Scanning Medical Records to an EMR (Electronic Medical Record)

American College of Medical Practice Executives
Case Study

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Statement of the problem

The future state of healthcare is moving toward EMR (Electronic Medical Record) or EHR (Electronic Healthcare Record) software programs and away from the current practice of paper chart medical records. An important component to this transition is the receipt and incorporation of medical records into the electronic patient record referred to as scanning. This case study seeks to explore the state of a large healthcare system in Florida who chose to adopt an EMR system and to evaluate today’s state of scanning medical records into an EMR and the efforts to develop a better workflow that allows for relevant documents to be scanned into the EMR in a timely and accurate manner, differentiating between current and historical records.

EMR or EHR systems have the potential to provide substantial benefits to providers, clinic practices and health care organizations. These systems can facilitate workflow and improve the quality of patient care and patient safety.

EPIC was the software program determined to be the suitable EMR for this large organization for the following reasons: EPIC, founded in 1979, is private and employee owned. It is known for being fast and physician friendly. Integrated access and revenue systems simplify the administration. The “one patient, one record” approach improves care in the physician group, hospital or both. EPIC makes software for mid-size and large medical groups, hospitals and integrated healthcare organizations. The software extends across clinical and revenue functions and provides access from home. It is quick to implement, easy to use and can operate with other EMR software programs. Information is shared securely in 2 ways: the provider controls the flow of data across organizations, or the patients control their own health information.
The Director of Clinical Informatics and Education, as part of this healthcare organization’s 225 provider multi-specialty group practice, identified challenges with scanning medical records to the patient record. Paper records were obtained from many different sources: faxed or mailed from outside facilities or independent physician group practices, hand delivered by patients, or electronically transferred.

A customer service representative (CSR), not a clinical staff person, usually requested the medical records; therefore all records were being requested on the patient for simplicity and lack of clinical expertise on the front end. Once the records were obtained, there were usually years of patient records to sort through and determine what was necessary for the practice or provider. Once it was decided, generally by the provider, what records were to be kept and scanned into the patient record, the rest of the patient record was stored somewhere in the clinic because the staff was apprehensive to shred and destroy them. The old way of thinking was never get rid of patient records. This process could sometimes take days or weeks, depending on the availability of the provider.

Another problem was each department within the practice group had their own workflow process that was inconsistent, not standardized and some providers could not prioritize which records were of most value to the practice or specialty and therefore all records received were being scanned into the electronic chart. The volume of patient records being obtained was overwhelming. With such high volumes, the error rate was extremely high and in some departments there was not enough equipment or staff to support and sustain the volumes.

The next step was for the clinical staff to abstract the paper records and assign them an order number. Then, the CSR staff would be responsible for scanning the record to that number. Quite often there was an issue of getting the records scanned into the patient chart in a timely matter. If the practice was short staffed, or the volume was too big, it could take days to get these records scanned in. This resulted in provider, staff and patient dissatisfaction.
Another problem was where the records were being scanned into the chart. Each department had their own ideas, so there was no consistency and therefore providers were unhappy when they could not locate a particular record on a patient. These never ending problems throughout the group practice were unacceptable and therefore further workflow analysis and research into alternatives was initiated.

**Alternative Decisions Considered**

In order to solve the problems described previously, the Director of Clinical Informatics and Education put together a committee comprised of practice managers, administrators, clerical and clinical staff to investigate three basic solutions: continue with the current process and not make any improvements in the hope of eventual slowdown in record requests, create a centralized scanning department within the multi-specialty group practice, or develop a standardized workflow scanning process throughout the group practice.

**Continuing the current practice**

The first option considered was to continue with the current process. The CSR staff would continue to request and monitor incoming patient records and give them to the providers to sort. Next, the providers would give the sorted documents to the clinical staff to abstract, or in some cases all the documents. The clinical staff would then return them to the CSR staff for scanning. Maintaining this process would be the path of least resistance, requiring no additional training or equipment. It would also continue inefficient workflows, leaving the issue unresolved. Without a resolution, additional staffing may be required to support the overwhelming volumes. This could potentially put a financial hardship on the group practice, patient safety could be jeopardized and provider satisfaction would
decrease because of records not being scanned in timely or in an appropriate, consistent area in the patient medical record.

**Develop a centralized scanning department within the organization**

The next alternative considered was to have a centralized scanning department within the group practice. This idea seemed potentially successful on the surface and is not entirely dismissed of consideration for future purposes. It would provide less work to the staff in the office so they could focus more on customer service. This would increase provider, staff and patient satisfaction. Medical records would be scanned into the patient record in a timely manner. A centralized department would also provide specially trained staff to only scan medical records to the EMR chart, which could decrease the error rate. In addition, providers would be required to standardize the types of medical records they would request based on specialty. This would reduce the amount of incoming patient records and provide consistency. However, setting up a separate department, at this time, would be very costly and currently the organization does not have the resources for training. Therefore, it was decided that this plan would be re-evaluated at another time.

**Develop an Ideal State Scanning Workflow**

The last option researched was creating an ideal state scanning workflow process throughout the multi-specialty group practice. The organization formed a scanning committee to establish improved patient communication, care and safety among the healthcare system and explore the efforts to develop a better workflow that allows for relevant documents to be scanned into the EMR in a timely and accurate manner, differentiating between current and historical records. Streamlining a standardized process
would utilize the current staff at a more productive capacity and provide an opportunity to cross share staff between departments, as needed. This would in turn result in increased patient satisfaction, improved patient safety, provide a great benefit to the healthcare providers and help with the process of moving the organization toward a lean transformation. Lean is a set of concepts, principles and tools used to create and deliver the most value from the patient’s perspective while consuming the fewest resources.

The initial process for incoming patient records would change slightly and a step by step flowchart, standardized work practice and a job instruction breakdown worksheet would be created and utilized across the entire group practice. Each quarter the practice managers would conduct a process review on each staff member for compliance and competency. This accountability would be part of the annual staff evaluation.

**Recommendations from the Committee to select the solution**

The first step in the process was to develop a PDCA (Plan, Do, Check, Act) which is a four-step management method used in business for the control and continuous improvement of processes and products. The four steps include: the desired outcome, the current situation, the recommendations to improve the process and the implementation plan.

Once the PDCA was in place, the next step was to assess each individual department current workflow process. In order to get a good indication of the state of current practice, several committee members visited various departments. They presented a series of questions to the staff and observed the process. One of the key questions asked was if the department had enough scanners to support the volumes. The answers were wide spread across the group. This information was brought back to the committee
for review and interpretation. However, it was felt that with a redesign workflow process, the equipment needs would be sufficient. Several staff members, from the departments observed, were identified as potential trainers moving forward once the new workflow was in place.

With the help of the HIM (Health Information Department) for the organization, the current request for medical records forms were updated to allow each department to request specific patient records based on the practice needs and not the needs of the entire organization. The utilization of these updated forms would also help decrease unnecessary medical records being received.

Currently, the process for scanning labs was to have a separate order number for each lab. Often times, there could be more than one lab report, which resulted in several order entries and repeat document scanning. The IS (Information Systems) team was asked to create a “generic shell” tab for these labs in EPIC. By doing this, multiple labs would be scanned once into the patients chart with one order number instead of multiple order numbers and repeat scanning. The CSR staffs role has been expanded to be able to place order numbers on certain documents, within their scope of job duties and training, in a controlled fashion. By adjusting this process, it has eliminated an influx of records being routed to the clinical staff for abstraction and then being returned to the CSR staff for scanning.

Each department will develop, or already has developed, office based protocols to be obtained for the group, not the individual. This way, staff will be able to sort the records and determine what should be scanned into the medical record, bypassing the providers.

In order to make sure each department would be scanning to the correct tab in the medical record, a scanning grid was created and posted on the system website for easy access.

Once paper records are scanned into the EMR system, they must remain in the department for 90 days. In order to avoid excess documents being kept onsite in each practice, the development of a patient
A record destruction process was put into place. Medical records received and not elected to be scanned into the patient record may be shredded right away. There is no reason to keep them because they are not the original record, they are copies.

Another important step the committee had to decide was what types of information did not need to be scanned into the record at all; for example, insurance notifications and parking forms. A list was generated and put on the organizational website for access.

After many discussions on the training redesign with the new process, it was decided that current department staff would be trained at the department level with identified staff as super-users.

The committee created a standard workflow and the tasks listed are as follows: receiving the document, prepping the document, matching or creating the order, scanning the document, filing the document, performing the defect tracker and auditing the documents before submitting for destruction. The next step is specifying the details of each task. Incoming documents will be consolidated to one central location in the practice every two hours. The process of prepping the document involves stamping each document by date and distributing them by category. Once the documents have returned to the CSR staff from the clinical staff, the CSR staff will match or create an order number. In order to match an order, first they search by date of birth, second confirm two patient identifiers. If a matching order number is not found, then an order number needs to be created. After the document is attached to an order number, it is ready to be scanned and filed by the date scanned, not the date received.

The practice manager will conduct daily tracking to look at the amount of documents not being scanned in. If staff are struggling with scanning documents in a timely manner, the “5 whys” process, which is a technique used in the analyze phase of the Six Sigma DMAIC (Define, Measure, Analyze, Improve, Control) methodology, will be initiated to determine the root cause and based on the findings appropriate action will be taken.
The final step in the process is auditing the documents that have been scanned into the medical record for accuracy. Every quarter, an audit is conducted by the IS team. They are checking for the following “critical errors”: if the document was scanned to the wrong patient chart, if the document was scanned to the wrong order number, if the document is missing two patient identifiers or if the document is missing relevant pages with no notation of what was excluded. After the audit is completed, the practice manager receives a report of the number of errors per staff member in the department. This is also a measurable accountability for the staff on the annual evaluation.

Next, the request for destruction form is sent to the HIM department for approval of destruction. Once the form is returned to the department and signed by a representative from HIM, the medical records can be shredded and destroyed.

Moving forward, after the initial roll out to the multi-specialty group practice, the IS EMR training department for the organization will conduct training sessions for additional staff joining the practice group.

**Decision**

The Director of Clinical Informatics and Education and the administrators of this multi-specialty practice group reviewed the main points of each proposal regarding the scanning process and how it would impact the overall workflow, the volume of records, the cost involved, and necessary resources needed to implement each proposal. They selected the ideal state of scanning workflow proposal based on the reduction of inconsistencies in each department, the decreased number of errors through an organized set of standards which could hold each department accountable, increased efficiency and the value based reduction in over work or re work.
**Implementation**

The Director of Clinical Informatics and Education coordinated with the scanning committee and the IS team to decide the timeline and go live date. The committee met to discuss the standard work process and create a job breakdown sheet with a job instruction training timetable and competency that would be distributed among the super-users and trainers to utilize at each practice site. Three initial departments were chosen as the pilot sites for training to make sure the process was not missing any steps and would be attainable for the staff to understand and follow. This would also allow for accountability to the standard process. After the pilot sites were efficiently utilizing the new workflow process, the super-users and trainers would begin to train the other departments on the process.

**Conclusion and lessons learned**

EMR programs are outstanding for the healthcare industry because they can avoid dangerous mistakes, reduce cost and improve patient care. A big component of a successful EMR system is scanning medical records to the patient record accurately and in a timely manner. This aforementioned multi-specialty group recognized inconsistencies in the scanning process and quickly realized a new workflow process was needed in order to maintain good quality care and provider, staff and patient satisfaction. The standard scanning workflow process that was initiated, and is in the process of being rolled out to all the departments, is helping to reduce backlog, and increase productivity by reducing waste of motion and unproductive processes. The organization has also put in place a goal to reduce the overall error rate by 25% by the end of the fiscal year.
At this time, most of the departments in this group have transitioned to this new workflow process. The training is working well and the process seems to be easy to follow and understand. The staff is being given a print out of the standard work document and the job breakdown sheet. Not only is this helping to be consistent with the workflow, but also is being used as a resource for the practice manager to hold staff accountable if not following the new workflow process. Some department leaders have indicated there is an increase in productivity since establishing the new workflow process, because staff are no longer overwhelmed with the large amount of medical records being received and scanned in the practice which allows more time for other tasks to be completed.

In order for this new process to be maintained and adhered to, it will be vitally important for practice manager’s, moving forward, in each department to perform on-going process review to monitor for inconsistencies or barriers that may develop.