Winding Down the Paper Shuffle: New Roles, Responsibilities for HIM

by Gina Rollins

What does it mean for an organization's records to be "paperless"? In hospitals and clinics across the country, the paper shuffle may be winding down, but it's not quite over yet. In this article, HIM professionals in these organizations tell their stories.

The movement toward electronic medical records (EMRs) is both a boon and a burden for HIM professionals. Their work is more productive and they have a more visible, influential role in facilities that have started implementation. As well, their expertise concerning both short- and long-term ramifications of new technologies is increasingly valued. But for most, it also means keeping one foot firmly planted in the paper world, although not by choice.

"We laugh when people say, `You're so computerized.' We do have advanced medical informatics, but come see us in medical records. Our current system is not end-user friendly. The paper part wasn't in the equation when it was developed," says Mary Staub, RHIA, corporate director of health information services at Intermountain Health Care (IHC) in Salt Lake City.

An integrated delivery system with 22 hospitals and 110 clinics throughout the state of Utah and southern Idaho, IHC has a rich informatics history. Over the past two decades, it has developed state-of-the-art computer-based patient record (CPR) applications for both inpatient and ambulatory care services. The inpatient module incorporates medication alerts, transcribed text, nursing documentation, and laboratory and radiology results. The ambulatory care module enables virtually paperless encounters, from progress notes and prescription orders to remote access of patient records. IHC plans to mothball both over the next five years as it implements a clinical data repository system currently being piloted.

For all its innovation, however, IHC is not paper free. Staub estimates that even at the flagship LDS Hospital, where about 70 percent of the medical record is electronic, around 40 percent of the chart must be reproduced in hard copy because sections with discrete electronic data also include signatures. The records of the system's smaller hospitals are essentially all paper, except for laboratory and radiology test results. "Because of the different facility sizes, we go from Lexus to Volkswagen models. But the health information staff in those that are advanced are very confused. It's more difficult to operate with paper and electronic records than in just a paper world," she says.

Because of the inefficiency of maintaining either all paper or paper and electronic records, health information staffing levels at IHC facilities haven't changed much-yet. But they probably will by the time the clinical data repository system is fully implemented in 2006. "I'll be disappointed if we don't see a reduction by then," says Staub.

While operating in both the paper and electronic realms, Staub is addressing broader technology-related issues, like how to make physician-patient e-mail part of the medical record and determining the best way to note errors made in electronic progress notes. She also is actively involved in planning and implementing the new system. "I think about it all the time," she says.

Hi-tech but Living in a Paper World

Catherine Morgan, RHIA, also knows the travails of living simultaneously in electronic and paper worlds. "Our system is beautiful. It's what I've dreamed of. But by law, we have to maintain paper charts, so it defeats many of the purposes of having an electronic record. It makes us do things that are time consuming and unnecessary, and it's frustrating," she reports. Morgan is chief of health information management systems at the Louis Stokes Veterans Administration (VA) Medical Center in Cleveland.

The Veterans Health Administration has installed a state-of-the-art CPR system throughout its 173 medical centers and ambulatory care network. (The Louis Stokes facility has been operating its version since 1995.) Based on discrete data, the system has an order entry component and provides alerts for adverse events, preventive medicine, and other clinical reminders. Progress notes (for all clinicians), histories and physicals, and consultation reports are all electronic. There are very few noncomputerized components, most notably documents with patient signatures, like consent-for-treatment forms and advance directives.

Yet, because federal law requires paper record storage for 75 years, VA health information departments are still mired in paper. Staff members must print complete copies of all charts, a process that would be easier-if not less redundant-if it could be done at one time. But again, regulations come into play. "It's not like pushing a button and printing the entire chart. Some [of the printing] has to be done when the person is in-house or upon discharge," says Morgan.

The CPR has made it easier for HIM specialists to analyze charts and identify deficiencies, but thanks to the paper record requirement, the department has about the same number of full-time equivalents (FTEs) that a similar-sized facility with less automation would have, Morgan estimates.

More importantly, however, the CPR has significantly enhanced continuity of care, particularly for retired veterans who have more than one residence. With security clearance, providers within the VA system can instantly access complete electronic records from other facilities. At some point, they also receive hard-copy records.

According to Morgan, the VA is working to eliminate the paper storage requirement. In the meantime, some centers are moving even further into the electronic realm, experimenting with electronic signature technology for patients.

To Scan or Not to Scan?

At Partners HealthCare, an integrated delivery system located in Boston, there is a gentle tension between the short-term objective of eliminating more paper quickly and the strategic goal of having records provide better information. Particularly at its academic medical centers-Massachusetts General Hospital and Brigham and Women's Hospital-Partners has advanced order entry and ambulatory care applications, but progress notes are still pen-and-paper endeavors.

As it has begun to pilot other electronic elements like histories and physicals and medication administration records, there is a growing impetus to make progress notes available online. "Some people are urging that we scan them, but we're trying to find other ways to make them electronic. We don't believe in computerizing paper documents, but rather in designing a system for clinicians that provides alerts and other interactions that improve care," explains Karen G. Grant, RHIA, corporate director of health information systems.

The CPR applications at Massachusetts General Hospital and Brigham and Women's Hospital have made the HIM workflow more automated, especially the chart analysis function. While continuing to implement CPR applications, Partners is exploring other technologies, like creating a mechanism for patients to request and receive information online.

Computerization has also led to staff reductions: Brigham and Women's Hospital now employs about 20 fewer FTEs. But it has also made coding from home offices possible for some employees, an important retention factor in a tight labor market, according to Grant. The less automated community hospitals in the Partners system have not yet realized similar staffing and workflow efficiencies.

For Partners, the benefit of advanced applications was worth having to live a little longer with paper, but other organizations have embraced scanning as a good paper-to-CPR bridge. Among them is St. Vincent Hospitals and Health Services in Indianapolis. "A document imaging system isn't a true EMR system, but it brings workflow efficiencies, improves access, and gets the staff accustomed to working in an automated environment. If we had waited for a live medical record, we would be drowning in paper today," says Londa Bechert, RHIA, director of health information services at St. Vincent.

St. Vincent launched its document imaging system in 1994 and has since been implementing various CPR applications. Installation of a computerized nursing documentation module was completed earlier this year, and a physician record completion component, which allows for online electronic signature, is also operational. Knowledge-based order entry and medication administration record modules should be implemented within the next year.

Explosive growth in ambulatory care was a major factor in the decision to go with scanning. "We were in a panic over the increasing volume of ambulatory care records. Plus, they trickled in over days and weeks, and we were handling them four or five times before everything was in the medical record and it was closed. We also wanted to improve access to information for caregivers. We realized what would come if we didn't change, and I think we did it just in time," says Bechert.

The technology led to closure of the five-person medical record department at the system's smaller hospital. Now, one employee stationed there gathers documents for transport to St. Vincent Hospital, where they are scanned. "We don't have any remote scanning. We felt that if the satellites did it, it would be a deferred activity and it wouldn't be done within our required 24-hour time frame," Bechert explains.

Other HIM-related changes include simultaneous, rather than sequential, activities like chart analysis and coding and the ability to shift workflow priorities. For example, during coding, records may be prioritized by service code, date, or dollar value. The system also facilitates productivity tracking.

Children's Hospital of Philadelphia (CHOP) also saw imaging technology as a stepping stone to more advanced applications. "We felt that it would make a smoother paper-to-electronic transition and that it would be easier to sell, offering a little more comfort and security to our providers. Also, with a discrete data system, you have to have one vendor who meets all needs, and there's not a system that does that today. Our approach historically has been to use multiple systems and go for the `best of breed,'" explains Mike Barbella, MS, RHIA, director of health information management.

In 2000, CHOP dove wholeheartedly into imaging, and it now scans about 50,000 pages each day, a volume Barbella expects to double by the end of the year. In contrast to St. Vincent, it plans to use remote scanning, probably at regional hubs. It operates 10 specialty centers in three states, and the logistics of transporting documents through a major metropolitan area and meeting its commitment to scan them all within 24 hours are simply too daunting to do otherwise, according to Barbella.

About 30 percent of the patient record at CHOP is now electronic, a figure that will jump to about 50 percent this fall, when a nursing documentation module will be fully implemented. Five other CPR projects are in various stages of completion. Document imaging and a CPR system for ambulatory care services are on parallel implementation tracks, with four specialties going online every eight weeks, a process expected to take at least two and a half years. Ultimately, outpatient encounters for CHOP-affiliated physicians will be almost completely paperless.

CHOP also is addressing some of the information needs of community pediatricians. Via a secured Internet connection, they can access discharge notes involving patients hospitalized at CHOP. Down the road, more extensive information will be made available, but only after the institution further analyzes how it can best balance information, privacy, and security issues. A pilot project involving wireless personal digital assistants has been curtailed because of security concerns, and Barbella is further defining doctor-to-doctor e-mail standards. "Long ago, our physicians and community pediatricians began e-mailing clinical information back and forth. Our policy was not to do so, but it was naive of us to think they'd all talk to each other over the phone," he explains.

CHOP has more than doubled its HIM staff since starting down the "less paper" road, going from 35 FTEs six years ago to about 80 FTEs today. Within the next 18 months, the staff may double again to around 160 FTEs. From the outset, Barbella promised only long-term human resource efficiencies, but in the meantime other benefits justify the investment. "Charts are not lost now, and there is multiple access [to records]. The accuracy of patient records has also improved. Now, we can abstract and analyze more data, and we have more time to collect data and participate in quality studies. Our chart delinquency rate has also improved. It's now less than 30 percent, when for many years it was over 50 percent," he says.

Getting Medical Practices in on the Act

When it comes to going paperless, hospitals are light years ahead of physicians. The 2001 Healthcare Information and Management Systems Society leadership survey found that 13 percent of responding hospitals and health systems had a fully operational CPR system, 29 percent had begun installing one, and 24 percent had plans to do so.1 In contrast, a survey by Deloitte Research published in February 2001 found that EMR use by physicians ranged from 7 percent to 13 percent.2

Given how few practices have gone paperless today, Primary Care Partners, PC, was truly pioneering when it installed an EMR system in 1993. "We had been interested in EMR for some time, but what forced the issue was that we were running out

of space for charts and additional staff and faced a $200,000 investment in additional office space. We felt the EMR added better value for the future," says Gregg Omura, MD, partner in the Grand Junction, CO-based family practice.

Except for patient-completed legal documents like consent forms and living wills, the entire care encounter at Primary is accomplished via EMR. The practice files consent forms alphabetically in a three-ring binder rather than creating individual patient charts. The year after it implemented the system, Partners reduced its front-office staff by 3.5 FTEs and cut its gross overhead by 6 percent.

Failing fax machines, rising transcription expenses, and faltering memories prompted Southern Orange County Pediatric Associates to implement an EMR system three years ago. When patients were being seen in different offices, "we were burning up faxes [to send the last two pages of progress notes], but sometimes between the faxes, couriers, and the transcription service, the charts were unavailable. We were relying on people's memories and we were concerned we were going to miss something. Also, we were spending about $7,000 a month on transcription, and only saw it increasing," explains Vickie Jackson, administrator of the three-office practice based in Lake Forest, CA.

After investing $300,000, the practice eliminated its transcription expense entirely, decreased office-to-office courier trips from twice daily to twice weekly, reduced by .5 FTE the clinical support staff per provider, and reduced paper and chart supply costs. It did not eliminate administrative positions, although responsibilities have shifted. For example, two people used to handle medical records in the main office. Now, only one does. The other divides her time between reception and customer service responsibilities. The major benefit, however, is that the practice "accomplishes better care more consistently. The EMR makes you do things you need to do for charting, so you won't short change patients in terms of care," says Jackson.

The Washington ENT Group, a newly formed three-physician practice in Washington, DC, opened its doors in March with EMR systems in place. The opportunity to start with a clean slate, better support patient care, and relieve the doctors' administrative burdens convinced them an EMR was the way to go. The practice partners spent hundreds of hours analyzing the ins and outs of an ideal patient encounter and identifying the applications that would best support it.

"At first we weren't confident that an electronic system would work, and we set it aside. It was only after looking at other options that we began to develop confidence and began to consider that an EMR was the way to go," says Barth Doroshuk, chief executive officer. The EMR, really a cluster of applications that interface, "will pay for itself overnight," especially as the practice expands, according to Doroshuk. Plans to add two more physicians are in the works.

The practice has no transcription expense, employs about half the support staff required in a nonautomated environment, and submits about 90 percent of its claims electronically, a major factor in speeding up cash flow. The best part, according to Doroshuk, is that the system is still revealing itself. "We have yet to recognize all its capabilities. It's like standing in a fresh snow field and realizing you've walked a hundred yards and then seeing there's another 100 to go."

Leading the Charge

Whether working in a hospital or a medical practice, in a paper-driven or mostly electronic environment, HIM professionals have an important role in easing the paper-to-electronic transition.

Patience is the order of the day, as no matter how well planned an implementation may be, problems are bound to crop up, and the process will take longer than expected. "There's no quick fix. You have to think through methodically how to move from a paper world to an electronic one, and it won't happen as fast as you want. This takes a great deal of time," says Staub.

Also, expect to work with multiple applications and vendors. "You have to really research and put all the components together," says Doroshuk. As part of that, spell out vendor responsibilities up front to avoid frustration and delay down the road. "At first, our nursing documentation and record systems didn't interface, so the nurses had to print out all their electronic documentation. It happened because of a miscommunication between the vendors, and it took 11 months to correct," Bechert reports.

The move to CPR systems also involves the input of many from within. Whether it's in a document standardization work group or a medical informatics planning committee, do not miss an opportunity to be involved. "We can begin to act more as consultants about the clinically related decisions that need to be made. But if we're not in the loop, the product will not be as good as it could be," advises Grant.

Physicians in particular may be skeptical about the paper-to-electronic transition. But after experiencing the benefits, even the most reticent become ardent supporters. Sell the advantages early on and include them in pilot projects to move the change along.

Preconversion housekeeping is another vital HIM responsibility. "Whether you're going to an EMR or an imaging system, make sure the master patient index is cleaned up, and reassess your utilization, security, and access parameters. Standardizing documents also benefits both [applications] by forcing agreement on necessary information and eliminating redundant fields," says Bechert.

Finally, advocate for functionality over exciting bells and whistles. "Digital x-rays might be nice, but do you really need it? It's probably not worth the trouble if you're not really going to make use of it," advises Omura.

Having so many opportunities to shape the electronic world order makes the paper shuffle go by like a blip on a screen-almost!

Notes

1. "Trends in Healthcare Information Technology." 12th Annual HIMSS Leadership Survey, March 2001.
2. "Physicians and the Internet: Taking the Pulse." *Hospitals and Health Networks* 75, no. 2 (2001): insert.

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