Field Tested: Electronic Signatures At Work

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Improved relations between physicians and HIM professionals, a shorter and faster chart completion process, and decreased chart deficiencies are just a few of the benefits Zale Lipshy University Hospital has enjoyed by implementing an electronic signature system. A partner of the University of Texas (UT) Southwestern Medical Center, Zale Lipshy has introduced a system that reduced the number of physician visits to HIM to complete records.

Laying the Groundwork

Originally outsourced, transcription for Zale Lipshy moved in-house in 1996 when the hospital bought a new transcription system and hired five transcriptionists and a manager. The system was troubled with low turnaround times, lack of remote accessibility, and no electronic signature capability.

The HIM department uses the same vendor for all of its integrated applications. To ensure that all systems are current, both the patient management and patient accounting databases are interfaced with the HIM databases, which run software for transcription, abstracting, coding, utilization review, chart tracking, release of information, cancer registry, and deficiency management with electronic signature. The Zale Lipshy systems also interface to the campus clinical data repository (CDR), which includes all visit information, lab results, radiology, EKG results, and transcription for all patient visits at UT's campus partners. These integrated modules provide the foundation for our electronic record future.

To move toward electronic signature for physicians and to take better advantage of integration with the rest of the HIM systems, Zale Lipshy implemented a new transcription system using the same HIM vendor in 1999. Now, the transcriptionists work from home via ISDN lines to the network, allowing documents to be accessible in real time and faxed to physician offices via automated print and fax software as soon as they are completed.

Pilot Program Proves Successful

After the new transcription system was implemented, previous transcription productivity standards were reached within two months. Zale Lipshy was finally ready for an electronic signature system.

The neurosurgery department, which has the highest volume of surgeries at Zale Lipshy, requested to be the first to use the electronic signature authentication (ESA). As a result, the ESA pilot group consisted of three neurosurgeons and two neurologists. Three physicians attended the planning meetings and assisted in making decisions that would affect the medical staff. The project team reviewed the sample policies and procedures provided by the vendor and customized them to reflect the Zale Lipshy environment. The sample training checklist and instructions were also customized and are still used as doctors are trained on the system. Once the system went live, the pilot group was trained, and within 15 minutes, they were able to sign real documents.

Overall, the rollout was a success. The first five physicians utilized the electronic signature system for three weeks, and then the project team rolled out the system to departments with the highest volume of dictation. The project team contacted physicians in each department by e-mail to schedule training, while the information systems department set up terminals in HIM that allowed physicians to log on to only use ESA. For the surgeons' convenience, these devices and flat monitors are also in the operating room staff lounge.

To give all clinicians on campus access to transcribed documents, these are uploaded to the clinical data repository in a "pending" status when first completed by a transcriptionist. After the physician signs the document in the system, the document

is uploaded in a "final" status with the authentication text in the document. To access the system, the physicians use a browser on any campus computer to access a Web page inside the campus firewall.

One of the major successes of the electronic signature system is its editing capabilities. By giving physicians access to the editing function, blank spaces in reports have been eliminated and physicians appreciate the ability to correct and personalize their dictation with online editing. Because a signed document cannot be altered, the physicians need to be familiar with Microsoft Word before receiving editing privileges.

"I like the ESA [system] because I can correct typing and punctuation errors and my own dictation lapses without having to scratch out [words] and look for a place to hand write them on the printed page," says Dr. Howard Morgan, Trammel Crow Professor of Neurosurgery and professor of neurological surgery at UT Southwestern. "In addition, I can correct the transcriptionists' configurations and make the pages appear more like what I want, as well as add things I may have left off when I originally dictated the document."

Physicians also recognize the quick turnaround time of the transcription department and usually sign charts the afternoon after they dictate them. Currently, approximately 50 physicians are using the electronic signature system at Zale Lipshy University Hospital. The HIM department plans to add 100 more physicians to the system in the next year.

As a result of the system's success, the physicians have requested remote access so they can sign documents from home, which UT Southwestern is preparing to offer. Zale Lipshy will review and adhere to HIPAA guidelines that address accessing patient information remotely if and when remote access is a probability. Physicians have also requested the ability to electronically sign the verbal orders and unsigned progress notes on the handwritten pages of the medical records. The hospital is considering scanning medical records and providing online chart completion through the electronic signature system to eliminate the physicians' visits to the HIM department to complete and sign handwritten notes.

HIM has reaped other benefits of the new system: the delinquent record count has decreased, as well

as the number of requests for copies, because all documents are sent to

the campus repository system. More users have access to documents, including coding, release of information, utilization management, performance improvement, and risk management.

A Foundation for Future Progress

The electronic signature implementation provided valuable information to the project team. For example, the team learned that it is beneficial to have IS staff with an HIM background to train physicians about accessing the electronic signature system via a Web browser. The HIM and IS departments must have a close working relationship to be efficient and for the project to reach its highest rate of effectiveness.

Ultimately, the staff received positive feedback from physicians on quality of their work and ease of use of the system. This type of feedback gives HIM a mechanism to sell the system functionality to other physicians on campus.

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