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From the Trenches: EHR Strategies and the Role of Health Information Management

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Leslie: This month we catch up with Debbie Sarantopoulos, RHIA, director, HIM and medical library, and George Morris, vice president of information systems and chief information officer (CIO) at Northwest Community Hospital (NCH). We had a chance to talk with them about NCH's electronic health record (EHR) vision and strategy and Debbie's role in the EHR.

Patty: NCH is located in the northwest suburbs outside of Chicago. It is a 563-bed hospital with more than 9,000 outpatient procedures, 330,000 outpatient visits and nearly 800 medical staff and 3,300 employees.

Patty: Hi Debbie. Thank you for agreeing to share your experience with us. Please describe for our readers NCH's EHR journey.

Debbie: Hi Patty and Leslie. In 2003, NCH began planning the implementation of the EHR. We refer to the EHR as CareLink. In the fall of 2004, we used the big bang approach to roll out Phase I of CareLink. CareLink includes document imaging and a portal for physicians and authorized users to access results, census reports and medical records. In addition, we implemented electronic signature and an entirely new deficiency management system.

We are currently in the throes of Phase II, which includes implementing an emergency services clinical documentation system, nursing and ancillary clinical documentation systems, and updating the scheduling system house-wide.

Phase III includes physician order entry, a new pharmacy system and a medication administration module. Subsequent phases will include data mining technology and additional physician and departmental clinical systems.

Leslie: I see that that physician order entry is included in the later phase. What has been your rationale for sequencing this later?

Debbie: George Morris just stopped by my office, let's bring him into this part of the conversation.

George: We believe that physician adoption will come easier if implementation of physician clinical modules occur in later phases. Phase I was about solving business issues, getting the technology infrastructure in place and introducing into physicians' manual workflow some automated workflow. We wanted to ease clinicians into automated processes and give them value from day one by providing e-signature, deficiency management, and easier ways to access and interact with results and their patient's medical records.

There are three principals that guided NCH during the initial phase: 1. designing the right technology

infrastructure that supports future EHR migration plans; 2. providing access to medical records such as ED records for physicians and other providers within 24 hours of a visit; and 3. creating the foundation for the legal record. Most people don't think about what the legal record is in an electronic environment and what you are going to do in the back-end to support workflow. Designating the document imaging system as the database that stores the legal record was one of the first decisions we knew we needed to make. Because of this decision, everyone house-wide understands what the legal record is today.

Debbie: Implementing order entry and physician documentation during later phases also provides the necessary time to work with physicians and our vendor on workflow and practice standards in an electronic record environment. For now, we are seeing excellent physician adoption using CareLink to view results and view and electronically sign medical record documents.

Patty: George, what do you see as the future of document imaging as more and more of the record becomes electronic?

George: We envision importing all electronically captured documentation into the document imaging system. Our EHR strategy is to utilize a single clinical system vendor with possibly some integration to a couple of departmental systems. This makes interfaces to the document imaging system less of an issue because the majority of data will be imported from within the single clinical system. For example, data will be imported from the nursing clinical documentation module. This data will be formatted to support online viewing and printing of the legal record. The document imaging system will store the legal record forevermore.

Data will continue to reside in a data repository. Physicians and other clinical providers will access the repository as part of the interactive flow of patient care and for decision support.

Patty: You have described a very practical solution to the problem of designating and printing a legal medical record, a problem that plagues many HIM departments today. It makes a lot of sense to designate one application as the primary database that stores and maintains the legal record. It allows data to reside in different formats and in different databases that serve different purposes.

George: That's how we see it. The "grail" will be a repository that uses data management tools to quickly identify trends in disease and treatment. It will include sophisticated data mining algorithms that use artificial intelligence to identify trends in real time.

Leslie: George, what role do you see for HIM professionals as it relates to maintaining a clinical repository?

George: It shouldn't be much different than in the paper record environment. In the paper environment HIM is the keeper and protector of the paper record. No one clinical silo has this big picture of the medical record like HIM does. HIM professionals understand how data is collected, the meaning of data or data definitions, who uses data and its various uses. They also understand data integrity management, the importance of data standards, and the regulatory issues related to the storage and maintenance of the legal record. It's the same concepts in an electronic environment; they will just be using different skill sets.

Leslie: Thanks George for sharing your insights with us. I really appreciate hearing from a CIO who understands the value of HIM.

George: Thanks Leslie. Debbie helps us to ensure that the HIM perspective is included in all of our EHR planning.

Patty: Let's turn our conversation to learning more about Debbie's role in the EHR. Debbie, what was your

main focus during Phase I?

Debbie: I spent about 75 percent of my time providing tactical and strategic leadership for the document imaging implementation. This included initial preparation for document imaging, managing the forms inventory process, planning workflow, developing staffing plans and transitioning from a decentralized record management system to a centralized record management system.

Leslie: Did you have to add staff?

Debbie: Prior to document imaging, ancillary departments such as physical therapy, radiation oncology, respiratory therapy etc. maintained their own records. To accommodate an increase in volumes to be processed by HIM, 13 full time equivalents (FTEs) plus a supervisor were added.

Leslie: Did you have to make any changes within your existing staff?

Debbie: We determined as a management group the roles we would need for document imaging. Our vendor helped us with job descriptions and establishing baseline productivity standards. We transitioned all of our staff from Medical Technician I and II to HIM Technicians I and II. HIM I's prep, scan and store records. They also retrieve historical paper records maintained in the department's file room. The HIM II technician performs indexing, analysis and QA.

Leslie: I understand from one of your prior comments that you took a big bang approach. Why did you choose this approach?

Debbie: We wanted everyone to be on the same page at the same time. We especially wanted physicians to be able to access documentation created across the health care system. We also thought if we didn't go big bang, it would prolong the change process and we might lose momentum or worse, get derailed as time lapsed between one area coming up and the next one gearing up for implementation.

Leslie: How did it go?

Debbie: It went well but that is not to say it wasn't tough at times. Change is never easy and the first month was a challenge. But after the first month everyone seemed to adjust to change very well as users of the medical record, as well as to the process changes within the HIM department, and in the ancillary departments. Within the HIM department we did a lot of things to minimize stress. We had a chocolate day for example, distributed stress balls, celebrated milestones and distributed candy and thank you notes.

Patty: What were your biggest challenges in Phase I?

Debbie: I would say centralizing the record management system was the biggest challenge. It involved the most amount of change for the organization. It required HIM to understand ancillary workflow and for ancillary areas to think differently about the management and storage of medical records. A great outcome of this collaboration, in addition to centralized management of medical records, has been improved coding quality and turnaround time. Records are in one central database making access to documents for coding timely.

Leslie: What are you working on next?

Debbie: I am currently involved in the emergency services documentation rollout. I am a member of the steering committee and a member of several workgroups. My role is to review the coding and E/M leveling

pieces of the application and documentation templates to ensure compliance with AMA 95 guidelines for coding as well as for compliance of documentation needed in printable format. I am also preparing my coders to transition to a coding validation role. Codes and levels will be automatically assigned requiring coders to review the codes for accuracy and then submit them for billing.

Leslie: That's terrific Debbie. What a great opportunity for you and your coding staff. What are some tips for your peers as their organizations implement components of the EHR?

Debbie: Read as much as possible and stay current. Brush up on your technology skills especially in the areas of data management and databases. I would also add that it's important not to be afraid of the change to e-HIM™. The challenge is to get the HIM perspective to the table so that HIM concepts don't become an afterthought. Collaboration is also important.

Patty: Thank you Debbie for sharing your lessons learned with us today. We wish you well on your journey to the EHR.

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