. Set practice strategy and direction, communicate goals and priorities, assign tasks and ensure adequate completion of those tasks to achieve the desired ends.
- Communicate early and frequently in order to set the tone for the importance of the project to the practice staff.



- Lay out the projected steps for the project and the overall vision. Set the strategic vision, setting forth all of your expectations so that your practice understands where the practice is headed in terms of increasing efficiency and quality. If your staff knows what to anticipate, you will have a more successful implementation.".
- Don't Delegate Leadership. If you delegate leadership to staff members who are accustomed to using a previous EMR system, there is a tendency that they will focus on what the practice has been doing all along, instead of concentrating on the myriad benefits they can reap in the future with the new EMR. They may not embrace the big picture because they are connected to the older workflow and feel comfortable having already mastered the older systems' functions. Most people do not embrace change. Their scope of vision and expectations may be limited to their function and the features of the system, instead of the workflow.

Along the way, there are going to be groups that need to be persuaded, coaxed, cajoled or just plain told to get on the bus or get off. That must be supported all the way to the top. To do that, they (leader) must have and fully share the vision...If the CEO does not get it, and support it, things may end up in jeopardy."

- Stephen Stewart - CIO, Henry County Health Centers

Homer L. Chin, M.D., MS, is the Assistant Regional Medical Director for Clinical Information Systems for the Kaiser Permanente Northwest Region and Assistant Professor in Medical Informatics and Clinical Epidemiology at the Oregon Health and Sciences University. Kaiser Permanente Northwest (KPNW) has more than a decade of experience working with EMR implementations. Dr. Chin explains why it is so dangerous to base the implementation on the way things have been conducted in the past.

"The EMR is the 'great magnifier.' If an organization already does something very well, then the implementation of information technology will probably further improve its performance in that area. However, if an organization is dysfunctional in an area, then the implementation of an EMR will probably



magnify that dysfunction. Identifying and addressing potential areas of organizational dysfunction prior to implementing the EMR may improve the overall results of EMR implementation,"said Dr. Chin.

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MISSING THE PERFORMANCE IMPROVEMENT BOAT

Practices that miss taking advantage of the myriad of opportunities for performance improvement are doomed to failure. Plan and seize every opportunity for performance improvement. Dr. Chin's experience reveals the enormous opportunities for performance improvement that allows easy embedding of content in a myriad number of ways throughout the EMR.

"With an EMR, the opportunity exists to use an order requisition as a way to communicate not only from the clinician to the ancillary department but also as a way for the organization to communicate to the clinician at the time of ordering. By embedding guiding information in an order requisition, guidance can be provided to the clinician seamlessly during the ordering process," said Dr. Chin.

Another simple but effective way to embed useful content is to automatically print patient information related to an order on the after-visit summary that is given to the patient at the end of the visit, according to Dr. Chin.

Medical practices that have experienced successful EMR implementations report that they painstakingly placed opportunities for performance improvement on the practice's radar.



When William R. Blythe, M.D. of East Alabama Ear, Nose & Throat, P.C. took the leadership reins in the EMR search for his three physician practice he had several goals he wanted to meet for performance improvement over the practice's original software system.

Reflecting on the inadequacies of the practice's first EMR system, Dr. Blythe said, "Like most practices, we had a Unix-based system with a dedicated server and work stations. We basically used it for scheduling patients and Revenue Cycle Management. By 2001, we had outgrown our second UNIX system and were looking to replace it with new hardware and software. Our choice was whether to purchase a new system with the





"old" server and software setup, or to look for an Internet based Application Service Provider (ASP). ASPs, currently referred to as SaaS were just making significant headway into the practice management and medical software market, and I began looking into them earnestly. **An Internet based platform seemed to be the permanent solution that we had been looking for over the past seven years**."

Revenue Cycle Management is a sizeable opportunity for performance improvement, and Dr. Blythe knew that he wanted to seize this advantage with his new EMR. "I was very honest about Revenue Cycle Management. I talked to everybody about every aspect of claims entry and clearinghouse. We have a group that manages our practice. They oversee our financials and run a monthly report and tell us how we are doing. When we were looking at making this final change we really didn't have anywhere to go but down as far as money because we were so very efficient. Our accounts receivable was 28 days. We were collecting 98% of expected collections after contractual write offs. When we started talking to each individual EMR company, I said, 'The bar has been set high. We are going to change, but if our numbers go down and we become less efficient financially, we're going right back,'" said Dr. Blythe.

Emphasizing that he was attracted to the claim submission for HCFA 1500 (which is currently CMS 1500) data entry, Dr. Blythe said, "Many practice management software firms and companies build an interface so you enter data on their website, which populates that information to a HCFA 1500. Instead, the system we choose allows you to enter the information on the HCFA 1500. For years we filled out the HCFA 1500. Now we are more efficient. You can just pull up the form if you want to look at a claim or any submission. It's great that you no longer have to do this through a company's interface or via an individual's interpretation."

Before he leaves the operating room, the bill for Dr. Blythe's procedure is at the clearinghouse that is integrated with his EMR. "I do all of my own billing. When I do a surgery, for example, a tonsillectomy, before I ever leave the OR, I create a surgery note and enter the patient's charges into the system. My protocol is: I do the surgery, I dictate, I write orders, I enter the patient's data, I create a surgery note in my system and I talk to the family. I can do a lot of that all at one time and it takes me one minute. Before I leave the OR



the bill for the procedure is already at the clearinghouse. It's ready to go. It's fast. Before a patient reaches our front desk office, visit claims are already at the insurer. We got really efficient at that. Most patients' claims are in real time as opposed to the old days where we created a super bill and a front desk person would enter those claims and then we would review them at night, batch them and they'd go out the next day and surgery charges would go out a week later after we had a chance to code them. Now it's all instantaneous," said Dr. Blythe.



E-prescribing with a web-based platform is yet another great opportunity for performance improvement. Dr. Blythe states, "Connecting with patients via the patient portal is the future of healthcare. When patients come to the office, the front office staff makes sure they have the patients' proper email address. If patients went online prior to the appointment to update their medical information, they are seen immediately. We reward them. The reward is their time. If a patient calls in and says, 'I have a bad sinus infection,' and we're booked out weeks in advance, they can email me to tell me what's wrong and I'll double book and see them. People are grateful that a doctor emails them personally. We try not to punish those who don't email because a lot of underprivileged people in Alabama don't have a computer. We're trying to build the future. I explain that the other patient gave information online. It just requires a lot of work for us to enter the information. We don't mind doing it, but you have to wait if we enter the information for you."

Moosa Jaffari, M.D., owner of his eponymous Lakewood, NJ-based ENT practice has experienced firsthand the frustration of a failed EMR implementation. "It became clear that the EMR was very cumbersome and it was affecting our productivity. We really didn't use it for too long. While in the implementation stage, we found that it is not suitable for my type of practice."

With his second EMR, Dr. Jaffari took advantage of numerous opportunities for performance improvement. One of these opportunities was using the EMR's patient portal to provide educational material for the common problems he sees in his practice, such as sinus problems, dizziness and hearing loss. "We can put all of this patient information on the portal



and they can access it and they will be more educated about their condition and be more satisfied with their care," said Dr. Jaffari.



NEGLECTING ALL FACETS OF TRAINING

Many physicians neglect to commit the necessary time for setup and training. Lack of training is detrimental to implementation. You must recognize that change is stressful and there may be resentment to change because of a lack of knowledge about the system and the changes it will inevitably bring to everyone. In "Adoption of Electronic Medical Records in Family Practice: The Providers' Perspective" Amanda Terry, PhD discovered that reluctance and resistance to change affects the transition process. In the study, Terry singles out one participant who says, "Initially, a couple of the doctors were eager to try new things out, but the rest of us were a little reluctant initially. I don't even know if reluctant is it but maybe just a little bit intimidated thinking how are we going to integrate this into our lives."



TRAINING TIPS:

- Proper training of physicians and staff is essential for using software systems correctly. It also can help explore reasons for currently inefficient processes, reveal what is possible and expose weaknesses in employee training, skill sets or experience that need to be addressed.
- Don't assume that because you know your practice, the new EMR software is obvious to your staff. What may appear obvious to the physician or owner of the practice, isn't always clear to the staff. In the "Adoption of EMRs in Family Practice" study, participants described the overall response of their practice site to the EMR. The author reports, "Initially, most practices had a negative reaction to the introduction of the EMR. Feelings of frustration were described by many participants due to little knowledge of the EMR program combined with issues related to the hardware setup. One participant described the reaction to the EMR as... 'kind of frustrating at first to get everything sorted out.' The software is a tool and there is an implicit process coupled to that tool that will lead to workflow efficiencies if it is used correctly. The experience of Grace Vanderkuyl, Office Manager of an internal medicine practice, Unique Healthcare of Orlando, underscores the importance of being mindful of the entire practice's workflow efficiencies. "Every time"



we had an EMR representative come by, or we went online, we would do test runs and try the systems out. We wanted a system that was user-friendly for all of us. This was very important because there are different users, and we are also a teaching facility with interns. We wanted the system to be compatible so that we could use it for different things," says Vanderkuyl.

• Training takes time and it may be expensive, so there may be a temptation to learn to use it on your own. Frequently, lack of training turns out to be costlier to the practice, due to costs associated with lost opportunities for efficiency. You lose the time that you could have been operating at a higher level. Inefficiency is very costly because your office and staff are not operating at peak efficiency.

A crucial investment that practices frequently pass over or opt out of is the training of first time EMR system users or new systems. When a practice starts to utilize an EMR system there is an abundance of anxiety and fear. The job that physician and office staffers were doing instinctively for years is transformed into what at first seems like daunting and tedious tasks. What once was routinely accomplished on paper without much thought to technological aspects, can now only be accessed with clicks and typing on a computer and learning what resembles a foreign code.



New users, many of whom lack high tech computer skills, have the added burden of learning to use a new system while simultaneously dealing with a heavy patient load in a very fast paced and high pressured work environment.

Allocate Funds For Training. Dr. Maki Rheaume, owner of Kuraoka
 Clinic, which operates in Atlanta, GA and Columbus, OH couldn't
 agree more about the benefits of allocating funds for training. In
 addition to watching online webinars, Dr. Rheaume purchased a training
 package from her EMR company. "I set up the time and went through



Dr. Melissa Minoff, owner of Northwest Naturopathy and Acupuncture in Seattle, WA, accrued many benefits from utilizing a variety of training offerings at the onset of implementation as well as after implementation.

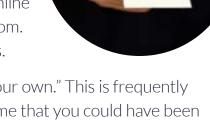
I watched a lot of training videos. The EMR software company I use recently updated their videos, which is great. I paid for a certain number of hours for training and that was really helpful because I was able to ask questions specifically for how to set up my practice. I plan to meet with my EMR's clinical expert and go through that visit flow again and see what has changed over the last three and half years," says Dr. Minoff.

everything with the software company's team. It was well worth the money. Everyone should do training, especially if they never used an EMR. Even if the one-on-one training is optional, physicians should do it, otherwise you end up spending more time(learning the system). A doctor can generate more business. I think you should spend more on training and conserve your time (for patients)," advises Dr. Rheaume.

Training prior to using a new EMR and support during the first few days and weeks are paramount for success. There are many useful training approaches. It is important to provide hands on support.

Barbara Buckley, NP at Comprehensive Women's Healthcare, an OB/GYN practice in Grapevine, Texas says that when it came to implementing their EMR they did not encounter any barriers training its staff and patients because they provided continued support. "We made a lot of handouts for patients. We did a screen shot of what it would look

like once they logged in. We showed them where to put their user name and password and showed them what the screen would look like when they are logged in. We showed them, 'Here's where your test results will be.' I also made business cards with instructions on the ins and outs of how to navigate the online system and I displayed charts in every room. Patients are very visual," Buckley explains.



- Don't follow your impulse to "learn it on our own." This is frequently costlier to a practice since you lose the time that you could have been operating at a higher level.
- Don't forego one-on-one training. Being trained by clinical and billing experts is an excellent investment in your practice's EMR adoption success and long term use.
- Take advantage of a wide range of training methods. Well-designed, computer training modules and webinars that can be accessed by the entire staff at anytime ensures that even the busiest employee or



physicians can receive instruction when they desire. They can reference these modules as questions and issues arise.

- Provide Ongoing Training. Remember that many employees may only remember a small amount of what they learn in training that is conducted prior to going live. Training and support on the go-live date are essential and they should also be available and continued for the first few weeks. As the staff becomes more knowledgeable, they can be trained further to learn how to use all of the system's capabilities and features to enhance workflows and processes along the way.
- Help users feel comfortable with the system to help alleviate the stress that they feel while still performing the duties that are expected of them.

Bazzoli says, "Training brings users comfort, enabling users to replace fear with facts. Training needs to be ongoing so that users don't just stop at knowing just enough about a new system to survive it—continuation of education helps users become more proficient and professional. Training should not just teach users how to push buttons on the new system, but should acclimate them to new workflows and the reasons why they are being implemented."



LACK OF A PRACTICE ANALYSIS AND NOT FOLLOWING THE PLAN

Engaging in a practice analysis is essential. It's imperative to know where you want to be and to outline your goals. Frequently, it is the practices' old processes that are carried out by poorly trained or inexperienced personnel that lead to the failure to achieve a practice goal. By going through a rigorous practice analysis, goals can inform what tasks need to be addressed and priorities can be set. When issues inevitably arise, there is a context for understanding whether it's a software problem or a problem with the practice personnel and processes.

In an article appearing in The Annals of Family Medicine, "Implementing an Electronic Medical Record in a Family Medicine Practice: Communication, Decision Making, and Conflict," researchers studied a private family medicine practice that had recently purchased and implemented an EMR. According to the researchers, members of the practice reported differing



perspectives regarding the value and appropriate use of the EMR. It is clear from the study's findings that a practice analysis outlining the practice's goals from the get-go is imperative so that everyone is on the same page.

The study's researchers explain, "The senior partner in the practice saw the EMR as a tool to increase efficiency in the clinical encounter by eliminating

According to a 2013 Black Book Rankings' annual poll of nearly 17,000 active EHR users, one in six medical practices could switch their first EHR by the end of the year. [prweb.com]

The majority of frustrated system users blame themselves for not properly assessing practice needs before selecting their first EHR vendor with the narrow goal of receiving government incentives. When queried to select the top three compelling reasons for your practice to be considering vendor switch from current EHR, 79% of responders said, "This Practice did not adequately assess our needs before selecting the original EHR."

a recurrent problem with lost charts while providing better management of complex patient data. For him, "the more information is in there, the more reliable it is ... and there are complex patients I have in here who have 12 medications and 12 diagnoses, and I come into the room and I am saving immeasurable time ... I am plotting out blood pressures to show patients, and weights and heights and things and ... that has been very well received I think, by the patients." The junior partner in the practice also saw the EMR as improving efficiency, but his focus was on how the system affected patient flow through the practice. As he put it, "We always wanted to ... help prevent some of the congestion ... signing in vs. checking out.... Well, we cannot expand the office ... [and] the only place that was deemed removable would be the charts.... The hope is ... that now we can collect co-pays when the patients are coming in, which was harder to do before, because the person who would be checking in, would also be getting checked out ... [and] having to answer the phones."

The study's researchers conclude, "Although both physician owners focused on efficiency, during the observation period, they did not discuss



with each other or with other practice members their competing goals of managing complex data efficiently during the clinical encounter and managing practice space more efficiently."

THE RIGHT WAY TO ENGAGE IN A PRACTICE ANALYSIS:

- According to the Office of the National Coordinator for Health Information Technology (ONC), building an EHR implementation plan becomes critical for identifying the right tasks to perform, the order of those tasks, and clear communication of tasks to the entire team involved with the change process.
- One effective first step in the planning process is for the team to segment tasks into three categories: What new work tasks/process are we going to start doing? What work tasks/process are we going to sustain?
- The start/stop/sustain exercise helps clarify what the new work environment will be like after the change and helps the team prioritize tasks in the overall EHR implementation plan, advises ONC.
- ONC also advises practices to do the following during the EHR implementation planning phase:
- Analyze and map out the practice's current workflow and processes of how the practice currently gets work done (the current state).
- Map out how EHRs will enable desired workflows and processes, creating new workflow patterns to improve inefficiency or duplicative processes (the future state).
- Create a contingency plan or back-up plan to combat issues that may arise throughout the implementation process.
- Create a project plan for transitioning from paper to EHRs, and appoint someone to manage the project plan.
- Establish a chart abstraction plan, a means to convert or transform information from paper charts to electronic charts. Identify specific data elements that will need to be entered into the new EHR and if there are items that will be scanned.



- Understand what data elements may be migrated from your old system
 to your new one, such as patient demographics or provider schedule
 information. Sometimes, being selective with which data or how much
 data you want to migrate can influence the ease of transition.
- Identify concerns and obstacles regarding privacy and security and create a plan to address them. It is essential to emphasize the importance of privacy and security when transitioning to EHRs.

NOT FOLLOWING THE PLAN

In addition to the mistake of lacking to engage in a practice analysis, many implementations also fail because practices do not follow a plan.

In order to avoid an implementation debacle, you need to develop a project plan and follow that plan to fruition. If certain foundational tasks are not completed, it is difficult to achieve other dependent goals.

• Clearly articulate a set of goals and standard implementation tasks

This includes the identification of roles and responsibilities, the assignment of tasks to specific persons (vendor and practice), priorities associated with those tasks and due dates for completion. Once the project plan is set, regular meetings are required to ensure task completion and problem-solving of other issues. Dr. Joseph Cramer, a pediatrician in Utah wants practices to learn from his practice's mistakes. "Once

we signed, the EMR committee stopped meeting.

Instead that was the exact time everyone, the clerks, Medical Assistants, business office, and especially the docs should have starting meeting regularly. Because of this, we all have to learn, one mistake at a time all over again. The list of errors goes on. We bought something too big to fail without a trial period and escape clause. We hired internal IT personnel without the clinic management having the technical expertise to audit their work."



- If the vendor fails to provide project plan leadership organization and tools, then this is a warning red-flag. If the vendor or practices fail to adhere to a project plan, this is also a reason for implementation failure.
- One of Dr. Raymond DeMoville's goals for his practice, Mid State ENT was to find an EMR that had the tools to help him attest for Meaningful Use incentives. So, prior to selecting his current EMR, Dr. DeMoville considered an EMR that was being developed by a Memphis physician. "We were almost ready to buy his system, but it didn't meet the federal requirements yet for Meaningful Use. He said he'd have it by January, but he wasn't sure," says Dr. DeMoville. He adds that he chose a different system that "made it easy to meet the criteria for MU and it was set up to have the data available to push the buttons to pull up reports that I needed. It went very smoothly. We got our first check a month ago. That was a pleasant surprise." says Dr. DeMoville.

5 CHOOSING POORLY DESIGNED SOFTWARE

People, processes and tools are required to successfully carry out any business operation in order to achieve a goal. The employees must have the necessary training, experience, work ethic and background knowledge to learn the software. Poorly designed software or not understanding the process implicit in the design will lead to a less than perfect outcome.

Mid State ENT had been through the rigmarole of using several different systems over the past decade prior to finding a well designed system that meets all of its needs. "Ten years ago we started using a system that we got disenchanted with. We never really produced a note on it. Then we went to another system, which we used for three years. I stuck it out because I hate to waste money so I made myself do it. But I took twice as long with my notes because the voice recognition was so bad. It was an electronic note. It didn't have billing associated with it and it didn't code for you. The word recognition was very poor. You'd say Celebrex® and it would say, 'sell some brex.' It produced a fair note. It kept a database, but it was our own database; it was not web-based, so we had to have it up all the time to access it from one office to the next. It was an issue transferring between our two offices," says Dr. DeMoville.

In an article in the American Academy of Family Physicians, entitled,



"Implementing an EMR System: One Clinic's Experience," Paul D. Smith, M.D. sheds light on the importance of following a plan for a successful implementation. Six months prior to going live, the practice created a project team to manage and understand the implementation process. The team talked about the implementation process with the vendor's staff. The conversations gave the team an initial point for developing the implementation plan. Before going live, the project team met each week and communicated by email to develop and refine the implementation plan, to talk about issues and update progress.

The plan the team developed involved several simultaneous implementation tasks, including work-flow analysis and redesign, facility modification, hardware installation, software configuration, developing a backup system, entering old data, dealing with paper and training.



Another key to a successful EMR implementation is having a clear definition of what you want the EMR to accomplish and making decisions throughout the process that support that goal. For evidence, look no further than Belleville Family Medical Clinic. With the goal of becoming paperless, the practice handled the following implementation tasks:

Work-flow analysis and redesign. One of the practice's most important jobs was to analyze every function of every job to understand how tasks were accomplished with the old system. The project team spent considerable time analyzing existing work processes, looking for opportunities for improved efficiency, designing new workflows that could be accomplished with the tools available in the EMR and developing a transition plan. At monthly meetings during the implementation process, office and medical staff discussed and made plans for necessary changes in workflow that would make the best use of the EMR system. For example, the decision was made to replace paper phone messages with electronic ones, and resident supervision documentation (a task formerly done on paper) was incorporated into the electronic progress note.

By the time the practice went live, the staff members who had to change how they did their jobs were prepared to do so and had previously given input as to how to solve problems that came up. The implementation experience offers a window on the importance of understanding the process.



In an article entitled, "Principles for a Successful Computerized Physician Order Entry Implementation," researchers point out the importance of help

"at the elbow" at the time of implementation. "In addition to the symbolic importance of supporting the users by being present while they are first using the application, intensive support at "go-live" allows the implementation team to directly experience what is and is not working



well. Most successful implementations have had more post go-live support than pre-go-live training. Most sites have had 24/7 support for several weeks." state the researchers.



MISPLACED FOCUS ON FEATURES RATHER THAN PRACTICE GOALS

Many practices fail with implementation because they have a laser like focus on features instead of a focus on practice goals and processes.

In, "Factors and Forces Affecting EHR System Adoption: Report of a 2004 ACMI Discussion," Joan S. Ash, PhD and colleagues state, "There needs to be communication that helps the users understand that while it may take longer to enter an individual order, there will be impressive payoffs downstream. It also needs to impart an understanding that the system is not just replacing a paper system; there will be a fundamental change in workflow that will help users do their work better. It also needs to be honestly admitted that there may be difficulties for a while, but that places that have implemented such systems in the past claim they would never go back to paper."

In a Medical Economics article, entitled, "How to Choose The 'Right' Electronic Medical Record System," Joseph G. Cramer, M.D., a Utah pediatrician reveals, "We failed to focus on the most important part of the decision – the human/computer interface. We talked about how the practice management system handled claims, the viability of the vendor, and reliance on national standards and certification. Our IT guy told us he liked the computer language. But we didn't listen to our guts on the design



of the computer screen that we would have to look at for hours on end. It is about functionality and workflow. It is all about design, which we see every day, but mostly ignore. Mention design and people think fashion shows. But EMR design is more critical than skirt lengths and fabric. Design of the computer screen and the underlying program is how our brains see the whole picture of the patient."

Emphasizing, that human/computer interface is the key to success in adopting an EHR, Dr. Cramer acknowledges, "People talk about the learning curve. The reason for the steep slope of our curve is poor design. If the design were correct, then the clicks and their results would be intuitive. One does not need an instruction manual to open a door. Proper design leads to doing the right thing. Poor design makes it easy to do the wrong thing--the door doesn't open, or it slams shut on your fingers."

The case of Comprehensive Women's Healthcare in Texas, an OB/GYN also opens a window on the importance of focusing on goals. The practice, which is staffed by two physicians and a nurse practitioner, serves about 100 patients a day. In choosing their first EMR, the practice had a sharp





focus on their goal of streamlining the entire workflow in order to achieve the highest efficiencies. Barbara Buckley, NP says, "Our software company has an online patient portal and that impressed us because our patients can go online and accomplish a lot of things. The patient portal saves patients time and increases the efficiency of Comprehensive Women's Healthcare. We have put all of our forms online so that all of our patients can fill out their paperwork before they come in. The patient portal also allows patients to request appointments. In this day and age of email it is a way to let patients keep in touch with us. It is also HIPAA compliant. If it is midnight and patients want to request an appointment they can message us and we can set up an appointment when we open the office. Patients can go to Walgreens at 7 p.m. If they find out that they need a refill, the pharmacy can send an electronic message authorization."

Comprehensive Women's Healthcare is also answering requests from patients with the software's General Messaging capability. "If our office is closed and patients are at home and they have a billing or medical question, they can still pose the question. Because we use EMR Messaging, patients can make a query about an appointment, their condition, a refill or a bill. The question is waiting and we answer it soon as we see it," says Buckley.

In addition, the EMR patient portal also enables patients to input their medical history, surgical history, family history, medications, allergies and social history prior to their first visit. "It's a huge time saver in healthcare. You get up to the minute, accurate information," claims Buckley.

Since patients don't want to spend a lot of time in the waiting room, the patient portal enhances the quality of the time that patients spend with physicians. "When our patients are in the office they can spend time talking about their health and not filling out paperwork."

Dr. Chin further explains that the process is always in motion. "Many system implementers believe that once a system is implemented, their work is done. But the truth of the matter is that these systems are constantly changing. Application software, operating systems, hardware, technology, and medical knowledge about diagnosis and treatment are constantly changing. The myriad combinations and interactions of all these changes will keep a project team "implementing" at all times.





MISTAKENLY CHOOSING BEST OF BREED OVER AN INTEGRATED SYSTEM

You may have heard the term "Best of Breed." The term commonly refers to using a specific software program or package for each specific application or requirement. Best of Breed is a likely recipe for failure. It is cumbersome, inconvenient and costly. An integrated solution is mandatory in order to manage the complexity of the modern healthcare enterprise and it is also advantageous for solo practitioners.

The case of Coastal Ear, Nose, and Throat, LLC in Georgia underscores the myriad benefits of having a completely integrated EMR system versus Best of Breed. Dr. David Oliver understands fully the negative consequences of not having an integrated system with his first EMR. Dr. Oliver practiced with six physicians in a Savannah, GA-based ENT practice for 15 years. A few years ago, he was going bankrupt. The main culprit: the practice had transitioned from paper charts to an inefficient EMR software system that turned out to be a money pit. There were also some bad business decisions that had been made.



"Our EMR killed our productivity, it was crushingly expensive and it absolutely ruined our practice. I was going bankrupt. There were big licensing fees upfront, a big purchase price, and big monthly licensing fees. You have to have your own servers and you have to pour money into your infrastructure. The problem with those EMR systems is that they are not designed for Otolaryngology—that is, for specialists. I can order a pap smear more easily than I can order CPAPs. They didn't give me any support for integrating your EMR," states Dr. Oliver.

Intent on putting his dire financial and business problems with the multi provider otolaryngology practice behind him, Dr. Oliver decided to open Coastal ENT, a solo ENT practice. Dr. Oliver points out that his wife is a certified procedural coder and that she has a degree in healthcare management. She had already done a lot of work and she talked to me a lot about the problems with our EMR system. It really caused a lot of conflict in our practice because I was telling these doctors, Why did you get this EMR system? It doesn't do this, it doesn't do that. The doctors were feeling some pressure from me that the system was not performing.



Dr. Oliver goes on to explain that because the new system he selected is integrated with the clearinghouses there's a plethora of benefits in the system when it comes to the business aspect of the practice. "The new EMR prevents your practice from going bankrupt. It helps me bill. If you don't have a good EMR you may have a system that doesn't tell you when there are changes in your payment schedule from the insurance companies. All of a sudden, insurance companies will decide they are not going to pay you for 'xyz' and they drop your reimbursement 10% on some of the things that you do regularly. You are guarded against those kinds of things by having an EMR system that is integrated and that keeps you up with all the facets of the financial side of your practice."

An Integrated EMR solution is indeed paramount for success in order to manage the complexity of the modern healthcare arena, agrees Nurse Practitioner Karen Lee. She was an early adopter of EMR software for her women's health practice, which she founded in 1975. She was also a pioneer when it came to utilizing billing software in 2003. But as time went on she realized she had to carve new territory. The reason: the two systems were inefficient because they were separate. In 2010, Lee began searching for an integrated web based Electronic Medical Record and practice management software solution for Woman to Woman.

Lee serves 10 to 12 patients a day and provides lengthy visits. "I had a server-based system that didn't have billing associated with it. I had to have a separate billing software. The government was telling providers that we would have to have an Electronic Medical Record. I realized the wave of the future is web based and not server-based. So, I started looking for a new Obstetrics and Gynecology EMR system that included billing."

Frank's Wellness Clinic, which has offices in Tampa and Seminole, Florida, realized that "Best of Breed" wasn't working in the practice's interest. The practice initially had two separate managers as well as two separate software systems. David Frank, Office Manager said, "We used a practice management software for scheduling appointments and for billing at one location and another system for scheduling and billing at the other practice. I merged the two practices and I set the same standards for both locations with the idea of growing the practice and adding more providers."

Frank's Wellness Clinic experienced its fair share of financial woes due



to lack of integration. The practice finally choose one end-to-end EMR and practice management system that boasted robust billing capabilities. Although the practice initially planned to do billing in-house, they thought it was prudent to outsource billing to their new EMR company. "They are already providing EMR and their Team already understands how to maneuver through the EMR program. Who else would be best to get this done? We are able to utilize the EMR system more efficiently by posting payments and sending claims to the insurance companies on an immediate basis versus delaying it a week or more. Our software company has the ability to negotiate with the insurance companies for payments that haven't been received or payments that have not been fully paid. That's always a plus. We started using the new system on May 1, 2012, and our revenue picked up at least 40% almost immediately. There were a lot of things that weren't previously being billed out. They were still sitting in queue," reports Frank.

Dr. Syed Rizvi adds that with his integrated EMR system, "We can do everything in one place. We don't have to do multiple tasks in multiple systems."

According to "Principles for a Successful Computerized Physician Order Entry" study, from a technology viewpoint, integration of different systems was desired by users for ease of use and times savings. Joan Ash and her colleague researchers found that users "wanted seamless access to different systems through CPOE and they especially wanted both inpatient and outpatient orders written this way. They wanted CPOE to be integrated into their workflow so that it did not disrupt their work. Organizational and human integration, such as working on multidisciplinary teams, was strong as well."

An additional benefit of integration in Bazzoli's words: "Achieving Meaningful Use will also cause providers to place a premium on integration, because current and future objectives will require a high degree of workflow and data integration, application interoperability, and data sharing amongst EHRs. Providers will demand compliance with all relevant HIE standards required by various standards and integration bodies."



ADAPTING AN EMR FOR ALL THE WRONG REASONS

The HITECH Act requires healthcare organizations to use "certified" EHR in order to qualify for stimulus fund payments. In addition to providing



these assurances of certified products to the government, certification is also expected to assure providers that the products they are installing are capable of helping them achieve MU objectives.

Many practices implement an EMR solely because they want to obtain Meaningful Use incentive money or are seeking to avoid penalties that will eventually be enforced for not having implemented an EMR.

Bazzoli warns that if they are adapting an EMR to get MU, physicians must be careful. Healthcare organizations that want to ramp up their use of EHRs to achieve stimulus payments must carefully assess those potential payments and compare them to anticipated costs of the technology, services, time and effort needed to achieve compliance."

In attempting to implement systems that achieve MU objectives, the largest risk for organizations, according to Bazzoli, is that they will rush to implement systems. He cautions, "This may lead to making hasty vendor choices, failing to get clinician buy-in and doing a careless job of achieving process change."

In his article outlining his practice's debacle with an EMR, Utah-based pediatrician Dr. Joseph Cramer warns that not knowing the reasons for implementation are equally detrimental. "Our failure as doctors was that we didn't know what we wanted to do with the EMR. In retrospect, we were swept up in all the glory talk of digital healthcare before we really decided what was important."

Cramer adds, "Our clinic is stuck. We are slowly moving toward universal adoption, but at a price much greater than any check we have written. You don't have to repeat our mistakes. The national ARRA stimulus package has dollars to motivate more clinicians to purchase EMRs. Do it. Get an EMR, but please, please, please get the right one."



WRONG TECHNOLOGY, WRONG SOFTWARE COMPANY, UNPRODUCTIVE INTERACTION WITH VENDORS

There are countless stories of practice implementation failures due to being romanced by the wrong EMR company and being wed to the wrong software. Unproductive interaction with vendors is also a red flag for disaster.



Dr. Ash and colleagues offer excellent advice from a "Consensus Statement on Considerations for a Successful CPOE Implementation," which advises that before embarking on the serious undertaking of CPOE, the following conditions should be met: The stability and product quality of the vendor are at least good, if not excellent and that there is deep understanding that CPOE projects are a vendor "marriage," not a purchase."

The experience of Denton Combs, CNP, owner of a solo ENT and allergy practice in Sioux Falls, SD provides evidence that choosing the wrong EMR company can have disastrous results on a practice's efficiency. Having initially used a free EMR for the first seven months, Combs reports, "We were having major trouble with billing and getting everything through. I hated that the business side and patient control side were not on the same side as the EMR. All of your billing was separate. Nothing was tied together. You were waiting to make an error and then you had to redo that error."



Prior to finding his current EMR, Jeffrey Kunkes, M.D. of Kunkes Ear, Nose and Throat in Georgia was using separate modules from separate companies. "Before we were using a different module and we had to hire a billing company. We were spending \$4,000 a month between billing, collections and medical records. We switched to an EHR where we paid a flat monthly fee. The former company said we were going to lose collections. We've maintained our collection rate, or

increased it. We've saved \$2,000 to \$3,000 a month. Because everything is under one company we have saved the hidden costs of billing and collecting, going from one screen to another and printing things. We've been able to cut our printing and copying costs significantly. Because we are doing everything under one roof with different modules from one company we are pleased. We have saved a significant amount of money on billing and collection without missing a step," states Dr. Kunkes.



KEYS TO SELECTING THE RIGHT TECHNOLOGY AND SOFTWARE COMPANY

- Know the strengths and weaknesses of the platforms that are available. Know the difference between server-based and web-based systems.
- If you want to avail yourself of a robust platform, web-based EMRs offer vast opportunities for instant access and convenience anytime and from anywhere there is an Internet connection. Physicians who travel to more than one practice location and those who need to access patient records while at the hospital, at home or on vacation can get quick access to patients' records from a web-based EMR.
- Web-based systems are much more affordable than server-based systems. Web-based EMRs do not require the purchase of expensive hardware or the hiring of expensive IT professionals. There are usually no fees for update.
- Ask about customer service and how problems and issues are handled before you sign on the dotted line. Know the way in which the company has chosen to do business. Ask colleagues for references. Conduct an Internet search on reputable EMR review sites and search for client testimonials. Many satisfied EMR customers aren't shy about informing their colleagues about the problems they encountered with their



previous EMR companies. If the company has garnered a reputation for telling customers "Don't come to us" when there is a problem, you have chosen the wrong firm. A company with a reputation for partnering with



physicians and providing excellent customer services, including rapid responses to any size queries or problems is a safe bet.

- Perform a thorough evaluation of the different vendors of EMR systems. Igor Huzicka, M.D. of Colorado-based First Internal Medicine wanted a fully integrated, web-based system with a speech recognition capability and an Internal Medicine patient portal. He turned to the Colorado Medical Society for advice and also found an instructional DVD about how to select an EMR software system. "I also went through an EMR Matrix site which allows you to input what you want from an electronic health records system and the EMR I chose emerged as one of the better systems," says Dr. Huzicka.
- Ask colleagues with similar size practices and specialties about their EMR system. Visit their practice to see how they are using their EMR.
- Visit the software company for a demo.
- Search for unbiased articles about different EMR companies.
- Contact The Office of the National Coordinator for Health Information Technology which has a published list of electronic health record vendors.
- Check reputable EMR Review Sites such as softwareadvice.com, as well as the American Academy of Family Physicians (AAFP) for vendor satisfaction rankings.

LACK OF PRODUCTIVE INTERACTION WITH VENDORS

Physician and health information technology vendor relationships are crucial for a successful implementation. Problems will inevitably crop up. How your software handles and resolves issues is the key to success.

Gail Wyatt, Office Manager of Trilogy Women's Health in Grapevine, TX explains the mutual benefits of having an excellent practice/software relationship. "We get great service. We keep in contact via phone and email. If they have a concern about a claim they send me an email and we address it. It's really a good team. I sleep better. Knowing the software company Team is there is such a relief. I couldn't do this on my own. Knowing people are there to answer our questions and take care of billing for us, is worth



every penny. Our relationship with our software company's representative is very, very good."

In contrast, in an article in Medical Economics, pediatrician Dr. Joseph Cramer reveals the havoc wreaked upon his Utah-based practice when the vendor relationship goes sour. "We were fooled by the sales job into the thinking we were the only clinic on earth for this company to support and that its personnel would do everything to make our transition as streamlined as possible. Now the story is just the opposite. We ask for changes and are ignored. The underlying corruption of design is undisturbed. The regular upgrades haven't appeared and promised connectivity is still not working. If we weren't lied to, we were, at the least, misled."

Physicians also need to be vigilant about finding out whether a software company's products are certified to meet each stage of MU objectives, as well as additional factors such as timing of HITECH-compliant software versions and infrastructure changes that will need more interdependency.

"More vigilance is urged on the part of physicians who are purchasing EMRs in order to achieve their goals. Bazzoli points out, "While providers need to buy certified systems to qualify for incentive funding, they will also need more open communication with vendors about what it really means to implement a HITECH-compliant solution. They will also need contractural assurances that products will integrate with necessary systems and data exchanges, and that vendors will maintain applications to future MU objectives which will likely be more challenging in

future stages of the program."

10 NOT PERSEVERING THROUGH THE STORM

Finally, implementation is undoubtedly a difficult and stressful period. Your staff is likely to feel overburdened as they try to adapt to a new system while simultaneously performing their usual tasks and attending to patients. They may get discouraged and lack the drive to persevere. There are many steps you can take to prevent



your staff from getting discouraged and throwing in the towel prematurely. In a consensus statement on considerations for a successful CPOE implementation, the panel states, "Early milestones must be selected to produce "wins" that help maintain momentum toward more difficult long-term objectives."

TIPS TO HELP YOUR STAFF PERSEVERE:

- Provide a constant source of information.
- Use a plethora of informational formats, such as email, Intranet, and one-on-one meetings.
- Create a variety of visual cues that reflect the positives and the progress that has already been made. Highlight and celebrate milestones that are reached.
- Place posters and other signs reflecting progress that has been made.
 Thermometers, maps, or a character representation of someone who is growing from infancy to adulthood are all effective cues.
- Inform staff about any changes in the system, new capabilities and training opportunities.

Finally, for a truly successful EMR implementation to take place, physicians are wise to heed Joan Ash and her colleagues' words of advice, "The challenge is to anticipate difficulties, to implement smoothly, and to control the organizational upheaval as the organization transforms itself. Successful implementation is possible, but only if the complexity is recognized and skillfully managed."

