Every day, hospitals face a tremendous irony: using the latest technology to diagnose and care for patients and then using the most archaic modes—filling out forms manually, sending faxes, copying and filing millions of paper forms each year—to get reimbursed.

The paperwork burden in hospitals is obvious. Unlike just about every other industry, health care still relies on an old-fashioned paper/fax/phone transaction process. That process is expensive: it costs nearly $250 billion to process 30 billion healthcare transactions each year. Plus, the average ratio of staff handling paperwork to doctors can be as high as 1:1. The rules and instructions for Medicare and Medicaid are so unwieldy that they are three times the size of the IRS code. According to one industry study, 86 percent of mistakes made in the healthcare industry are administrative in nature.¹

So, it’s not much of a surprise that hospitals have long been exploring ways to minimize that paperwork through document management systems. The right system can decrease claims denials, decrease accounts receivable, improve patient and employee satisfaction, save storage fees, enhance patient care, and cut the medical records coding backlog. With all of those benefits, why haven’t all hospitals implemented a document management system?

### Identifying the Challenges

A sound document strategy can reduce the risk of administrative and document-related errors, eliminate points of exposure in healthcare organizations, and improve patient care. However, the challenges organizations face in assessing and auditing internal processes and deciding on the right strategies can be immense.

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First, while healthcare providers would agree that the money spent on healthcare paperwork could be better spent on improving quality of care, financing is perceived as a huge barrier. Although hospitals may fund plans for their information technology goals, document management may not seem to fall in that budget or in the budget of any particular area within hospital operations. So any investments in document management are seen as unplanned expenses.

Second, until about five years ago, any healthcare provider considering an answer to paperwork burdens had to rely on individual, niche-oriented solutions from their current information technology providers. Those products weren’t usually compatible with existing software, nor did they match the work flow of administrative staff and physicians. They might have even required a huge investment in infrastructure. So they were expensive in the sense that they didn’t really accomplish the goal of managing documents.

But several things are happening that are outweighing those challenges and causing more hospitals to adopt a document management system. First is the growing multimedia nature of documents. Important information is flowing into hospitals in the form of e-mails, faxes, and electronic data. The tangibility of paper necessitated one way of thinking about organization, storage, and access. But now hospitals are being forced to rethink and possibly improve the management of documents, given the reality that many documents are electronic. As such, most hospitals are seeing that physical location of documents does not matter as much. So how should documents be identified? Where should they be located? By whom and when should they be accessed? Such questions have inspired a need for more technological solutions.

HIPAA has also become a factor. Document management vendors are creating systems that assist in compliance efforts related to HIPAA’s complicated privacy and security rules and regulations—offering more private and secure solutions than a paper-driven environment. Systems can help assist in meeting regulatory reporting compliance for not only HIPAA, but also CMS, Joint Commission, and collection histories. Investing in an enterprisewide document management system can minimize unauthorized access of patient information—one of the greatest privacy and security concerns hospitals face.

What Does Document Management Really Mean?

Very recently, a growing number of hospitals have been adopting document management systems as a solution. The phrase “document management system” has come to mean a broad array of possibilities. The concept has come a long way since just five years ago when it typically involved only scanning and storing documents—often using common office equipment such as photocopiers that have scanning capabilities. Today, document management systems do a great deal more.

Document management systems offer several ways to capture and store electronic streams of data. Using a document management technology such as Computer Output to Laser Disk (COLD), organizations can automatically store, without scanning, print streams from their billing systems, such as claims, patient statements, close reports, and aging reports. These are stored as documents in the document management systems, alleviating the printing of reams of green-bar reports. Once captured, COLD documents such as claims can be automatically matched to their corresponding documents, such as explanation of benefits (EOBs) and charge tickets.

Document management technologies now have the ability to handle electronic data interchange (EDI) data streams, allowing HIPAA transaction files to be stored and managed in your document management
system as well. Outbound claim files in the HIPAA format and inbound payments/remittance advices can be stored as part of a patient’s accounting folder, each transaction becoming its own patient-specific document.

In addition to the capture and storage of documents, an appropriate document management solution can manage the entire life cycle of those documents, including work flow and distribution. Work flow technology provides business process management tools that can reduce the amount of time it normally takes to perform manual exception processes, such as managing denials and secondary billing.

There is tremendous potential for increasing the efficiency of hospital workers and drastically reducing the risk of medical errors without changing how healthcare professionals conduct business or provide care. Systemwide solutions can be customized for a provider’s specific needs and budget, and can help realize such benefits as tightening the revenue cycle.

**Tightening Billing Process and Revenue Cycle**

The MetroHealth System in Cleveland is implementing a document management system this summer. One of several manual processes that will be automated, and thus save time in the revenue cycle, deals with the central file storage of remittance advices, usually located far from the billing department workstations. Right now, when the billing department needs to access a remittance advice for a particular payer, someone has to walk down the hall, pull the remittance advice, thumb to the appropriate page of the advice (which could be 100 pages long), make a copy of it, perhaps stop for a drink of water, refile the original, and then go back to his or her desk and do the follow-up work on that claim. According to Brian Quinn of MetroHealth, “By having every patient’s insurance, driver’s license, and remittance advice information accessible on the desktop for immediate and simultaneous access, staff downtime will be substantially reduced, allowing follow-up staff to be more productive.” They anticipate this will contribute to improvements in days revenue outstanding (DRO) as well as cash flow.

St. Francis Healthcare Services in Wilmington, Del., a member of the Catholic Health East network, is using its document imaging system to streamline the work flow with its billing service. Its imaging system is web-based, allowing contracted vendors, such as its billing service, to view necessary documents to perform their jobs. According to Lauren Delpino, director of access, “From the hospital’s view, the imaging system has reduced the number of customer service inquiries that cannot be handled by our billing service.” With their system, their vendors can go online and actually view the emergency department records to handle denied claims.

According to Bernard Citerone, vice president of finance and CFO of St. Francis, “It basically allows people to look at anything they would have access to before, but allows us to spend less time on the phone either with
patients or the billing service. The billing service and other vendors can look up the information themselves and deal with the situation.” Adds Delpino, “From an appeals standpoint, we can address denied claims more quickly. We no longer have to wait for a courier or messenger to shuttle documents to and from the billing service, let alone track down hard copies in filing cabinets. We’ve also considerably reduced the amount of paperwork that we had to deal with.”

St. Francis’s document imaging system has been beneficial on several other billing fronts. “It works for us because our physicians do their own professional billing, so this allows them access to a variety of documents they would need, minus the patient’s record,” says Delpino. “But the way we’ve set the system up, physicians can look at outpatient billing and see actual copies of insurance cards, demographic sheets, and documents of that nature.”

Their document management system has also minimized the repercussions of human error. If a clerk has erroneously keyed in or transposed numbers from a policy and the claim comes back denied, the billing company can easily view the claim online and make those adjustments without sending it back to the hospital to redo. Even in-house billing staff loves the document management system—they can see all the necessary documents right from their workstation and resolve billing complaints much more quickly.

St. Francis Healthcare Services implemented its imaging system in October 2003 for its emergency department, but it will be expanded to cover inpatient services later in 2004. Additionally, once the PCs in the access area are updated, every patient who walks into the hospital will have his or her face sheet and insurance cards scanned and stored electronically.

Shawnee Mission Physicians Group, a 45-physician, multispecialty medical group in Kansas City, Kan., has just implemented a document imaging system. According to Les Jebson, chief operating officer, “Our research shows that we will notice a benefit when it comes to accounts receivable and percentage of denials. We also hope to see better work flow throughout the practice.” Shawnee’s first goal is to have all key insurance data, such as the insurance card and billing sheets, readily accessible to any employee of the physician practice who has authorization. “I believe the growth of scanning documents from forms to insurance cards to billing sheets in the medical practice is the most cost-efficient and optimal revenue cycle model,” says Jebson.

**Improving Customer Service Work Flow**

Three years ago, before Allina Hospitals & Clinics in Minneapolis adopted a document imaging system, the following scenario was pretty typical: A call would come into the customer service department from a patient asking why they just got a bill for $450. A customer service representative would ask for the patient’s name and other demographic information and would then have to look up their bill manually and call the patient back with a reply. One or two business days may have passed before they got back in touch with a patient. “This was incredibly frustrating on our part, and on the part of the patient,” according to Mike Taylor, co-director of the Consolidated Business Office for Allina. Plus, “the average speed of answer at the contact center was over two minutes, which was terrible.”

So Allina purchased a document imaging system where employees would scan the explanation of benefits and post and index it to the patient’s account for the amount of the payment. If a patient has an appointment in the morning and calls the customer service representative in the afternoon, customer service can now immediately access the EOB and resolve the patient’s question while on the phone with him or her. “Now we’ve set a service level goal that 70 percent of the calls would be answered
in less than 40 seconds,” says Taylor. “Today we have an average speed of answer of around 27 to 28 seconds. Our document management system improved patient satisfaction and employee satisfaction, because they now have the tools to do their job.”

Patient Registration Work Flow

Document management systems can also have benefits for front-office work flow. For example, at Advocate Health Care in Oak Brook, Ill., the integrated imaging system starts at patient registration. An access employee will create an electronic patient folder and electronically enter a patient’s demographic and insurance information—information that is customarily gathered from a patient face sheet. Documents such as insurance cards, driver’s licenses, and healthcare consent forms are scanned, and those scanned files are placed in the patient’s electronic folder. From then on, every time a patient visits Advocate, that visit (such as any additions to the medical record, test results, claims) is captured and added to his or her electronic folder.

The document management system continues to the back office, where EOB forms from payers are scanned via the imaging system, along with any other documents generated, such as letters from patients and emergency department medical records.

According to Terry McCarthy, director of patient accounts for Advocate Health Care, “We’ve seen tremendous benefits for the front and back office. Although we always have to ask patients about their insurance, because people change insurance so much, if the patient’s insurance hasn’t changed, they proceed more quickly to patient care. It’s streamlined the amount of time front-desk employees have to spend with patients.”

Advocate Health Care provides initial strategy, planning, and funding systemwide, but each hospital within the network is responsible for the rollout in its facility, including any additional funding needed to tailor or enhance the functionality for its needs.

Expanding Capabilities for Medical Records

Many hospitals have a hard time finding enough good coding professionals to fully staff their medical records departments. They often have to look to third-party vendors or offer coding professionals incentives such as work-at-home schedules. Having medical records scanned and available in a web-based format allows healthcare providers to take advantage of those options.

Having medical records scanned can also minimize the creation of duplicate patient records as well as eliminate duplicate physical charts for patients, which has a direct positive impact on patient safety. It can also eliminate ordering duplicate tests and procedures that, if performed twice within a certain number of days, may not be paid by some payers. Patient safety is also enhanced by ready access to previous data, particularly in emergency situations. A document imaging system can allow for such vital information as Do Not Resuscitate forms to be accessible immediately by medical staff. Also, if charts are scanned immediately after a patient visit, they are available quickly in follow-up situations.

Document management systems with specific work flow tools can also offer significant efficiencies in the actual coding process. At times, chart information is pushed to hospital coders in an incomplete state, with necessary documents missing and coders not aware of it until they spend time working a chart. Work flow tools can flag incomplete charts before they get to the coding stage. They can also provide a level of reporting related to coding productivity not typically possible through manual processes.
Finally, the electronic aspect of document management systems alone can speed up the coding process. According to Quinn, “We anticipate that our system will accelerate the coding process for the emergency department by a couple of days and end the possibility of charts getting routed to medical records before coders have completed their review.” This is because MetroHealth’s emergency department requires that hard copy charts remain in the emergency department for 24 hours because patients often return. “So we can’t get those charts to the coding area for a minimum of 24 hours. Right now there is a lot of time and effort spent moving charts between the emergency department, our coders, and the medical records department,” says Quinn.

**Bye, Bye Paper Storage**

In addition to improving work flow, healthcare providers who have implemented some type of document management system have seen a dramatic decrease in paper storage fees. Once paper documents are scanned, they are destroyed. According to Delpino, “We can now electronically archive records. But before, we had to outsource to an outside storage facility and incur storage fees.”

According to Quinn at MetroHealth, “We anticipate that we will not need all of the storage space that we currently have. The back office is moving to a new facility, and we realized that we would need 3,000 fewer square feet of space for files because of our new document system. The ability to avoid construction costs for storage space supplemented our favorable ROI projections for this project.”

### Choosing the Right System

MetroHealth went through a formal RFP process that took about a year to find the right vendor for their needs and specifications. “We looked at features, functionality, and price as the main criteria in selection. Also high on our list was flexibility, so that we could plan for future growth,” says Quinn.

When considering vendors for a document management system, keep these points in mind:

- **Decide that you want to invest in a system only once.** Vendors should be asked how they can help you achieve the goal of not having to purchase technology again and again.

- **Think of integration as a key issue.** The document management system you choose needs to integrate seamlessly with the core software your facility uses on a daily basis. That way employees can work in an environment they’re comfortable with.

- **Consider scalability of functionality.** Look for a system that is more than just scan-and-store, and that has the ability to grow with you as your needs grow. For example, future plans may include document management for your medical records. If so, make sure the document management system you
choose has a broad range of capabilities and functions, even if you don’t plan to use them right away. Ask if the system can be easily used in multiple departments, including operational departments such as human resources, accounts payable, or facilities management.

• **Look for web-based storage and management.** It will create a single point of access for all healthcare documents and thus improve document accuracy by minimizing the opportunity for human error. It also provides an effective method for distributing documents. In addition, web-based storage and management offer on-demand printing and forms management, which allow for timely form revision as requirements change and help standardize data output and presentation.

• **Inquire about support and maintenance.** Ask a vendor how they plan on handling upgrades. What happens for you as a client in terms of financing and compatibility when there are new versions of the document management system?

**Future Plans**

Document management systems that affect the revenue cycle are often seen as the first step toward a wider rollout of electronic capabilities. Directly introducing a document management solution in one area of a hospital often leads to a desire to apply that technology in other areas (such as medical records and back office). This happens most smoothly when a hospital chooses to initially invest in an infrastructure that will allow them to do this, instead of buying IT modules independently that may not integrate with one another or your existing IT infrastructure in the long run. A lack of planning here could lead to the need to support disparate document management systems in each functional area of the organization.

In addition, when benefits are seen in the revenue cycle area, hospitals become emboldened to apply technology to other areas of patient care. For Jebson and the Shawnee Mission Physicians Group, the next step is to have physicians fill out encounter forms via an electronic tablet while seeing their patients. To eliminate any learning curves, the electronic forms will look exactly like the paper forms that physicians are currently using.

Advocate Health Care has seen the benefits of their document imaging system and has added new functionality, including an integrated insurance verification system that allows those in the registration area to immediately verify a patient’s insurance and the type of plan he or she may have. The system then identifies all the forms needed to bill that payer, thereby saving valuable time later at the claims stage. The system includes not only payment terms for managed care contracts, but also administrative terms, such as precertification.

Other healthcare providers have implemented a document management system knowing that they had plans to implement an electronic health record. According to McCarthy at Advocate, “Our systemwide plan is to have an automated medical record system, and I know some hospitals in the system are closer to the reality than others. While we’re moving in that direction, the patient registration and accounting areas are talking with the medical records areas about technology to ensure integration when that time comes.”

Hospitals have long hoped for the advantages of an electronic data environment but have not had the tools to accomplish them—until now. The reality is that document management is making data available at a keystroke. Its effect on work flow is its greatest benefit. It can bring a greater efficiency to the process that hospitals would never have been able to achieve in a paper world.
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Hyland Software, Inc. is a leading electronic document management solutions provider to the healthcare industry. Hyland develops OnBase, enterprise software that combines the full spectrum of document management technologies in a single, web-enabled application. Organizations utilize OnBase Healthcare Solutions to manage documents and processes throughout the revenue cycle, including patient accounting, registration, medical coding as well as denials management and secondary billing, resulting in reduced days in A/R and increased cash flow. In addition, OnBase is a scaleable, configurable solution that can be used across the enterprise to create efficiencies in areas such as medical records, credentialing, accounts payable, and human resources. OnBase Healthcare Solutions reduce costs, streamline operations, assist with compliance, and ultimately, increase overall patient satisfaction. For more information, please visit www.onbase.com/healthcare.