



Vol. 17 • Issue 1 • Page 19

2007: The Year of Electronic Document Management

New Web-based technology options, innovative payment plans and advances in optical character recognition are just a few of the trends in EDMS today.

By Aaron Brandwein and Beth Friedman, RHIT

Electronic document management systems (EDMS) were introduced to HIM in the 1980s. Since that time, they've been used mostly by large hospitals with hefty budgets and big IT departments. Twenty years later, all that is changing. New Web-based technology options, innovative payment plans and advances in optical character recognition are just a few of the trends in EDMS today.

These changes and others are helping HIM departments migrate toward virtual, paperless environments. Even small critical access hospitals, the faster growing segment of provider settings, can now move toward EHRs via document imaging. Additionally, EDMS technology is receiving more attention from chief financial officers (CFOs) and chief information officers (CIOs) as they move to streamline revenue cycle processes and implement EHRs.

In 2007, more EDMS will be implemented than ever before. This article highlights some of the latest trends, opportunities and predictions for EDMS technology in health care. We've also included some tips on how to determine if today's opportunities and technology advances can open the EDMS door for you!

### **New Directions: Small Is Big**

Webster's Dictionary defines a trend as "a general inclination or tendency; a direction of movement: COURSE." The first and foremost course that EDMS technology will take in 2007 is toward smaller organizations. Not-so-big hospitals, including critical access hospitals and clinics, have already begun using EDMS technology and more are expected to do so in 2007. In fact, a recent report on the status of HIT in critical access hospitals (CAHs) states that 21 percent use some type of EHR and three quarters of those surveyed have IT purchasing included in their overall budget.<sup>1</sup> The same report mentions that 98 percent of CAHs have high-speed Internet access.

The primary driver for not-so-big hospitals' migration toward EDMS is the combination of reliable Internet access, a general push toward the EHR and a plethora of Web-based applications. Additionally, the ability to offer per-chart pricing makes today's EDMS solutions more affordable than their predecessors.

Various terms are used to describe a Web-based EDMS including hosted, application service provider (ASP)

and software as a service. While each term has its own specific nuances and differences, the benefits are the same. Instead of spending large amounts of capital dollars up-front, organizations can pay for their EDMS on a per-chart basis. In most cases, the vendor provides hardware, software and system support as part of the per-chart or monthly fee. Operational, instead of capital, budgets are used to fund the EDMS and HIM departments pay-as-they-go. Finally, systems are easier to implement and maintain because the vendor does much of the work.

The downside of a Web-based EDMS is that systems are Internet-dependent. If Internet connections are down, users are unable to view records, electronically sign charts or perform other basic EDMS functions. Therefore, reliable, dependable Internet access is necessary.

At North Valley Hospital in Whitefish, MT, a 25-bed CAH, Traci Waugh, RHIA, director of health information and compliance, needed an EDMS that would help with storage issues, interface with the existing Meditech® hospital information system and provide realistic up-front costs. She chose HealthPort® from SDS®, Alpharetta, GA. "Today's document management systems are manageable, even if you are a small hospital. The advantages you gain when records are scanned, archived and available electronically are tremendous," stated Waugh. Her staff performs several jobs so the efficiencies gained from HealthPort frees up time for other duties and projects. Waugh will be sharing this and other tips in her monthly online column titled, "Diary of an EDMS Implementation," which begins this week at [www.advanceweb.com/him](http://www.advanceweb.com/him).

For smaller hospitals like North Valley, new options in technology and pricing are paving the way for EDMS technology. Workflow and optical character recognition (OCR) technologies are two other core EDMS tools that are driving adoption both within and outside of HIM departments.

## Managers Turn to EDMS

Because revenue cycle improvement initiatives involve a wide variety of hospital departments and functions, there are many areas for EDMS technology to lend a hand. Workflow is a component technology of an EDMS and as such, can help automate many of the inter- and intra-departmental hand-offs so prevalent in scheduling, HIM, billing, patient accounts and other revenue cycle departments. According to HealthBlueprints Inc., a revenue cycle consulting firm in Alpharetta, GA, the primary benefits of an EDMS within the revenue cycle include:

- expediting overall cash flow,
- providing better tracking and monitoring of reimbursement opportunities,
- reducing paper management costs,
- minimizing data entry errors, and
- allowing payer requests for medical record information to be processed by business office (instead of HIM) staff expediting payment and reducing denied claims.

These improvements are fully realized when two steps occur: 1) workflow technology tools within the EDMS are coupled with departmental applications; and 2) when HIM departments grant revenue cycle departments secure access to medical records through the EDMS. By accessing information themselves instead of

requesting records from HIM, delays are avoided, paperwork is reduced and the entire process is streamlined.

Finally, EDMS technology should provide the ability to grant or deny specific users access to medical records, preferably at the document level, in accordance with minimally necessary guidelines. For example, scheduling staff may only have the ability to access core demographic documents (such as scanned driver's licenses) while an accounts receivable manager may be granted rights to view the entire medical record. As more departments within the revenue cycle are given electronic access to medical records, greater efficiencies will be realized.

## **OCR Yields Return**

One technology making a huge impact on business office functions and hastening return on investment for EDMS implementations is OCR. Recent advances in OCR make this technology more accurate, efficient and valuable than ever before, especially for cash posting. EDMS with OCR allows cash posting by exception, which saves a tremendous amount of time for business office staff.

Explanation of Benefits (EOB) statements must be separated by patient and encounter for proper processing. Because these statements are received in a single file with multiple patients and encounters included, manual parsing and posting must be performed. This process is labor intensive and prone to data entry errors. OCR technology searches the text document and finds exact words, phrases and other elements. From there, the technology parses and posts information automatically and notifies staff if there is a problem or discrepancy. In addition to cash posting by exception, OCR can assist with finding specific items within financial documents for organizational reporting and revenue cycle monitoring as mentioned above.

## **Complimentary Technology**

Ever since computerized patient records and clinical data repositories were introduced in the early 1990s, CIOs have debated the need for document management systems when computerized or electronic records are in place. Fifteen years later, many CIOs realize they need both—EHRs to support clinical process and document management systems to support legal processes and requirements. Today, EDMS is a complimentary, not competing, technology. In fact, most organizations implement an EDMS prior to going live with a complete EHR.

Never before has this aspect of an EDMS been emphasized more than today. In fact, the American Health Information Management Association (AHIMA) recently declared 2007 the year of the legal health record and will be launching a task force to establish new standards. Additionally, the Certification Commission for Health Information Technology (CCHIT) is expected to include legal health record criteria in their EHR certification requirements.

Clinical systems, computerized physician order entry applications and electronic documentation applications all generate discrete clinical information that must be incorporated into the legal health record. Information must be authentic, complete and reproducible. These attributes are easily demonstrated in an EDMS, but not always available in computerized or EHR systems.

Finally, according to AHIMA's 2003 practice brief focused on this topic, the goal of an EDMS is "not only to eliminate paper, but also to manage all the organization's documents—computer-generated and paper-based." By coupling EDMS technology with existing systems within and outside of HIM, organizations are realizing

greater value from their technology investment.

Similar to how business offices and patient accounting are incorporating document management tools, other departments such as fiscal services, human resources, administration and medical staff are benefiting from systems originally used only by HIM. "The ability for our EDMS to expand into other departments backed by excellent customer service was a key factor in our system selection," mentioned Waugh. In her upcoming *ADVANCE* online column, Waugh will provide tips and share lessons learned in coupling EDMS with other departmental applications.

## Back-Scanning Gets Easier

In the 1990s and early 2000s, many organizations implementing an EDMS elected to forego back-scanning of historical medical records and simply start with electronic documents on a go-forward basis. Past discharges were kept in paper format and users were trained to look for medical records in the EDMS starting on a specific date. This was done for several reasons including cost, time and space. Today's trend is the reverse.

Today there is a multitude of outsourced scanning services. In addition, scanning equipment and indexing technology is faster, more reliable and less expensive. Finally, most scanning services will perform the function off-site, which frees up space and gives HIM departments more room for remodeling and re-engineering.

Coffeyville (KS) Regional Medical Center (CRMC) is a 108-bed acute care facility also implementing HealthPort from SDS. Citizen owned and not-for-profit, the organization recently was named a Top 100 Hospital in the Solucient® Performance Improvement Leaders Program. "SDS offered to scan the backlog as an off-site project, over time. Old paper records are sent off-site, which saves space and staffing costs for our department," states Bryant Stafford, RHIA, director of HIM and compliance officer at CRMC.

For Stafford, the biggest advantage is the creation of a historical archive of records and the ability for users to look up prior admissions as their first step in using the new system. "This step will provide users with the system experience they will need when real-time functions such as electronic signature, online chart completion and remote coding are implemented," Stafford concluded.

Within the HIM profession, much has been written and shared about EDMS technology. As you evaluate whether an EDMS is in your future, consider the following factors:

- To save money and resources is Web-based EDMS technology an option for you?
- Will other departments (specifically those involved in revenue cycle) benefit?
- Should an EDMS be part of your organization's overall EHR strategy?

## References

1. Flex Monitoring Team. "The Current Status of Health Information Technology Use in CAHs," May 2006. Available online at: [www.flexmonitoring.org](http://www.flexmonitoring.org). Produced in collaboration with the Technical Assistance and Services Center at the Rural Health Resource Center.

## 2. AHIMA e-HIM® Work Group on Electronic Document Management as a Component of EHR (October 2003).

*Aaron Brandwein is the divisional vice president for SDS's HealthPort solutions and can be reached at [abrandwein@sdshealth.com](mailto:abrandwein@sdshealth.com). Beth Friedman is a registered health information technician and holds a bachelor's degree in health care administration. She is the president of The Friedman Marketing Group, a consulting firm that helps HIM vendors position, market and improve their solutions. She can be reached at [beth@tfmgcom.com](mailto:beth@tfmgcom.com).*

### Related Table