Your Guide to Implementing the EHR: AHIMA Work Groups Deliver Best Practices

AHIMA member work groups took a vision of the e-HIM future and wrote the user's guide, chapters 1–6. Here are the highlights.

In 2003 AHIMA appointed a task force of experts to develop a vision of the e-HIM future. To advance the recommendations of the task force, AHIMA created volunteer member work groups to develop practice standards for areas that play an integral role in the transition from paper to electronic health records. The following issues were selected for the initial standards development:

1. The Complete Medical Record in a Hybrid Electronic Health Record Environment
2. Implementing Electronic Signatures
3. E-mail as a Provider-Patient Electronic Communication Medium and Its Impact on the Electronic Health Record
4. Electronic Document Management as a Component of the Electronic Health Record
5. Core Data Sets for the Physician Practice Electronic Health Record
6. Speech Recognition in the Electronic Health Record

In October, a series of practice briefs and other resources were released to AHIMA members. These materials can be found in the FORE Library: HIM Body of Knowledge at www.ahima.org/infocenter/ehim. This article contains highlights from each practice brief.

Part 1: The Complete Medical Record in a Hybrid Electronic Health Record Environment

Part II: Managing Access and Disclosure

Practical Discussion for Managing Access and Disclosure in the Hybrid Environment: Access and Retrieval
The location of components of the legal medical record and designated record set may need to be cross referenced to alert users of the health record of what information exists across both the paper-based and electronic health record, particularly as new or revised computer systems are implemented or updated. Additionally, organizations will need to consider reviewing and updating their policies and procedures on access, disclosure, and printing for both the legal medical record and designated record set at least annually. Consideration should also be given to information stored on legacy systems that use old or no longer supported technology and how this information will be retrieved as the EHR evolves.

Dissemination and Disclosure

In a hybrid environment, it is important that organizations develop and implement policies and procedures that describe the circumstances under which electronic documents may be printed. This is important because:

- The electronic copy will likely contain the most current information.
- Printing documents prevents the organization from optimizing its return on investment. The organization will be spending money on printers, toners, paper, retention, and destruction. These resources could be better applied toward making sure that there are adequate points of access to the electronic information wherever needed.
- Users may be inclined to make notes on the printed copies, further complicating operational management of these documents because these notated copies would need to be retained as part of the legal health record.
- It is difficult to manage and secure printed copies.
- Once users are given permission to print, it is difficult to teach them to stop.

In particular, organizations must address the handling and disposition of printed interim reports, weighing the risk to the organization of the performance of the following options:

- Maintaining all interim results reports within the health record
- Maintaining only the interim reports when the final results are different

Maintaining all interim results reports provides the greatest measure of security for the organization but does result in a high volume of duplicate reports within the health record, particularly in a paper-based environment. This can also lead to confusion regarding which report to use, especially for future access and disclosure.

The hybrid health record should also reflect who received disclosed information and whether it was paper-based or electronic. As organizations work toward tracking disclosures electronically, they should build interfaces between programs that allow disclosure of information electronically along with any disclosure-tracking log. The accounting should be available for review by the patient upon request.

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Part 2: Implementing Electronic Signatures (Updated)

Editor's note: The following information supplants information contained in the practice brief "Electronic Signatures (Updated)," published in the October 1998 Journal of AHIMA.

Skills Required for Implementation of Electronic Signature

The following list of roles and accompanying skill sets includes a number of topics that require decisions during the planning process. This list is meant to trigger discussions that are germane to individual environments and may result in new or revised job descriptions.

Champion(s)

- Have the respect of peers and ability to convince others
- Possess keyboarding skills
- Understand processes that may change with implementation of electronic signature
- Know where to get help when needed
- Learn use of required functions of the system
- Understand which documents will be electronically signed and which will retain manual signatures

End Users

- Possess keyboarding skills
- Understand processes that will change with implementation of electronic signature
- Know how to get help when needed
- Use required functions, including options available for editing, signing, addenda, which documents will be electronically signed, and which will retain manual signatures
- Know how to obtain or change a password and where to get help if the password is forgotten or lost

Executive Sponsor

- Have the respect of clinicians and staff
- Provide unwavering support for implementation of system as well as policies and enforcement mechanisms
- Understand processes that may change with implementation of electronic signature

HIM Clerical Staff

- Possess keyboarding skills
- Understand processes that may change with implementation of electronic signature
- Know how to get help when needed
- Use required functions of the system
- Understand which documents will be electronically signed, remain with manual signatures, and require no signature
- Know how to obtain or change a password and where to get help if the password is forgotten or lost
- Know and be able to perform role in the contingency plan

HIM Manager

- Be a department-level manager or director with overall responsibility for electronic signature
- Have a high degree of understanding of application
- Understand processes that may change with implementation of electronic signature
- Know how to get information when needed
- Understand which documents will be electronically signed and which will retain manual signatures

HIM Transcriptionists

- Possess keyboarding skills
- Understand transcription processes that may change with implementation of electronic signature
- Know how to get help when needed
- Use required functions of the system
- Understand which documents will be electronically signed, remain with manual signatures, and require no signature
- Know how to obtain or change a password and where to get help if the password is forgotten or lost
- Know and be able to perform role in the contingency plan

Project Manager

- Deliver positive reinforcement for using the application
- Be capable of garnering trust and confidence of the executives and steering committee
- Possess strong organizational skills
- Have ability to manage project along the critical path to implementation
- Possess outstanding communication skills
- Have ability to work with and gain the trust of clinicians and staffs of widely varying backgrounds and levels of skill
- Possess basic project management skills of working with teams, organization, planning, business process re-engineering, implementation, and budgeting
- Have proficiency with the tools of project management and reporting

System Administrator

- Understand entire application and mechanisms in place
- Be responsible for assigning levels of authority and privileges for the application
- Possess keyboarding skills
- Understand processes that may change with implementation of electronic signature
- Know how to get help when needed
- Use required functions of the application
- Know where to obtain or change a password and how to get help if password is forgotten or lost
- Know and be able to perform role in the contingency plan

Trainers

- Possess patience
- Deliver positive reinforcement for using the application
- Have outstanding presentation skills for groups and individuals

- Possess ability to communicate with and answer questions for providers of all backgrounds and levels
- Understand "as is" and "to be" work flow if there will be changes
- Have knowledge of application and work flow in order to suggest ways of integrating electronic signatures into the provider's work flow

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Part 3: E-mail as a Provider-Patient Electronic Communication Medium and Its Impact on the Electronic Health Record

Electronic Document Management Recommendations

E-mail must be treated like any other healthcare organizational business record (e.g., patient medical record, patient financial record, employee record) because it is subject to the same course of evidentiary discovery and has a life cycle that requires management guidelines (i.e., it is created, indexed, searched, retrieved, routed, stored, and purged).

E-mail management is an enormous, complex problem. This problem is expected to get worse as the numbers and types of senders and receivers (e.g., providers and patients) increase exponentially. Therefore, the following guidelines are recommended:

- Identify existing, **enterprise-wide repositories** that securely store (or should store) e-mail records and attachments that merit evidentiary handling.
- Develop or acquire an easy to use yet **functionally robust e-mail management system** that includes a centralized archive. The e-mail management system should:
    - Have **intuitive methods for identifying** e-mail classifications and retention rules. For example, one classification might be healthcare-related information that is linked directly to the master patient index. Another classification might be meetings and general business communication information. Different retention rules could be linked to each classification group.
    - Include dependable **search capabilities** as well as fast and efficient access to archives.
    - Have an "open architecture" allowing for **compatibility** with popular e-mail systems.
    - Enforce e-mail **archiving** policies. For example, when an individual closes an e-mail and is ready to discard or save it, a prompt should appear with a yes-or-no choice asking if the user would like to make this a part of any of the healthcare organization's "business" records (e.g., classification of patient medical records). This "opt in/out" e-mail capture function can be eliminated if the healthcare organization declares ahead of time that the e-mail must always be retained to comply with a regulatory, legal, or business need (e.g., an e-mail correspondence between a provider and a patient). In addition, this function can be managed in the background using Web technology so that, for example, each new patient added to the master patient index triggers a domain name, with all inbound and outbound e-mail captured for patientname.com.
    - Include **retention rules** that are triggered automatically by actions. This includes automatically deleting or encrypting a "patient class" of e-mail after X number of days/months/years so it cannot be accessed. (Note: Never archive encrypted e-mail records for fear of losing the algorithms or keys.)
- **Create** appropriate rules, policies, and procedures specific to each organization upon system deployment to eliminate the risk of purging e-mail attachments in a storage crisis. These systems quickly become overwhelmed by metadata and attachments.
- Establish a methodology to meet **HIPAA's** requirement for providing an accounting of disclosures.

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Part 4: Electronic Document Management as a Component of the Electronic Health Record

Planning Steps/Checklist

Once you have determined your facility is planning to move forward with the implementation of an EDMS, the detailed planning steps must begin. To ensure a full return on investment, it is important to complete each step with adequate time for planning.

In addition, remember to include the appropriate stakeholders (users, influencers, key decision makers, etc.) into your planning. Some of these key players may already be on your electronic health records task force. You may call others into a decision-making component of planning only as needed.

While all the planning activities should be initiated as soon as a decision is made to move forward with implementation, a sample checklist is provided with examples of timing and the appropriately involved personnel. Note that the entire planning checklist may take six to 18 months to complete.

There are 11 key steps in the planning process:

1. **Assembly:** Ensure the record is in the optimal physical order for efficient processing for records to be scanned.
2. **Types of records:** Determine where each of the following is stored and how reconciliation will occur on a daily basis (check in and account for each chart, even outpatients).
3. **Forms inventory/format:** Create inventory with sample of each form.
4. **Loose/late reports:** Determine policy on receipt of loose reports, adding in order or filing in back of chart, and codifying once entered into system.
5. **Physical layout of equipment:** Determine work flow in HIM department.
6. **Analysis, deficiency, and electronic signature process:** Ensure that the medical record is complete and that entries are timely according to established rules and regulations.
7. **Paper storage/filing:** Determine disposition of paper documents after scanning.
8. **Communications:** Ensure that all stakeholders receive critical information about the new system and the impact.
9. **Quality assurance:** Index and perform quality control after documents are scanned. Indexing is performed to assign document names and encounter numbers to each document. Quality control is performed on 100 percent of images to review the quality of the scan. In addition to this initial quality control, ongoing quality monitoring should be performed on a random basis.
10. **Policy and procedures:** Develop new policy and procedures.
11. **Legal considerations:** The information stored is the entity's business record (in healthcare, the legal record). A plan to house this information on media other than paper must be scrutinized by legal counsel to ensure that the technology being considered can comply with federal and state laws, requirements for licensure, and credentialing along with operational needs and that it is consistent with existing policies and procedures. There should also be a risk management component to ensure that there will be no compromise to patient care and that documents required for lawsuits remain available. This latter consideration may impact a facility's decision on how to proceed with their documents once scanned into the imaging system.

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Part 5: Core Data Sets for the Physician Practice Electronic Health Record

Best Practices

The acceptance and value of the EHR within physician practice settings are directly related to the EHR's usefulness for real-life application. In addition to addressing administrative and financial realities, the EHR must offer indispensable clinical benefits to make the effort to shift from a paper to electronic environment worthwhile. Caregivers require practical, related information during patient visit, assessment, treatment, and follow-up phases. The foundation of core data sets must be information that drives care-giving activities. The aggregation of this data, in turn, builds the EHR.

The AHIMA e-HIM Work Group on Core Data for the Physician Practice EHR, author of this practice brief, believes that in order to understand the data needs of a physician practice, one first must understand the clinical work flow of a physician practice. Thus, it is essential to provide a model that the clinician and others will understand and use to acquire, design, and implement EHRs.

Clinical work flows became the framework to develop model core data sets as the blueprints for EHR development in a physician practice. Specifically, model core data sets were created for eight sample clinical work flows. Four basic types of patient visits, for both new and established patients (and for both well and sick visits), were identified for pediatric and adult patients. The core data collected during well and sick visits for pediatric and adult patients are itemized and organized within the framework of the work flow that takes place during these visits. These data sets are not specific to any particular specialty or size of physician practice.

The eight clinical work flows and their corresponding core data sets are intended to be used by physician practices as a guideline and model for the development and implementation of an EHR in their practices. The clinical work flow begins with the patient (new or established) arriving at the reception desk and registering for the visit (well or sick), as well as completing the necessary consents and authorizations. The clinical encounter begins with vital signs being taken, followed by chief complaint/reason for visit, then on to history of present illness, and so forth.

In each step, the core data needed to complete the documentation are identified. Each clinical work flow ends with the clinical encounter being completed and the patient being discharged, having received the necessary patient handouts, instructions, and so forth. Although these work flows focus on primary care for both adults and children, the model is adaptable to other specialties and healthcare settings.

Core Data Sets

Pediatric Well Patient Clinical Work Flow: New Patient and Established Patient

	New Patient-Pediatric Well Visit Core Data		**Established Patient-Pediatric Well Visit Core Data**
Administrative or Front Office Function	**Demographic and Administrative Information** Patient name Address Phone number DOB Age Sex Race and ethnicity Religion (opt) Parent(s) name · Custodial parent · Noncustodial parent · Guardian	**Administrative or Front Office Function**	**Demographic and Administrative Information** Patient name Address Phone number DOB Age Parent(s) name Insurance verification

	· Self (for emancipated minor) Phone number (per parent or guardian) Address (per parent or guardian) Emergency contact Occupation of parent or guardian Insurance information · Primary insurance: name, address, and policy and group number · Secondary insurance: name, address, and policy and group number · Name of insured for primary and secondary policies · Address of insured Consents and release forms Preferred pharmacy Notice of privacy practices acknowledgment		

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Part 6: Speech Recognition in the Electronic Health Record

Driving Forces

Speech recognition used directly by the physician-dictator, in conjunction with an electronic health record (EHR), or as a background process using server-based recognition becomes a viable option in the face of decreasing reimbursement, rising costs, growing labor shortages, and increasing demands for more complete documentation provided in a more timely manner.

When coupled with speech recognition, the EHR may provide the ideal combination of flexibility, convenience, and efficiency. It combines the best of both technologies and goes a long way in minimizing the drawbacks.

Benefits and Risks

Speech recognition technology (SRT) has the potential to enhance clinical documentation in multiple ways. To keep up with documentation requirements, implementing SRT may be the key to making healthcare clinicians and medical transcriptionists (MTs) more productive participants in the documentation process and keeping pace with increased demands. There is a clear interest and movement to use speech recognition in the healthcare setting.

The Benefits

Improved Turnaround. Many facilities are experiencing transcription turnaround delays in the range of 24 to 48 hours or longer. Speech recognition has the potential to improve that wait time dramatically.

Reduced costs. When MTs are used as medical text editors for a transcript generated by speech recognition on a server, reduced costs expressed in productivity gains for MTs are based on the expectation that the MT will no longer be required to manually produce the entire dictation. Productivity gains should be measured against the generally accepted industry standard of four minutes of transcription time to each one minute of dictation, and average edit review time of two to three minutes per one minute of dictation.

Dictating—whether in the traditional way or to SRT—is not only less time-consuming than handwriting, but typewritten records are legible and usually more detailed and complete. SRT has the capability of enhancing physician productivity, leaving more time for direct patient care.

Error Reduction. Editing text, whether done by physician or MT editor, reduces content errors in patient reports, provided it is done meticulously prior to signing.

Improved, Timely Medical Decision Making. The medical decision making process is optimized by information. The use of speech recognition can reduce the amount of time it takes for information to be made available to other healthcare providers.

The Risks

Time Is Money. The cost in time to the physician-dictator in using front-end speech recognition is most likely based on more than perception.

Editing Costs. Unless the recognition accuracy is very high and the software package has been enhanced to speed the process, the amount of time it takes to edit and format a document transcribed by server-based SRT could exceed the time it takes just to transcribe manually.

Costs. SRT can be a costly investment. Before decisions are made regarding such capital expenditures, a facility will need to look at many options, consider varying technology solutions, and explore future upgrades to the technology as well as maintenance costs.

Technology Mismatch. A technology that does not align with an organization's needs could be catastrophic. Having the support of administration, and especially the IT department, in adapting SRT will be a determining factor in the potential success of the project.

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