Record Limbo: Hybrid Systems Add Burden and Risk to Data Reporting

by Chris Dimick

Maintaining dual paper and electronic systems is often a necessity in the transition to digital record systems. The challenge in reporting data is keeping track of what data reside where.

The transition from paper to electronic records is occurring in many HIM departments across the country, but few simply flip a switch and send their facility buzzing into the digital age. Instead, HIM departments must live in record limbo, switching between new electronic systems and old paper documents.

HIM professionals working with a hybrid medical record face unique challenges that affect many functions, notably collecting and reporting data. The hybrid environment adds burden and risk to release of information requests, quality initiative reporting, and litigation requests.

Alice Charoonsak, RHIA, has seen these challenges firsthand at OU Medical Center, based in Oklahoma City, OK. The HIM director says the problem increases when staff is pressed for time.

“It has been a nightmare,” Charoonsak says about locating documents in the hybrid environment. “Like when we get the state health department in here and they want records quickly. We made up a cheat sheet to list where everything is and what system that we have to go to and print it out. We have to make sure that we gather all the documents that we can get.”

Many HIM department staff see similar problems daily. The issues can’t be truly solved until a facility converts to a full electronic health record system, which will take years for some facilities. In the meantime, the challenges must be dealt with, and HIM departments adapt by methodically tracking the location of each record component across the organization and over time.

Hybrid Woes

In the “olden days,” all records a patient or attorney would request lived in a single paper record, Charoonsak says. Those days are long over at OU Medical Center, where data are stored half in paper and half in electronic systems.

The hybrid health record is especially commonplace today in acute care facilities, according to Deborah Kohn, RHIA, MPH, FACHE, CPHIMS, principal of Dak Systems Consulting. This is partly because acute care hospitals usually have implemented several electronic systems, servicing specific areas of the hospital, in piecemeal fashion over time.

The biggest challenge to HIM departments is the amount of time it takes to compile a complete medical record, Kohn says. “You have to go and pull the paper record, and then you have to go to the system or systems and retrieve electronic documents,” she says. “And it can be challenging to figure out where all the different pieces are, whether they be digital records or analog records.”

This challenge was prevalent at a Virginia hospital recently acquired by the Mountain States Health Alliance, a network of 15 healthcare facilities based in Tennessee. When the Virginia hospital was acquired, its nurses and clinicians were recording bedside documentation electronically in a clinical documentation system, while most other documentation, such as physician progress notes and orders, were paper-based and stored in a paper medical record.

The HIM department in the Virginia hospital did not print the extensive notes contained in the clinical documentation system due to the enormous burden it would create both to the staff and budget, says Donna Coomes, MBA, RHIA, CPHQ, CCS, the corporate director of medical records at Mountain States Health Alliance. This left part of the patient's record stored electronically in the clinical documentation system and part of it on paper stored in the HIM department. After her organization acquired the hospital, Coomes knew the system would have to be changed.

"What that left, in my opinion, was lots of challenges, because if you had a request from an attorney or insurance company you couldn't go to one location to get the complete medical record," Coomes says. "One of the challenges was for the staff to know that it is not all in a permanent file medical record, but some of it is on the computer."

Every time a record was compiled for an attorney, the organization risked leaving out a vital document, Coomes says. Keeping the integrity of the record intact was also a challenge, since it is harder to control addendums or updates when the record is spread over two systems. "It was not acceptable to have part of the record in electronic and part of it in a paper medical record," Coomes says.

Coomes succeeded in getting the medical record storage process changed so all paper documents are now scanned postdischarge into an imaging system. All labs and other electronic documents, including the clinical documentation system records, are correlated with imaging into one electronic legal medical record. Records are now controlled and accessed in a single system.

"I really think from an end-user perspective you need to have them go into one place and you need to be able to control that medical record and who has access to it postdischarge," Coomes says.

But many hospitals still struggle with their own hybrid processes, especially with release of information requests.

Release of Information

Release of information requests in hybrid records are not always problematic, Charoonsak notes. If a patient requests a document that is stored solely within an electronic system, that release request can be obtained and printed efficiently. Problems arise when a patient needs a medical record that is spread out over paper and electronic systems.

If a requester asks for documents that are both digital and analog, the HIM professional must first determine where those documents live and then search for them in their respective systems to fulfill the request. The process is time consuming, and it can involve tracking down a document through various systems, Kohn says. It requires accurately developed, well-documented processes for locating the pieces of the record; without them, a routine search can easily devolve into a scavenger hunt.

Quality Reporting

Challenges also arise in the hybrid environment when facilities take part in quality reporting initiatives. Quality reporting comes down to collecting the data within a record's documents. But before any data are collected, an HIM professional must first find the document containing that data. "If you can't find the document, it is going to be hard finding the data," Kohn says.

Even when documents are scanned electronically into the record, data mining is difficult if the document data were not entered into the system in a structured way. Most quality reporting agencies such as the Joint Commission and the Centers for Medicare and Medicaid Services (CMS) require that reporting is done electronically. Organizations working in the hybrid world must meld their different paper and electronic records before submission.

"It would be nice if you could just download information from one system into the reporting systems," Kohn says. "Typically that is not the case. A lot of databases and Excel spreadsheets get created for that purpose."

At OU Medical Center, issues involving the hybrid record arose when Joint Commission surveyors visited the facility. Some hospital units did not know where to find requested information. As a result, the facility organized in-service education sessions, and unit staff discussed what documents live where in the hybrid record, Charoonsak says.

Other quality reporting challenges are presented when compiling a specific version of a document. Whether submitting information to CMS or the Joint Commission, an HIM professional must produce a document that presents the "single source of truth," says Denise Remus, PhD, RN, chief quality officer at Tampa Bay, FL-based BayCare Health System and former senior research scientist for quality indicators at the Agency for Healthcare Research and Quality. In other words, the document submitted must be the definitive record, including date, time, and other fine details.

In some hybrid record systems, there could possibly be two documents produced by a medical procedure, one stored electronically in that department's system and one stored in a different system—possibly printed out and stored in the paper medical record. When compiling data for a quality initiative, HIM professionals must know which of those documents presents the single source of truth and meets all the quality measure requirements, Remus says.

This can be complicated to establish. "You might have one system that they use in the surgical suite to enter data and collect information," Remus says. "You might have a different system in pharmacy and in lab. So then you have to start looking at interfaces and try to find that common source of truth against the medical record."

Data abstractors can face problems figuring out where quality data lives in the hybrid environment. "If you have two disparate systems that may or may not talk to each other electronically, then you still have to figure out, 'What do I trust here when I'm trying to move into collecting data elements for those quality measures,'" Remus says.

While failing to provide accurate quality measures due to the record's makeup is troubling, even more severe problems can arise when data are mishandled during litigation.

Litigation Requests

Hybrid challenges again appear when attorneys ask for copies of medical records related to pending litigation. Though similar to the challenges presented for release of information requests, litigation requests are unique in that attorneys usually want records that date into the past, sometimes back to when facilities were using paper records. This requires HIM professionals to dig up old records and then explain why some documents are in the electronic format, and some are paper, according to Deloris Farthing, RHIA, the HIM director at Hays Medical Center in Hays, KS.

Litigation release of information requests also can include e-discovery requests, Kohn says. In addition to searching a system for electronic documents such as e-mail, HIM professionals could be called to present other electronic data including metadata. Hybrid facilities therefore must not only track which documents are paper or electronic in their health record, but also which contain metadata and other electronic information that are discoverable by attorneys, Kohn says. This means even more documents and data that need to be managed in the hybrid record. Spreadsheets that track these documents can make processing a litigation request easier, Kohn says.

At OU Medical Center, Charoonsak says fulfilling litigation requests with her hybrid record can be difficult. "That has definitely been challenging with our legal cases because we have to gather up all this information," she says. There have been cases when staffers have missed a document because it lived in a separate system away from other records, Charoonsak says.

Her department has created a cheat sheet to aid staff in finding records during litigation requests. The sheet comes in handy when attorneys request old records that are stored in off-site warehouses because it shows when documents changed formats from paper to electronic. HIM professionals can use the sheet to tell when a document was scanned into an imaging system and when the original paper document was destroyed. The sheet helps sort the hybrid record system, organizing document types not just by location but by format and file date.

Having documents spread out over different systems could damage the security and reliability of that record, Coomes says. If a hybrid record is stored in five different systems, for example, that usually means there are five different system administrators overseeing those documents. That is five different people giving security access to those systems. "The more disparate system you have out there, the more likelihood that you've got modifications and changes occurring in those systems when they shouldn't," Coomes says. An attorney could pick up on this and question the validity of the records. If strong audit trails can't back up modifications, hospitals could lose lawsuits due to a poorly run hybrid record.

Pinning Down Document Location

Charting the location of record components in a hybrid environment helps in responding to record or data requests, including release of information, quality reporting, and litigation. Here, a sample grid tracks the storage of fetal monitor strips over a 21-year period at four hospitals within a healthcare system.

Period	Flagship	Local 1	Local 2	Rural
2000–2008	Electronic Niche System–OB SaveNet	Paper	Optical Disk Archive	Electronic Niche System–Net Nurture
1993–1999	CD Archive from Previous Niche System	Microfilm	Paper	Electronic Niche System–Gyn Solutions
1985–1992	Microfilm	Roll film	Paper	Floppies

Source: Nunn, Sandra. "Applying Legal Holds to Electronic Records." Journal of AHIMA 79, no. 10 (Oct. 2008): 80.

Sorting the Record

In order to sort out which health documents live in which part of the system, many facilities like OU Medical Center have created spreadsheets and databases that list where different pieces of their medical record live. OU Medical Center also includes a sheet titled "Hybrid Record" with every paper medical record that lists all the pieces of the record that live in electronic databases. Charoonsak says, "It is kind of a reminder to us, or a flag, telling us that 'OK, we have to go to the different systems and print everything out.'"

This system works well most of the time, but is not perfect, Charoonsak admits. "We have to account for every single document," she says. "And still, sometimes we miss maybe a procedure that was done and never printed out."

OU Medical Center created its cheat sheet to detail the location of each document in the facility's various systems as more systems went electronic. The grid also describes document format and when it changed to that format. For example, the grid notes the date that staff stopped printing certain documents and began storing them solely in electronic form.

This sheet is useful especially for the staffer at OU Medical Center who assembles documents for CMS billing audits. The sheet tells the HIM professional which systems to search for which records. The aid became important after several CMS reviewers issued complaints and technical claim denials because necessary documents they requested were not being collected and sent. The issue was rooted in the hybrid record. "It started when we started putting more and more documents on the electronic side," Charoonsak says. "Within the last couple of years it has just been more and more challenging."

The creation of a record location tracker is not a one-time project. The list needs to be maintained, added to when new systems go live, and edited for changes when problems arise, Kohn says. While some HIM professionals may know in their heads where the different pieces of a record live, new employees don't have the advantage of experience. Databases are a simple way of allowing everyone in the department to know how to find a record, Kohn says.

The Record's Long Paper Tail

Even once an organization goes entirely electronic, old paper records must still be kept. Hays Medical Center uses a near-paperless medical record, but it maintains older paper records for records requests, Farthing says. All records stored before the year 2000 at Hays Medical Center are kept on microfilm, and paper records hold documents from 2000 to 2004, which is when the facility implemented its EHR and began scanning all paper records.

Some states require HIM departments to hold onto older records for years. In Tennessee, adult records must be stored for at least 10 years past a patient's last visit, and minors' records must be held for up to 21 years, Coomes says.

Since back-scanning all those documents is usually not affordable, a simple solution is maintaining a record location spreadsheet.
But as time goes on, requests for older records fade, simplifying data collection to the electronic systems, Farthing says. "We rarely have to pull records from that four years that we have on the shelf," she says. "Most everything is now in our system that anyone wants."

Waiting for the EHR

As a facility moves from a hybrid to fully electronic record, the HIM department's culture has to change with it, Charoonsak says. With each system that goes electronic, HIM professionals have to change their thinking about where those records are stored.

"It is very complicated," Charoonsak says. "I know 10 years from now we will look back and we are going to say to ourselves that we don't know how we did it."

OU Medical Center plans to go completely paperless in two years, trading the hybrid environment for the EHR. While many of the issues they face today will disappear, Charoonsak is hesitant to claim their challenges with document retrieval are over.

The EHR may mean an end to old challenges, but it will surely present new ones, Kohn says. There will probably never be a time when data location is completely problem-free. "In a 100-percent electronic environment, clearly these challenges that we are talking about today will be resolved," Kohn says. "However, new ones will always come up that we cannot predict at this time."

It is usually too expensive and complicated for a facility to implement a full EHR system at once. Therefore, HIM professionals must learn to live in the hybrid environment, Kohn says, and adapt as their electronic systems slowly build.

"We can't avoid [hybrid records]. You can't just go from a whole, 100-percent analog record to all of a sudden a 100-percent digital record," Kohn says. "So, we deal with hybrid records in the transition."

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