Electronic Integration a Must For Integrated Delivery Networks

Healthcare organizations within an integrated delivery network (IDN) will not be completely integrated until they are integrated electronically through a comprehensive information system (IS), Barbara J. Hoehn, RN, told participants at a recent Midwest Managed Health Care Congress in Chicago. An IDN's success depends on its healthcare providers' ability "to move information—clinical information, business information, physician and clinical provider information—among all the IDN's entities," said Hoehn who is senior manager, National Systems Integration Practice, KPMG Peat Marwick, New York City.

CLINICAL INTEGRATION

Clinical integration is an especially important component in an IDN's continuum of care. The clinicians—physicians, nurses, and other healthcare professionals—interact the most with an IDN's members, or patients. "Not only can the right information system get information to the physician who needs to take care of a patient in his or her office, but the information can follow the patient wherever he or she goes in the contin-

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uum of care," noted Hoehn.

When clinicians enter findings and recommendations into the IS, the information must "explode to all departments," such as radiology, laboratory, and quality assurance, Hoehn pointed out. ISs that can accomplish these tasks are available today; however, few organizations have such systems in place, said Hoehn.

ISs have traditionally been used primarily for scheduling, not artificial intelligence. But today clinicians need IS technology that will help them with decision making, Hoehn said. For example, if a patient does not fill a prescription for a certain medication, the system alerts the clinician that additional tests may be necessary because that medication may no longer be appropriate.

Paradigm Shift   Clinical care has shifted to a patient, or member, focus. Hoehn said the clinical ISs of 10 years ago are not compatible with this new paradigm. Hoehn emphasized that *member* information (e.g., age, medication allergies, preexisting conditions) should be entered into the IS before the member becomes a patient. Care can then be administered as quickly as possible when the patient needs it. In a managed care environment, especially a capitated system, Hoehn added, the payer needs to collect member information as soon as the person is enrolled.

CLINICAL TECHNOLOGY NEEDS

Various healthcare environments have particular clinical information technology needs, which ISs will be expected to support.

Acute Care   As organizations become integrated, they tend to become integrated internally, said Hoehn. But when acute care facilities take their current information systems and "slam-dunk" them into a long-term care environment, for example, this is not successful, according to Hoehn. Many healthcare entities have unique needs that an acute care environment's IS cannot meet. An entity's leaders must determine what type of integration needs to be in place.

In the years ahead, healthcare providers will

CLINICAL INTEGRATION: SOME QUESTIONS TO ADDRESS

To achieve clinical integration, IDN leaders and IS designers need to address the following questions:

- What kind of data do clinicians want to collect?
- What will clinicians do with clinical protocols?
- How is the IDN going to coordinate care within and among the entities and between clinical encounters?
- How will the computer-based patient record be structured?
- How will the patient record be implemented?
- Will protocols be department specific, environment specific?
- Will protocols cross the continuum, that is, start in the physician's office and go all the way through to home care?

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need robust IS technology, because patients coming to acute care settings will be sicker, Hoehn said. Clinicians will need multiple data bases to support patient care and the research necessary for managing outcomes.

"Clinician-seductive" work stations that "entice physicians and clinicians to use the system" are important, Hoehn stated. To achieve this, she said, information has to be presented in the manner in which care givers think. She suggested that one way to do this is to put all the data on one screen.

Physicians must enter information in the IS themselves. This can save staff time, eliminating interruptions when data-entry clerks have to ask questions about the information to be put into the system.

Clinicians have not accepted point-of-care

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technology (e.g., the bedside computer terminal) as readily as they have accepted hand-held technology (e.g., a pen-based system), which can move *with* clinicians, Hoehn added. As a way to get clinicians accustomed to making use of hand-held technology, many organizations are asking their physicians to use it today to keep track of their schedules.

Managed Care Environment The IS must allow for facility integration between the managed care system and the care provider system (e.g., the physician office system, hospital system, or a long-term care facility system).

Payers want access to providers' information systems, Hoehn said, to monitor the cost of care and practice patterns. They are asking, Who are the high-quality, low-cost clinicians?

—*Michelle Hey*

AN IDEAL CLINICAL INFORMATION SYSTEM

Before approaching an information system (IS) design firm, or when working with one on the development of an IS, healthcare providers need to think about what they want the system to be able to do. For example, until recently, patient care plans were individualized. Now, as universal clinical protocols are developed for patient populations, healthcare providers must be able to enter a clinical protocol into the system when a patient seeks care.

CLINICAL APPLICATIONS
The clinical IS must include the following applications:

• Uniform registration process, regardless of where the member enters the continuum of care

• Member master patient index to track people once they become members—before they become patients

• Integrated patient scheduling

• Unified medical record

• Contract management (one way to ensure an order is covered by the payer is to transmit information to the contract department)

• A unique patient identifier (to allow a physician, or any care giver, in a satellite clinic to access a patient's complete health history by entering the patient identifier—for example, Social Security number)

• Tracking cost of care
• Outcomes management
• Integrated ancillary systems
• Integrated clinical planning
• Clinical training

PATIENT CARE AND CARE MANAGEMENT APPLICATIONS
In addition, a clinical IS must have specific applications for direct patient care and care management:

• Health maintenance record
• Clinical assessments
• Orders management
• Integrated results (presents information the way clinicians think)
• Integrated clinical documentation
• Diagnostic and therapeutic imaging
• Integrated resource scheduling
• Critical paths
• Clinical protocols
• Variance reporting
• Utilization management
• Clinical referrals
• Clinical ancillaries
• Decision support