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Imaging Solutions for Remote Coding Vs. Medical Record Document Imaging Systems

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Leslie: Remote coding systems using imaging technology were developed as one answer to our nation's coder shortage problem. This technology-based solution enables coding to be accomplished remotely and is expected to help facilitate the transition to home-based coding. Many of our readers have expressed an interest in remote coding systems and the desire to leverage these systems as a stepping-stone to a complete document imaging system for medical records. Patty, can a remote coding system lead to a document imaging system?

Patty: That's a great question Leslie and one we are frequently asked to discuss with our clients and readers. Remote coding systems make use of imaging technology, but they are not document imaging systems in the sense that they do not constitute a complete electronic medical record (EMR). To better answer your question, we need to first discuss how remote coding systems work and how document imaging systems differ from remote coding systems.

Most remote coding systems leverage the Internet and use scanning platforms as a way to digitize documents so they can be viewed in an electronic format. Because the Internet is used as the method to store and access images, authorized users can access these images from anywhere in the world. Records are scanned at the hospital, encrypted and sent via the Internet to secure servers. Coders access the documents from home-offices or other remote locations to review and assign codes.

Most often, the cost of the scanning equipment is nominal or included in the overall price to the hospital for the use of the technology. There is no need for a capital investment because the costs can be expensed as pricing for the technology is usually calculated in transaction fees, i.e., per record rates. However, the implementation of a remote coding system requires some up-front investment such as purchasing the computers and Internet access home-based coders need to equip their home offices.

It is common to begin a remote coding program by scanning outpatient records such as same-day surgery and emergency department records. In many cases, the entire record is not required for coding, thus, only documents required for coding are scanned. This is particularly true for inpatient records, which are harder to work with in electronic format because of their length. By scanning only documents needed for coding, the inpatient records become more manageable for the coder. Images are stored on remote servers hosted by the remote coding application vendor for a period of time, usually around 30 days or longer as specified in the vendor contract. Some vendors allow access to these images/records during the storage period to facilitate quality assurance (QA) activities or record access.

Leslie: What kind of document management functionality do remote coding systems have and how do they differ from imaging systems?

Patty: Remote coding systems have limited document management functionality. For example, they cannot typically insert or move documents to different locations within a record or to another encounter if scanned in error. "Loose sheets" scanned at a later time are added to the end of a record as opposed to the correct order in which that document would normally appear. In addition, remote coding applications do not have comprehensive indexing schemes that support indexing at a granular level such as document ID. Remote coding systems rely on patient and encounter level indexing—capturing key demographic information such as medical record number, encounter dates, etc. Ideally, a master patient index (MPI) and/or admission, discharge, transfer (ADT) interface automates the patient and encounter level indexing, negating the need for manual indexing.

A document imaging system also relies on patient and encounter level indexing. But that's where the similarities end. A document imaging system requires the ability to retrieve images by document such as progress notes. Therefore, document imaging indexing methods associate an image with a document. In a remote coding environment, this is helpful but not necessary. In fact, the beauty of remote coding systems is that it supports limited indexing, thereby decreasing the amount of scanning and indexing time. This is an example of how remote coding systems were designed to facilitate a very specific health information management (HIM) function as efficiently as possible.

Comprehensive document imaging systems support many more medical record processes. For example, automating record analysis and providing electronic signature capabilities facilitates record completion. They often support release of information functions and are intended to provide facility wide access to records. In some cases imaging systems are considered the legal medical record.

Leslie: What about workflow functionality?

Patty: Remote coding systems vary in their ability to support coding workflow, but all remote coding systems have some kind of routing built into their product. Interestingly, this is not the case in document imaging systems. Most of them do not have coding workflow built into their systems. Workflow tools are the foundation of document imaging systems so it may be just a matter of time before coding workflow functionality is included. Few if any electronic medical record systems and/or document imaging systems currently support a remote coding process (work distribution, workflow, QA etc.).

Leslie: Now that we understand some of the fundamental differences between remote coding and document imaging systems, what questions need to be asked to know if remote coding systems can support document imaging needs?

Patty: The HIM professional will need to define their document imaging requirements and work with their remote coding systems vendor to determine which requirements the coding vendor can and can't meet. For example, a common requirement asked of remote coding system vendors is to provide images on CD or to have the images exported to the facility's electronic medical record system so they can be integrated with existing clinical data such as lab, radiology, orders, etc. In this scenario, the remote coding systems vendor and the facility must discuss the indexing requirements and determine if patient and encounter level indexing will suffice or if additional indexing will be needed. Additional indexing may require some customization and will increase indexing time.

Remember, the purpose of remote coding systems is to facilitate coding, thus, not all documents are scanned. Records are typically scanned within a day or two of discharge/encounter and therefore they are usually missing signatures and/or documents. These two factors render the records incomplete at the time of scanning. As we discussed earlier, remote coding systems have bare bones document management functionality. To use these images for archival purposes would require scanning complete medical records,

which will increase scanning time and delay the coding process.

Leslie: As HIM professionals consider how to extend the use of remote coding systems to other areas, they need to understand the facility's document imaging plans and needs, and be realistic about the document management capabilities used in remote coding systems. If they pursue using remote coding systems for other functions such as long-term storage and retrieval, it will be important to select a patient type that lends itself to being complete after discharge, such as emergency department records. They can then work with their remote coding vendor to provide storage and access to these record types while they work toward a document imaging solution. Patty, how long does it take to implement remote coding and document imaging systems?

Patty: Remote coding systems that are designed to specifically support coding workflow and are delivered via an application service provider (ASP) model can be implemented within a few weeks. Implementing a document imaging system is far more complex and generally has a 12 to 18 month implementation timeline. Both implementations require redesigning current workflow processes to gain efficiencies afforded by the technology. Implementing document imaging systems, however, includes forms redesign and substantial process redesign that affects more users, including physicians, HIM staff, case managers and other users who work with medical records. Imaging systems also positively affect patient financial services (PFS) by automating many of the PFS functions.

Leslie: I spoke with Deborah Kohn, RHIA, of DAK Systems Consulting last week, and she said, "There seems to be renewed interest in medical record document imaging systems as chief information officers (CIOs) realize that document imaging systems are a necessity if we ever hope to significantly reduce the amount of paper generation and dependency in the workplace. After a lull in implementations for the past several years, they are coming back into fashion again." What does this mean for our readers?

Patty: It means that we can get closer to achieving a computer-based patient record (CPR) and significantly reduce the clerical activities in the HIM department! Having been involved in an imaging project in the late '80s and early '90s, this is an exciting topic for me. The number of imaging vendors on the market has been greatly reduced as a result of mergers and acquisitions, and the big clinical system vendors are incorporating document imaging within their EMR products. This is a great topic for October. Shall we explore what HIM professionals need to know about implementing a complete medical record imaging system in our next column?

Leslie: Sounds great. We can also discuss how remote coding systems can complement an imaging system. But I don't want to leave our readers hanging on the question of whether or not remote coding systems can be a stepping-stone to an imaging system. From what you have explained, I would conclude that a remote coding system can give the HIM department experience with imaging technology and how work processes change when such technology is implemented. Imaged documents created for remote coding purposes can be stored and integrated with more comprehensive systems at a later time if the records are complete and indexed sufficiently.

Patty: That's it in a nutshell! Happy Fall!

Leslie Ann Fox is president and chief executive officer and Patty Thierry is vice president of operations and chief information officer of Care Communications Inc., a Chicago-based HIM services company whose newest services are CAREcoding.com and YourStaff@Home. They invite readers to send their thought and opinions on this column to lfox@care-communications.com or pthierry@care-communications.com.