Migrating from Paper to EHRs in Physician Practices - Retired

Save to myBoK

A successful transition from paper-based charts to electronic health records (EHRs) in the physician practice or clinic requires careful coordination of many moving parts. A myriad of challenging and complex decisions must be made, ranging from selection and implementation to training and maintenance.

Failure to adequately evaluate the clinical workflows and information needs associated with providing care and a lack of planning during and after go-live will result in a fall back to paper, thereby jeopardizing the success of the EHR adoption.

This practice brief outlines the considerations and decisions that must be made for an effective migration from paper to EHRs within a physician practice or clinic. It also provides recommendations about what to do with historical patient information contained in the paper records that exist at the time of the changeover.

Decisions, Decisions

Physician practices and clinics must consider the following questions when transitioning to EHRs:

- Which historical patient information should be available for patient visits during and after the transition?
- What are the best methods of converting this information to the EHR?
- What is the best way to ensure that the converted data and information is of sufficient quality?
- How long should the paper record be available after the conversion?
- How long do paper records need to be kept after the transition to the EHR?
- What is the role of printing and should it be allowed during the transition?

There are no one-size-fits-all answers to these questions. However, they must be considered and will largely be driven by two factors: the types of medical specialties and users in the practice and the information management resources available to the practice.

The Needs of the Practice

Clearly the type of patients seen in the practice will dictate what and how much historical patient information should be converted in preparation for EHR implementation.

Primary care and certain medical specialties such as cardiology generally need more historical information, which requires more types of information such as past diagnoses, diagnostic test results, medications, and significant past medical history. Other specialties whose services are more episodic or consultative, such as orthopedics, may have less need for historical patient information. A multispecialty practice with these specialties will have to obtain consensus from all stakeholders as to how much patient history to include within its EHR.

Practices will need to identify which patients' health information will be included in the conversion. For instance, will the records of all active patients who were seen recently be converted, or will the conversion be undertaken only upon scheduling of a new appointment or service?

Deceased patient records must be stored for the appropriate retention period and should not be scanned into the system. This will allow for all resources to be effectively used to convert current patients.

Use of Paper Records

In planning its transition to the EHR, a practice must determine how paper records will be used during and after the changeover, including printing permissions and restrictions. In the absence of clear guidelines, either activity can easily grow out of control.

Circulating Paper Records

Practices must determine which patient records to convert to effectively make the transition. The appointment schedule can be used as a guide to ensure all patients scheduled have their records converted.

Once a paper record has been converted, staff should use the paper version only as a reference. Practices should clearly document and communicate these expectations to staff. Practices can use reminders and notices on converted paper records to ensure that providers do not add new patient information to these records.

Factors Affecting the Use of Paper Records

Many factors can affect how long a practice uses paper records. The longer a practice uses paper records, the more it will hinder the success of the conversion.

In order to gauge how long and to what extent paper records will be used, practices should examine the method of the rollout during the planning phase of the conversion. There are two types of rollouts: big bang and staged.

In a big bang rollout the whole practice converts to the EHR at the same time. In a staged rollout, the conversion occurs in phases, usually by specialty in multidisciplinary practices or by location in larger practices.

For either method, practices should consider the following:

- How to effectively train staff
- Modifying staffing schedules during the transition
- Expanding or spacing patient schedules during the transition
- How issue resolution will affect the entire practice
- The amount of time for full implementation to bring the entire practice online
- The complexity of the patient
- The amount of historical information converted
- Records that have not yet been converted

In addition, practices that choose a staged rollout must consider how to handle those divisions still using paper to ensure patient safety is not compromised.

There are no specified timeframes designated for when a practice should stop circulating the paper record. However, the longer the record is in circulation, the higher the risk to the practice. The period of time depends on several variables including the rollout schedule, effectiveness of training, and the trust and confidence of the quality of the converted data.

Printing Restrictions

Once the practice has gone live with the EHR, it is imperative that all new patient information is entered into the EHR to ensure patient safety is not compromised. Practices must develop policies and guidelines outlining printing privileges and should not permit any writing or recording of patient information on printed records from the EHR.

Practices must implement and enforce processes for direct entry to eliminate the need for printing records when the patient is seen. The criteria and permissions that allow printing from the EHR and the precautions and actions that must be taken with printed information, including destruction, must also be clearly documented within policies and procedures.

Other added measures that can be taken to help limit the desire to print include reducing the number of printers and placing colored paper in printers to identify records that have been printed. Regardless of the methods used, effective planning, training, and communication are crucial steps to minimize printing during and after the conversion.

Key Participants

The conversion team should include representatives from each discipline of the practice. Clinicians such as physicians, physician assistants, nurses, and other care extenders can provide insight on document and data needs for patient care. These individuals can help select the data for conversion, ensuring the transition is a success.

The practice manager will take an active role on the team. The manager understands the business uses of the data in the record and can identify elements such as demographics, advanced directives, and information used for billing and coding.

The document management and conversion process requires knowledge in data management, data integrity, and compliance and legality of the health record. Optimally an HIM professional would supply this knowledge.

The IT department or staff also needs to be involved. IT must understand the needs of the practice in order to set up the system to properly convert the data to accommodate the practice. IT must also understand the elements to be captured when setting up templates, drop-down boxes, or other areas that require structured data entry. As key participants identify information for the conversion from other systems, IT will be able to assist in determining cost and feasibility for the request.

This multidisciplinary team will ultimately guide the organization in the decision-making process on the method or methods for the conversion process.

Methods for Converting Data

There are multiple methods to consider when converting data. Existing systems and availability of interfaces are decision drivers. These systems may have historical information that help populate the EHR, and direct interfaces may allow for ease of retrievability. Direct data entry and scanning are other options to consider.

Whichever method the practice decides, consideration must be given to both cost and patient safety implications. For example, drug allergies should be entered directly into the system to allow the clinical decision support system to check against prescribed medications. Back scanning drug allergies must be avoided because it cannot be cross referenced and may put patients at risk.

Choosing the appropriate data conversion method also depends on the resources available to the practice for the conversion, the timeframe for the conversion, and the amount of information to be converted. Required elements of the meaningful use incentive program also must be taken into consideration as the practice transitions to an EHR.

Practices must consider how much information will be converted; what information may be interfaced, scanned, or entered directly; the timeframe for the conversion; and staff resources including the costs associated with each option. There are tradeoffs to be considered such as cost of direct data entry, scanning, or custom interfaces.

Direct Data Entry

Back-entering data is one method practices may use to input essential patient information into the EHR. In back entering, items such as medications, allergies, and problems are loaded into predetermined data fields such as a drop-down menu that allow for the data to be used for clinical decision support and other patient activities.

Practice policy must clearly define personnel who will back-enter patient information during the conversion process. Clinical staff, medical students, coders, HIM staff, or other staff well versed in medical terminology and health information can be utilized to ensure the quality of the data entered meets the quality of data expected.

Back Loading Electronic Information from Other Systems

As the EHR implementation begins, transcribed notes may be one component that is back loaded. The need for paper reports will quickly diminish as notes are integrated into the EHR. Consideration should also be given to other ancillary systems such as lab and radiology.

To identify what to electronically back load, the practice should determine:

- The patient population
- Existing electronic information
- Where interfaces can be created or data downloads can be performed
- Whether the final version of the patient information is stored in the electronic system
- Electronic historical information including all patient records, clinic notes, labs, and radiology

Document Imaging

Document imaging is a very resource-intensive process that entails indexing for retrievability and quality. Practices must carefully consider how much patient information will be scanned during the conversion process.

Scanning too much information will impede the provider workflow. Providers will not be able to easily locate pertinent information on the patient with multiple pages and entries to review.

Document imaging may be done centrally, decentrally, or in combination depending on workflow, process, and practice needs. **Centralized document imaging** requires that all documents within the organization be sent to a central location for scanning and indexing into the imaging system. Based on organizational need, documents may be delivered internally or via courier multiple times throughout the day to the central location.

Decentralized document imaging is the process of scanning and indexing at each individual location. Scanning workstations can be placed in various locations throughout a practice or clinic such as in registration areas or other off-site locations. Scanning and indexing can be done immediately or documents can be placed in a queue to be indexed at a later time.

Decentralized scanning may allow documents to be captured more quickly, allowing for a quicker EHR conversion. However, there are some risks associated with decentralized scanning.

For instance, timely scanning may become an issue. Staff members in decentralized locations are not typically dedicated to scanning, so this is usually the last task to be completed and thus often not accomplished daily.

Another risk occurs when the decentralized staff must index the documents. The consistency of the filing can be compromised because decisions about how to file documents often differ from site to site, even though policies and procedures are clearly outlined.

Whether practices choose to employ centralized or decentralized scanning, they must ensure they have the right policies and procedures in place to validate data quality (e.g., audits and training). Centralized scanning is recommended for ensuring standardization and consistency in retrievability of patient information. The best quality and turnaround time are usually achieved when staff are dedicated to the document imaging process.

Conversion Resources

Depending on the size and needs of the practice, the budget and staffing required for the conversion could range from very little to a factor approaching that of the EHR implementation itself. Conversion is generally accomplished using one or more of the following:

- Manual data abstraction from paper records
- Computer data interfaces between existing systems such as practice management software
- Document imaging of paper records

These methods are all labor intensive and require solid data validation and other quality control mechanisms. Practices should limit the amount and type of data converted from existing paper records in order to make optimal use of their resources. It will ultimately be up to the clinicians to make these decisions. However, common data and information types that are minimally considered for conversion to the EHR include:

- Key patient demographic data

- Problem list
- Historical procedures
- Allergies
- Current medications
- Referral sources and follow-up
- Medical device or implant information, including manufacturer, date, and serial number
- Immunizations
- Growth charts for pediatric patients
- Legal documents such as advanced directives and custodial agreements

This list is not all inclusive. Appendix A offers a form practices can use for each paper record that staff converts into the EHR.

A practice's decision to apply for the meaningful use incentives will also affect what information should be converted. For example, the conversion of the first five bulleted items above as patients are seen may potentially increase the organization's ability to meet the measures in these areas.

Ensuring Data Quality and Integrity

Securing user trust in the integrity of the data is a critical factor for a successful EHR implementation. It is imperative that data are not only accurate and complete but valid as well. Data accuracy is not only critical for patient care, but it also has many downstream implications, such as quality reporting, billing, and outcome studies.

Data validity is the correctness and reasonableness of data, while data integrity is the completeness and wholeness of the data that also complies with the intention of the creators of the data.[1] Data that are not trusted or found to be valid can lead to many issues and ramifications throughout a patient's healthcare continuum such as inefficiency, unnecessary services, or even harm to patients (due to incorrect data).

A high-quality EHR should be an evidence-based decision-making tool. Proper data conversion into an EHR will improve quality of care and patient safety and create efficiencies. Without accurate and appropriate content in a usable and accessible form, these benefits will not be realized.[2]

The result is costly and could be fatal, so it is crucial that practices ensure data accuracy and integrity.

Data Quality Programs in EHRs

Practices implementing EHRs should create a program to promote and monitor data quality after go live. Developing a data quality program requires ensuring EHR and practice processes are standardized and procedures are uniform.

Clear and concise documentation guidelines and training on responsibilities and expectations are imperative and must take into account regulatory, governmental, and accreditation standards (where applicable).

Practices must monitor and audit data for compliance with their data quality programs on both the back end and the front end to ensure accuracy and overall compliance throughout the conversion. They will need to decide what data to clean up, how far back to go, and how long the transition will take.

All data quality programs should include at a minimum:

- Identifying key personnel to audit and manage data
- Developing a schedule for testing, auditing, documenting errors, and corrections of all pertinent areas
- Creating and implementing policies and procedures to ensure data integrity, accuracy, and completeness
- Training and educating staff on the importance of data integrity and accuracy and the expectations and responsibilities of the program

As a practice migrates its patient data from paper records to the EHR, it must conduct quality checks at each step of the conversion to ensure accuracy and integrity. At minimum, quality checks must ensure that record elements entered into the

EHR:

- Match the data in the paper health record
- Are indexed appropriately in the EHR
- Are placed on the correct patient
- Match the data elements defined by the practice

Audits

Audits will help ensure the accuracy and integrity of the data. Staff must be held accountable for all their actions within the EHR throughout the conversion from paper. Policies must clearly define the practice's audit process in detail, including how often audits will be conducted, results reported, and errors corrected.

Practices also require procedures for reconciling interfaces and notifying designated staff of incorrectly entered information. The designated staff must work collaboratively with clinical staff as needed to investigate and make corrections, taking into account all systems.

Training

Training, combined with readily available resources such as tips and guides, will provide staff with the tools needed for the conversion. Enforcing the policies and procedures is also key to ensuring data quality. An effective and well-planned training program will ultimately reduce the risk to the practice and improve overall quality of care.

Destroying the Converted Paper-based Record

Once a paper record has been converted to electronic media, it may be destroyed. However, there are no set standards as to how long the converted records should be maintained. The retention period for electronic records depends on the confidence and trust users have in the converted data.

Practices should have a plan in place to destroy the paper-based records in a reasonable timeframe. Once users are confident that the data conversion was successful, it is safe to destroy all paper-based information that has been converted.

Practices should review state laws to determine if retention of patient information that has been converted from paper to another media is addressed. Once decided, the destruction plan must be clearly communicated throughout the organization.

Notes

1. Davis, Rob. "What Is the Difference between Data Validity and Data Integrity?" Available online at www.softwaretestengineer.com/free2/software-qa-testing-test-tester-2215.html.
2. AHIMA e-HIM Workgroup on Assessing and Improving Healthcare Data Quality in the EHR. "Assessing and Improving EHR Data Quality." *Journal of AHIMA* 78, no. 3 (Mar. 2007): 69–72.

References

AHIMA. "Destruction of Patient Health Information." Updated November 2002.

AHIMA. "Managing Existing Paper Records in the Transition to EHRs in Physican Practices." June 2010.

AHIMA. "Quality Data and Documentation for EHRs in Physician Practice." *Journal of AHIMA* 79, no. 8 (Aug. 2008): 43–48.

AHIMA. "Retention of Health Information (Updated)." *Journal of AHIMA* 79, no. 8 (June 2002).

Dougherty, Michelle, and Lydia Washington. "Defining and Disclosing the Designated Record Set and the Legal Health Record." *Journal of AHIMA* 79, no. 4 (Apr. 2008): 65–68.

Appendix

Appendix A: "Historical Medical Record/Chart Abstraction Checklist—Primary Care"

Prepared by

Angela K. Dinh, MHA, RHIA, CHPS
Marta S. Kennedy, RN, CPC, MCMC
Susan G. Perkins, RHIT, CCS, CHC
Lucinda L. Peterson, RHIT, CASC
Diana Warner, MS, RHIA, CHPS
Lydia Washington, MS, RHIA, CPHIMS

Acknowledgments

Jill Clark, MBA, RHIA
Jane DeSpiegelaere, MBA, RHIA, CCS
Colleen Goethals, MS, RHIA
Mary Stanfill, MBI, RHIA, CCS, CCS-P
Lou Ann Wiedemann, MS, RHIA, CPEHR

The information contained in this practice brief reflects the consensus opinion of the professionals who developed it. It has not been validated through scientific research.

Article citation:
AHIMA. "Migrating from Paper to EHRs in Physician Practices - Retired." *Journal of AHIMA* 81, no.11 (November–December 2010): 60-64.
