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Scanning Strategies for EMR Implementations

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You purchased your first electronic health record (EHR) system, and now have to get all your paper documentation into it. It can be a stunning realization. Unfortunately, many do not plan for this. However, it's one of the most important aspects to plan, and one that takes almost as much planning and time as the EHR implementation itself. Furthermore, you need to set up a process by which paper documents in the *future* become part of the electronic record.

How does one go about this? You may have guessed it: scan them all in. Correct! But the simplicity of that one-word answer is deceiving. Scanning protocols must be in place or things can get really confusing, ameliorating the objective of an EHR system in the first place.

There is no "one size fits all" for scanning strategies. The only mandatory protocols are those that are law in your state. The others must be developed by your organization and communicated well so that you have a clear process for scanning information into your new EHR; one that can continue past go-live and transform your organization into a paperless environment.

Scanning level: Patient, encounter or order?

There are three major categories or levels of scanning: patient, encounter and order level. Patient-level scanning includes scans of patients' insurance cards, living wills, etc. These documents relate to the patient, aside from the particular visit or procedure. They need to be available to most of the care team, so a scanning strategy should include developing triggers to communicate the presence of a newly scanned document to only those who need to know.

The second level of scanning is at the encounter level. These are documents that relate to the visit. For example, perhaps the patient underwent a procedure during the visit – you would want to find a scanned consent note with the procedure note. All forms and notes created during the office visit should be associated with the visit. The scanning staff also needs the ability and security to create encounters for information coming from outside the facility as well.

Order scanning is the third level. When a provider orders a test – an EKG, for example – the printout of the results should be scanned and attached to the order. This information is then easily available for chart review, and can be routed to the provider for review and action. For numeric results, the preferred method of entry is abstraction so the values are available as discrete data, useable in flow sheets or reporting. Some organizations will also scan the "letterhead" that came with the result to include lab identifying information.

Developing an organizational strategy

Each healthcare organization needs to develop an implementation and post-implementation scanning strategy workflow along with policies and procedures for scanning. Time must be dedicated to training staff regarding these policies, strategy, and workflows. Issues and questions arise on all three levels of scanning. An example of an order-level issue is an order for a consult: the primary care provider orders a consult to cardiology and the patient sees a cardiologist in the system. The information from that office visit will be filed as an encounter, just like the PCP, but with a different provider and department. That part is relatively easy.

But what if the patient sees a cardiologist outside the system? Should the notes from that office visit be scanned to an encounter, or should they be scanned as a result, closing the consult order? It can get complicated, which is precisely the reason that scanning strategies and rules must be well thought out. (In this example, the organization decided to require staff to scan the consult and resolve the order.)

In addition to knowing where to file the scan in the patient record, staff also needs to know whether it needs to be routed to someone else. Workflows and roles/responsibilities must be made extremely clear. For example, who has the authority to do what? Will you allow people to annotate scans, and in which situations? What about quality – is there a monitoring plan? How will you deal with new types of documents? What are the laws for your location regarding document retention – can documents be shredded after scanning? Again, the objective is scanning quality, accuracy and to scan information so that staff and physicians can easily and intuitively access it later.

Sample scanning approaches

There are a variety of scanning approaches, and healthcare organizations often utilize a combination. There are pros and cons with each; therefore, organizations need to determine what works best for their needs.

- Site/location scanning – A cardiology site may choose to scan all EKGs and ultrasounds that are completed within its location. This is helpful because the results are immediately available to all end users. End users need to be trained, and protocols developed. How will the scanning be performed? Will there be staff available onsite to scan, or will loose documents be routed elsewhere? Regardless of who ends up scanning, it is better to continue to have the same person(s) continue the task for consistency, accuracy and efficient workflow.
- Organization scanning – An organization with a robust medical records department may choose to have this department scan all documents. This is a helpful approach because there is consistency in the scanning process. Again, training needs to be completed, and decisions will have to be made. If one chooses this approach, it is crucial to agree on the definition of a fair timeline, and increase staffing levels in preparation for go live to ensure that document information is available to clinicians and staff. A large medical center in the Midwest chose this approach and agreed that all documents would be scanned within 24 hours. It turned out that this was more than the staff could handle. Timelines were not met, and providers were frustrated. It affected the adoption rate of the EHR.
- Outsource scanning – There are several document management vendors which provide scanning services. This approach can be chosen when the organization does not have the resources available on site to support this large endeavor or to augment current staff. Typically a third party vendor is able to interface with the organization's EHR. Typical services include: chart pick up and boxing, chart prep prior to scanning, foreign object removal, i.e., paper clips, staples, etc., QA process during and after scanning, reassemble record after scanning, storage of paper record, chart retrieval, and online access to patient information during the scanning process. These vendors have the staff and equipment to process thousands of documents. They can offer fast turnaround time and normally run a 24/7 service. The cost for outsourcing can vary based on document volume, chart prep, chart retrieval and storage needs.

Best practice tips

Once a strategy is identified, take into consideration the following factors as you further develop your own best practice policies: resources, document types, preparation time, and volume.

- Batch scanning: Many feel that the best practice is batch scanning; however an organization must understand all of their options before determining the appropriate scan method. Batch scanning provides you with the ability to scan incoming documents in batches so that they can be quickly file them into a patient's record. It is recommended that you create separate batches for each document type that you will be scanning. For example, the scan staff would scan all paper lab results for any patient into one batch. Documents can be scanned and filed into a batch throughout the day or at periodic intervals. It is important to note that a provider and or the medical team will not be able to see the document until it has been filed, so it is important to file all documents throughout the day.
- Use filer buttons: Another best practice is to use the filer buttons within scan. This option allows all documents to be batch scanned for one patient and then filed into their designated folder(s). It also allows users to easily move documents from one folder to another, which tends to decrease filing errors.
- Scan and file at the same time: Another option is to scan and file the documents into the respective patient record and folder at the time the image is scanned. This process eliminates the need to return to the items later for filing and can minimize the number of documents to file.

Scanning strategy checklist

We've found that if you can address and identify the four "Ws" (who, what, where and when) prior to beginning your EHR

implementation, your scanning rollout will be more successful. A committee should be tasked with evaluating and assessing the best-practice scan strategy for your organization. This committee will evaluate the legal requirements and risk issues, understanding that the scanning process will be a continuous and crucial part of the EHR rollout. The scanning process should be looked at as an independent project, and needs to occur months before a rollout.

Here are some steps you can take and questions to be answered when developing your scanning strategy:

- Decide what the legal record for the organization will look like.
- Create a decision-making task force/committee to make scanning decisions and to help resolve issues that arise.
- Create a scanning strategy timeline.
- Define training needs.
- Evaluate all scanning options: in-house, centralized, decentralized, outsourced, or a combination.
- Identify associated costs and resources with each option.
- Document workflows to support a paper-to-paperless transition, i.e., interfaced results, scanning incoming paper documents/results post go-live. Develop clear policies identifying the organization's decisions and workflow.
- Determine the process during the hybrid period, when both paper and electronic documentation exist.
- Decide when the paper chart will be sealed and loose material will no longer be filed into the paper record.
- Define a new "release of information." Is the organization going from multiple records to a common record? Will the process be centralized or decentralized? Who will be the custodian of record? Will this be an organizational or site-specific process?
- Identify what is to be scanned from the record, whether charts will be bulked scanned, scanned and filed or a combination of both. Also, what will be done with charts where there are multiple volumes?
- Understand both state and federal health record statutes.
- Will patient data be taken from the paper chart and data entered into the electronic record? For example; meds, allergies, problems, etc. If yes, who will enter, what will be entered, and when will it be entered?
- Identify a universal chart structure for the scan module. Typically your scan chart structure and your EMR chart structure do not need to be identical.
- What will the organization decide to do with the paper chart once it has been scanned? There are two options: (1) warehouse the scanned records (an ongoing cost) or (2) destroy the record (a one-time expense). The organizations need to know what the legal requirements are as it varies from state to state.
- Develop a QA process to validate the quality and accuracy of the data.

Common mistakes

Understaffing is the most common mistake made in the scanning arena. If there are not enough people to get the work done, the scanning piles grow, and information gets delayed. The result is dissatisfaction for both the scanning and the clinical staff. The second most common problem is slow retrieval speed. The third most common complaint is that document types are not clearly defined. "Other" is not a document type, for example.

Scanning protocol is not a question of right and wrong, but more an issue of consistency and communication. The more complex the organization and/or the patient population, the more important scanning protocols become.

The ultimate goal

It's a lot to think about. However, it saves time, reduces chaos and keeps frustration at a minimum. More importantly, your scanning policies and procedures ensure that your organization is legally compliant, and the process is streamlined and efficient (saving time and money); patients' medical information is protected and safeguarded.

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