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HIM staff need to be more involved in implementing core measures

Take next step in performance measurement

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) in Oakbrook Terrace, IL, refers to its core measurements as the next step in the performance measurement evolution.

HIM professionals might agree that at the very least, core measures — which are used only by acute care hospitals — are an important quality assessment tool that provide standardization and the possibility of clean benchmarking data.

"Core measures make up the bulk of measures that have been recommended for use across the country," says **Judy Finlan**, RN, MBA, CPHQ, product manager of QuadraMed Corp. in Neptune, NJ. QuadraMed is an approved vendor for core measurements.

Although nursing staff will argue that only a nurse can obtain the core measure information, some facilities will rely on their most skilled coders to abstract the data, Finlan says. **(See story on strategies for collecting core measurements, p. 126.)**

"Coders would need to know a lot more detail with regard to drugs that are ordered and when they are administered," Finlan says. "They'll be looking in more detail at the types of discharge instructions given to patients, and I do know of some hospitals where they've identified their very good coders and promoted them into this position."

Because hospitals are experiencing both nursing and coding staff shortages, each facility may have its own way of handling the data collection, but it is clear that someone's workload will be increased as a result, Finlan adds.

Finlan is scheduled to speak about core measurements at the 74th National Convention and Exhibit of the Washington, DC-based American Health Information Management Association. The convention is Sept. 21-26 in San Francisco.

Here is what HIM professionals need to know about core measurements and collecting those data:

• **What are core measurements?**

The Joint Commission has created requirements, data elements, data definitions, and algorithms to calculate outcomes for a set of specific measures that are particularly important in quality improvement for acute care hospitals. These became effective for all patients discharged on or after July 1, 2002.

The four focus areas identified by the Joint Commission are:

— acute myocardial infarction;
— heart failure;
— community-acquired pneumonia;
— pregnancy and related obstetrical conditions.

Each measure set has about 15-20 standardized questions.

After establishing these core measurements, the Joint Commission tested more than 50 vendors to make certain they had standardized methods for compiling and reporting the data, Finlan says.

"What the Joint Commission did was give vendors specifications and then sent raw data to each of the vendors," Finlan explains. "They had 48 hours to run the data through their programs and get the results back to the Joint Commission."

The vendors whose answers passed the Joint Commission's test were deemed ready to provide vending services to acute care hospitals, Finlan adds.

• **Core measures are putting more emphasis on the importance of HIM departments.**

"I think one of the things I have noticed is that there's more emphasis and attention paid to the UB data by other departments within the hospital," Finlan says. "In a lot of institutions it has always been difficult for coders to get the respect they deserve because clinicians thought the data was not going to be used for anything except paying bills."

Now that coding data are being used to measure quality and this information is reported to the Joint Commission, there is a trend of clinicians beginning to listen more closely to what HIM professionals have to say, Finlan adds.

"HIM directors have to be involved in implementing core measures because it's their data," Finlan says.

• **The use of risk adjustment in core measurements levels the playing field.**

To keep core measurements as fair as possible, there are risk adjustments added to the analysis. This way, a hospital's data may actually reflect more positive or negative outcomes than the number alone would suggest.

For example, suppose Hospital A had 20% of its patients die from acute myocardial infarction, Finlan offers. On the surface, that percentage may sound high, but when risk-adjustment factors are included in the analysis, it may be that the hospital actually could have expected to see a 40% death rate among this same population, Finlan explains.

"And that is the information that is going to the Joint Commission and to hospitals, as well," Finlan says. "When you try to give [benchmark] results to doctors, the first thing they'll say is, 'My patients are sicker,' so risk adjustment takes into account which patients are sicker on a subjective basis."

All vendors supplying core measurement services will have the capability of doing risk adjustment, Finlan says. ■

Get the most from core measurements

Expert offers these guidelines

HIM professionals play an important role in collecting core measurements under requirements implemented by the Joint Commission on Accreditation of Healthcare Organizations in Oakbrook Terrace, IL.

However, to use core measurement reports most effectively, HIM staff will need to plan and prepare to improve processes for collecting, analyzing, and reporting the data.

Judy Finlan, RN, MBA, CPHQ, a product manager with QuadraMed Corp. in Neptune, NJ, offers these suggestions for establishing a sound and useful core measurement collection process:

• **Select the most effective and appropriate vendor.**

HIM departments need to make certain their vendors provide audit reports that are as clean as possible, Finlan says.

This means every data element must be completed, both in what is sent to the vendor and in what the vendor returns to the hospital, Finlan explains.

"One of the requirements that I'm not certain a lot of people fully understand is the fact that vendors have to report to the Joint Commission the number of records that are missing or have invalid data elements," Finlan says. "This makes it a lot more important than if there were just a missed discharge status every now and then."

Hospital systems should make certain their vendor has experience in handling patient-level data and has not simply analyzed aggregate data, Finlan suggests.

"It's one thing to report that 15 of 45 patients have had a C-section, and it's another thing to send data showing each patient who has had a C-section," Finlan says.

Also, hospitals should look for a vendor who is flexible and who listens to the client's needs, producing the reports and formats the client wants, Finlan says.

The vendor should have a track record of reporting data to the Joint Commission and some experience in doing risk adjustment, Finlan adds.

"Most important of all, make sure the risk adjustment models are based on the use of UB data, so if you're used to doing risk adjustment, you can look at the UB database and make sure things are reported in the right way," Finlan says.

Address data interpretation issues

• **Make certain the vendor's data and hospital's data match.**

Make certain the data being sent to the vendor are interpreted appropriately, Finlan advises.

In other words, be sure that what is sent in will be returned in the same context. This can be assessed very easily sometimes. For instance, if a core measurements report notes that 1% of patients died within the past month, but the vendor returns an analysis that says 25% of patients died, then obviously the vendor is not interpreting the data in the same way, Finlan says.

The problem could be that the vendor is switching fields in the database or considering some other baseline factor, such as admissions, rather than discharge status. The vendor may be interpreting the hospital's format differently from the way that the HIM department expected, or reporting codes of patients that are not typical in the hospital's experience, Finlan explains.

This type of data miscommunication needs to be resolved by HIM professionals and a hospital's quality improvement staff through collaborative data reviews, Finlan suggests.

"I've always thought that the two departments had to work very closely together," Finlan says.

• **Know what the Joint Commission wants and how to present it.**

"You've got to be familiar with the questions and how the Joint Commission wants them answered," Finlan says. "Some of the clinical interpretations are slightly different from the way we're used to seeing them in our everyday lives."

However, everyone has to use the same set of data definitions, or it would be impossible to benchmark and make comparisons, Finlan adds.

"The vendors don't have any wiggle room," she says. "The Joint Commission has told vendors that these are the questions and these are the acceptable values, so it's all in the clinical interpretation."

Most of the questions are straightforward, with the answers to most of them being "yes" or "no," dates, or times.

The job of HIM professionals and quality staff is to read between the lines while interpreting the findings.

Make sure comparisons are appropriate

• **Learn how to make use of the reports and findings.**

Each hospital should receive a description of its own outcomes on the core measurement areas, as well as benchmarks from similar hospitals.

Again, this is where the vendor selected is an important consideration, because it would be more useful for a hospital that specializes in open-heart surgery to be compared with other hospitals that provide that service than with small community hospitals that do not, and vice versa, Finlan notes.

"A community hospital might have a higher mortality rate for heart conditions because all of the people with a good likelihood of surviving are sent somewhere else for more treatment, so the community hospital ends up with those who are remaining," Finlan says.

To make certain one's own data are being compared fairly, a hospital should ask the vendor for user-friendly reports that list how many hospitals in the database are similar to one's own hospital in services, size, and other features, Finlan says.

"The Joint Commission will be providing all vendors with a national benchmark, and we had hoped they were going to break it out by bed size or teaching status, but I haven't heard any definitive word that they're doing that," Finlan says.

• **Look for opportunities to improve.**

The purpose of collecting and analyzing core measurements is to improve quality and develop a focus for performance improvement activities. This objective should be a top priority.

This is why it's very important that HIM professionals assist quality staff in making certain that every item is coded correctly and includes all comorbid conditions, with risk adjustments identified and included in the codes, Finlan says.

For example, if an audit report for baby birth weights among neonatal mortalities includes a baby with a birth weight of 1,750 grams, but the ICD-9 code lists a range of 750-999 grams, then there's a discrepancy on the audit report, Finlan says.

"Someone should check to see if the birth weight was listed incorrectly or whether the case was coded incorrectly," she adds. "You need to go back to the chart and see who made the mistake."

Go beyond routine audits

Errors typically may be small ones that are overlooked during routine chart audits. For instance, a clinician's medical history may say that a particular patient smokes. Core measurement questions may ask directly whether the patient smokes, and if the answer is listed as "No," then there's a discrepancy that would need to be listed as part of an audit report, Finlan says.

Discrepancies or omissions in comorbid conditions are another way that reports may be in error, and the Joint Commission wants comorbid conditions to be collected, so this area must be monitored, Finlan says.

"Say the patient has a principle diagnosis of myocardial infarction [MI] and is part of an acute myocardial infarction measure set," Finlan says. "But if the patient also has diabetes, that would be a comorbid condition, which increases the risk of having something bad happen to the patient while clinicians are treating the patient for the MI."

Comorbid conditions are collected through ICD-9 codes and will require answers to such questions as: "Did the patient get aspirin during the 24 hours before or after arrival at the hospital? Did the patient have contraindications to receiving the aspirin?" Finlan explains.

If these questions remain unanswered, then HIM staff will assist in finding the answers as it is their data that will be used to implement core measurements, Finlan says. ■

Bedside registration working for Iowa ED

Patients and clinicians love the new system

Bedside registration is "the gold standard" for care in the emergency department (ED), ensuring EMTALA compliance as well as patient privacy and satisfaction, says **Mary Miller**, RN, manager of access services at Mercy Medical Center (MMC) in Sioux City, IA.

Concerned that up-front ED registration could be misconstrued as an effort to obtain financial information before treatment, the hospital implemented bedside registration in July 2000. Also fueling the move was a registration booth design that at the time was not particularly conducive to patient confidentiality, Miller notes.

"Patient satisfaction surveys and comments have shown that patients and their families love it," Miller says. "If a patient has been taken back for treatment and family members are kept out front to give information, they may not care about [the accuracy] of what they give. When [registrars] go to the bedside, patients just love it. They sit there and see that they're not missing the doctor, and it's really private because the patient has his or her own room."

"[Bedside registration] has reduced wait time considerably," notes **Nancy A. Jackson**, MSW, LISW, interim director of revenue cycle systems. "Another [patient satisfier] is that we don't ask the same questions at three different points." Previously, she adds, patients might have been asked for the same demographic information when they arrived at the triage area, again when they entered the ED, and again if they are admitted to an inpatient unit.

"With bedside registration," Jackson says, "once the information is entered by the registrar, it automatically goes into the computer system. Demographics are pulled up and attached to the nursing assessment, so the nurse doesn't have to re-ask those questions. It has really reduced the anxiety and frustration on the part of patient and family."

The average ED registration — from the time the patient presents at the front desk to be triaged until the chart prints — takes seven minutes, adds Miller. "If we have had a call and know the name in advance, we can have the chart ready when the patient comes in."

Registration times for all patients have been monitored since the early 1990s, she notes, but the most dramatic improvements have taken place in the past two years. **(See related story, p. 130.)** Further enhancing customer service is the ED physicians' policy of not keeping patients waiting more than 30 minutes, she points out. "Usually, it's more like 10 minutes."

In another benefit to patient care, Miller says, "the nurse who triages the patient finds a physician immediately and says, 'This is what's going on with the patient, this is what I've done.' He can tell [the nurse] to get certain things started."

In other cases, she notes, the nurse may tell the physician that he must see the patient right away. "The physician has a good idea of [the condition of] each patient as quickly as the nurse does."

The registration process works as follows, Miller explains. The patient comes in and is greeted by the triage nurse, who assesses the acuity of the condition and takes the patient back to a treatment room. The nurse goes to a white board located near the nurses' station and puts an "A" (for access) next to one of the room numbers listed there.

"The registrar, who could be either out front or in the back registering another patient, sees that there is a patient in Room 10 who needs registering," she adds. The ED nurses' station, Miller notes, is back-to-back with the registration station.

"If the physician comes in and the registrar has to step out, that's fine," she says. "We're happy to do it. A lot of the time, the patient is so bad that the physician just says, 'Stay here and get what you can.'"

Information is entered into the computers in real time and then printed out near the nurses' station, Miller adds. Registrars take consent forms and copies of patients' rights and responsibilities, including advance directives, to the bedside as well, she says. "We give [advance directives] to all patients coming through our system, not just inpatients."

At present, registrars make a copy of the patient's insurance card or ID when they go to the chart room to put the charts together, she notes. "We hope to have a scanner in the future."

When a patient comes from an accident scene, for example, police take billfolds and purses, Miller says, so it can be a long time before registrars get access to patient identification. "We start with a blood bank ID, a red armband with just a number issued by the lab people that is specific to that patient. Any of the lab work or tests that are done will tie in to that number."

There are two registrars on duty for the day and evening shifts, she notes, and one person doing registration from 11 p.m. to 7 a.m.

If the triage nurse has taken another patient back to the treatment area for care and is still there when someone arrives, the registrar out front can either ask the person to wait for a moment or run to the back to get help, depending on the person's condition, Miller says.

"Sometimes the treatment rooms are full," she adds. In that case, the triage nurse may determine that the person only has a sore throat, for example, and can be interviewed in the registration booth up front. If the condition is more serious, Miller says, the nurse takes the patient back immediately, possibly displacing a nonemergent patient.

"We do have an ambulatory diagnostic area [adjacent to the ED]," she notes, "so we could put a less acute person in there. We have some room to improvise when we need to."

The hospital is extremely committed to compliance with the Emergency Medical Treatment and Labor Act, Miller says, and has an inservice and "skill-builder" session on the subject every year. Registrars are required to score 90% or better on a related questionnaire, she notes.

Staff preparation

To ensure that plenty of staff would be on hand during the learning curve for bedside registration, all the registrars worked 12-hour shifts for the two weeks prior to implementation, Miller says. "Then we would go back and have meetings with the ED nursing staff and the registrars and say, 'This works and this doesn't.'"

It was important during that time to have the overlap provided by having three registrars on duty at once, she adds. After a while, Miller notes, the registrar up front, for example, got into the routine of getting the patient's chart pulled for the registrar working in the back as soon as the printer went off.

Staff also discovered that it worked best if the "front" and "back" registrars are on a one- or two-hour rotation, she says, so each person has a chance to be off her feet periodically.

"One of the things that bothered [the registrars] at first was pushing the carts [containing the laptop computers] around corners and down different halls," Miller notes. Now one is kept sitting in

a hallway, shut down and inaccessible if not in use but available when needed, she adds.

The department has four of the carts with laptops, two of which are kept in use and two that are kept in the MIS area being charged and checked, Miller says.

One of the initial hurdles to implementation was nurses' concern that bedside registration might delay or interfere with care, she notes, but that concern appears to have been alleviated. "Sometimes [nurses] forget to put the patient's name on the board, so we have to quickly get in there [and do the registration], but that's just because they're busy."

Access staff are looking forward to the opportunity to extend bedside registration to some of the hospital's inpatient areas, notes Jackson. "We have identified the possibility of expanding bedside registration into our Centers of Excellence."

Among several such centers at Mercy, she adds, are a total joint center, a stroke center, a child protection center, and an obstetrics center. "We are one of the top 100 heart hospitals in the country and right now are building a multimillion-dollar heart center." ■

Tighter system reduces registration to 6-7 minutes

Physicians' concerns sparked effort

Registration times for patients at Memorial Medical Center (MMC) in Sioux City, IA, average six or seven minutes, says **Mary Miller**, RN, manager of access services.

That includes "anybody who comes in for anything," she adds. "We really work to keep it there."

Although registration times at Mercy have been monitored for the past decade, a renewed focus on reducing them began a couple of years ago, she notes. "Our access director at the time came to me and said he had committed the department to registering same-day surgery patients in 15 minutes or less."

"The physicians didn't want the surgery time delayed," Miller explains. "They were extremely unhappy if we were unable to meet 'table time,' which is the time they want to actually begin the surgery. We committed to meeting that time."

In the past, she notes, the problem had been that patients occasionally would not be ready at the appointed time and there would be a "domino effect" that backed up the rest of the day's procedures."

To facilitate the process for those patients, Miller says, staff put big orange dots on those registrations. "Now we use stars, but it tells us this is a same-day surgery patient and to give that patient priority. We found that when they're moving through faster, other patients are, too."

Putting a bigger emphasis on preadmission was one key to the reduced registration time, she notes. "The more pre-admit charts we have, the less time it takes."

Designated access nurse speeds process

Designating an access nurse to greet incoming patients, prioritize them, and move them quickly into registration booths also speeds up the process, Miller notes. "[That nurse] is constantly watching [as patients arrive]. We don't want patients to even sit down in the waiting area if they don't have to."

To make sure the system works, Miller sits at the registration desk between 6 a.m. and 8 a.m., during the time the same-day surgery patients begin arriving, she notes. "I make sure that as soon as the patient comes in, the next registrar has that patient."

With 150-300 patients a day coming through, it's important that the first surgical procedures begin on time, Miller says. Registrations for a chest X-ray — which doesn't have a scheduled time — aren't as time-sensitive, she adds.

"It's like having an extra registration booth," Miller says. "I am at the front desk with the volunteer signing patients in. If the booths are full and the patient has a pre-admit chart, I place the face sheet in front of [the patient] and ask if it's correct. While I'm getting the signature, the volunteer is copying the front and back of the insurance card."

An interesting discovery has been that patients "love reading it," she adds. "They really read it carefully, line by line, and say things like, 'No, that should be an eight instead of a six in my mother's phone number.' It's their information, but we [traditionally] don't let them see it."

Regarding the admission of inpatients, Jackson explains, physicians were unhappy that as a

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Autocoding brings coding to 21st century and beyond

Myth: It'll cut jobs; Reality: Coders become experts

Only in a science fiction medical fantasy will the process of autocoding replace hands-on coders in hospital systems and other health care settings.

Autocoding is the process in which a clinician dictates notes that are transcribed and sent to a third-party vendor who has a software system that uses speech recognition software to automatically apply codes to diagnoses and services. The resulting coded information is returned to the health care provider's coding department.

However, the autocoding process, now in its infancy, is neither simple nor perfect. Even if autocoding greatly improves and becomes a standard technology for health care providers, it still will require expert coders to analyze and interpret the codes before they can be used with confidence for billing and quality improvement purposes, according to an expert on this new frontier of the medical coding industry.

"The best way to describe this is if we really take a look at what's going on in coding today with the advent of APC codes and all of the compliance issues," says **Todd Karner**, BSN, MGA, senior sales consultant for SoftMed Systems of Silver Spring, MD. Karner is scheduled to speak about autocoding at the 74th National Convention and Exhibit of the American Health Information Management Association of Washington, DC, held Sept. 21-26 in San Francisco.

Karner says he doesn't expect autocoding to replace coding staff. Ideally, health care systems will use autocoding to sort out routine coding from the more complex coding work, so coders and HIM professionals can use their time more efficiently, he says.

"Let the autocoders handle the easy things, and let the coding professionals take the time they don't have right now to really focus on where they are most needed," Karner says.

Karner offers this preview of autocoding developments:

- **Pioneering autocoding vendors and software:** A-Life Medical Inc. of San Diego, located on the Internet at www.alifemedical.com, is one of the leaders in natural language processing, which is how the magic of autocoding works, Karner says.

"The first generations of autocoding basically look for key words in the documents that are being evaluated so they can see a word fracture that would trigger a number of potential codes," Karner says. "It works differently in that it tries to evaluate words in the context of other words around it, even at the paragraph level."

Therefore, the autocoding system will be able to differentiate between a medical history and other medical chart sections. For instance, if a physician has dictated information about a patient's history and the software picks up the words "fracture," "femur," and "history," then it knows that this information is a history of patient and not an active problem.

"It also can take words in conjunction with other words in a sentence to get a more intelligent interpretation," Karner says.

This level of computer intelligence is critical to it being used effectively. "The software can rule out that this has not happened, as opposed to what has happened, and it applies logic to the text," Karner explains.

- **Catching coding mistakes:** Each vendor has a set of flags that gives the user an indication of how the coding session went, Karner says.

"Obviously, a number of these coding sessions are not completely perfect, so the vendors then rate the coding session as far as accuracy," Karner says. "Some give you a numeric rating or flag,

and they identify whether the coding session was clean and whether there were problems with it."

At this point, coders will manually review the process to correct the mistakes.

This is where autocoding as a technological efficiency could succeed or fail. If an autocoding system generates code sets that are riddled with errors, requiring hours of coder review, then it may be considered too much trouble and expense to use. However, if an autocoding system achieves an error rate of 10% to 15% or less, then it may be worth the investment, Karner says.

The percentage of errors likely will be directly related to how complex the coding files are. This is where a health care provider can both improve coding accuracy while enhancing the efficient use of staff resources.

"The strategy may not be to have it do all the documents, but if it can do the easy ones and leave the other ones for coders, then it may be a strategy to adopt," he suggests.

• **Early users of autocoding:** At present, the areas most likely to use autocoding are emergency departments and radiology departments, Karner says.

"Probably the reason for that is they tend to have a fairly well-defined set of patient populations with minimal variation," Karner explains. "And the other piece that lends itself well is that complete documentation is available electronically in those two areas."

For instance, if an emergency department physician dictates ED notes, there's a greater likelihood that there will be a completed dictation in a single document than if the physician is describing an inpatient stay. The same is true of a radiology note where a chest X-ray will require a single document of interpretation, Karner says.

• **Structuring the autocoding document:** This typically is a greater problem than the vocabulary issue. Different facilities and different physicians may put important information in different sections of a report, and this can create problems for the autocoding system.

"It's not uncommon for physicians to mix and match different pieces of a document when they do dictation," Karner says. "If they start to talk about their diagnosis when discussing the hospital piece or treatment, it makes it difficult for the autocoder to work."

A way to prevent this is for an HIM department to show clinicians a single format for dictating patient notes and to follow up on their progress in adhering to that formula.

One way to accomplish this is to post notes with the proper order for dictation, e.g., first: history of presenting illness; second: review of systems; third: impression / diagnosis; fourth: treatment plan. "Give physicians wallet cards with this order," Karner suggests.

While transcriptionists can help out with after-the-fact reformatting, this isn't the best solution, Karner notes. "It's better if it happens on the front end because there are so many variations in transcription these days from outside transcription services and voice recognition systems, and they may not offer the same services as in-house transcriptionists."

Which records need human interventions?

• **Coding work after autocoding:** If an autocoding system were to work ideally, then the HIM department would receive the codes with the flags, and the coders could then begin to clean up the errors. Everything else would be assumed to be accurate.

However, that isn't the case, and there likely will always be a need for coder intervention, even among the supposedly accurately autocoded documents, Karner says.

"The key is to identify which records need human interventions and which ones don't," Karner says.

For example, suppose there are 100 records that return from the autocoder. Assume that the hospital system's physicians dictate very well, so 75% of those records come back as completely clean. In this scenario, you can either send those clean records directly to billing, or, from a quality assurance perspective, there can be a random selection of a percentage of those clean records for review by an HIM professional, Karner says.

"I think this is where integration between autocoding functionality and traditional HIM vendors that support autocoding products are key," Karner says. "Most clinical abstracting products have a workflow that automatically routes the appropriate visit to a coding resource, and I think that having a user definition on how those jobs should be routed becomes essential in the autocoding process."

When autocoded records return to HIM departments, coders will not be coding these items, but will take the results and look for mistakes to correct, including subtle coding changes that will more accurately reflect the intent of standardized coding guidelines. ■

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result of data gathering, it was taking a long time to get their patients into a bed.

"Part of the problem was slow people in the central registration area," she says. "We made some changes, not only in work flow, but in the area itself. We have done major renovation and remodeling in the past two years."

The registration booths, which before could not be accessed easily by a person in a wheelchair, have been put in a different configuration and are more user-friendly, Jackson says. The new arrangement also is more conducive to patient privacy, she notes, which was a major emphasis in the redesign.

About four years ago, Jackson says, the hospital developed a revenue cycle system that has provided the framework for the recent improvements. Included in that system, she adds, are patient financial services, which comprises admitting and registration, clinical information systems (medical records), and case management services.

A recent report from the National Registry of Myocardial Infarction reveals another impressive statistic to which registration efforts have contributed, Miller points out. MMC's "door-to-dilatation time" — the time between a patient's arrival at the hospital and inflation of the balloon for a primary angioplasty procedure in the cardiac catheterization lab — is 69 minutes, she says. "The average in Iowa is 94 minutes, and the national average is 104 minutes."

Registration plays a part in that figure, Miller notes, "because registration doesn't hinder or delay [the process] in any way." ■

Treatment is priority, but plan to safeguard info

By **Patrice Spath**, RHIT
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Many health care facilities have an emergency disaster plan for dealing with patient care priorities, but the plan for handling information technology disasters may be vague or nonexistent. Although patients' well-being is very important during a disaster, institutions also need to protect the technology supporting patient care. Anticipating and preparing for management of and recovery from information system disasters is just as important as preparing for continuation of patient care in the event a disaster occurs.

Disaster planning requirements

The information management standards of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) require evidence of planning for and assurance of data and information security, broadly defined as protection "against loss, destruction, tampering, and unauthorized access or use." This requirement encompasses issues of confidentiality, meaning protection of a patient's privacy rights concerning health information; and security, which addresses the operational requirements of maintaining an information system. The Joint Commission's information management standards cover both patient care and business data systems.

The accreditation standards of other organizations have requirements similar to those of the Joint Commission. For example, the Accreditation Association for Ambulatory Health Care requires organizations to have a comprehensive emergency plan that addresses internal and external emergencies and the necessary personnel, equipment, procedures, and training to carry out the plan. The CARF standards for rehabilitation facilities require disaster planning, including a plan for providing critical patient care information during service disruptions.

The provisions of the 1996 Health Insurance Portability and Accountability Act (HIPAA) include many requirements directed at the information resources of health care organizations. The HIPAA regulations include a requirement that institutions have a formalized disaster recovery plan for information systems that has been tested. It is not clear at this time what type of testing is acceptable for compliance.

Emergency preparedness plan

Development of an emergency preparedness plan for information system disasters involves

three steps: 1) information gathering, 2) formulation and testing of the plan, and 3) plan maintenance. The activities involved in these steps are detailed below.

Information gathering

In a hospital setting, the chief information officer or health information management department director probably will take the lead in mobilizing an information management disaster team. People directly involved in patient care and business processes should be represented on the work group charged with plan development and maintenance. Once the team is formed, conduct an impact assessment. Have the team members answer questions such as:

- **What are the most critical information functions or systems in my unit/department?**
- **Are these paper-based or electronic systems?**
- **Which of these systems are most critical to patient care? To business processes?**
- **What would be the impact if these systems were severely interrupted?**

Documenting information management technology, systems, and processes already in place is a crucial starting point in the disaster recovery planning process.

Next, conduct a disaster risk assessment. The risk will vary by type and cause of the disaster. Determine what types of disasters might compromise your organization's health information system and the relative risk of an occurrence. Whenever possible, risk assessments should be based on historical trend data and input from knowledgeable people in the community. The information-gathering phase should include meetings with steering and work teams, a tour of the facility, collection of current documentations, and question-and-answer sessions.

Now it's time to develop your recovery strategy. Determine how you will operate during a severe disruption of services to ensure that all critical information management functions can be performed. How will you get the health information management department back up and running? Review your on-site and off-site backup and recovery procedures. For example, are you backing up critical patient information that is stored electronically? What provisions do you have for backing up critical information that is stored in paper-based information systems? Will backup information be affected if a fire or flood occurs in your building? How will electricity outages affect access to primary and backup information sources?

What if you can no longer perform work in your facility? Do you have an alternative location where information management functions can be performed? Explosion, earthquake, fire, tornado, hurricane — these phenomena can damage or destroy your facility. Getting patients and medical professionals out of the building and into another is one problem; getting patient records transferred is another. If a hospital has a computerized charting system, the information can be downloaded onto a disk, while hard copies of charts must be gathered and carried out.

Formulating and testing

Once the disaster risks and possible recovery plans have been identified and thoroughly discussed, it's time to write the emergency preparedness plan. The plan should document all components and steps of recognizing a disaster, what to do during recovery, and how information services will be restored.

The information systems disaster plan should be contained in a notebook that is kept at the institution, at employees' homes, and at any off-site data storage facilities. The notebook should include sections on the current environment as well as the recovery environment and action plans to follow at the time of a disaster or severe disruption, specifically describing how recovery (as defined in the strategies) for each system, process, and application is accomplished. If technology plays a key role in managing patient care information, the disaster plan also should include information about network configuration, communications closet layouts, cable diagrams, port connections, server configuration, and backup schedules.

Be sure to test the plan before an actual disaster. This will allow everyone in the organization to practice fulfilling his or her responsibilities and also help to reveal any shortcomings. Testing can be done through the creation of sample scenarios that simulate likely problems. Once people have reacted to these scenarios, detailed scripts can be written up describing the steps to take in case of such an event. These scenarios and scripts should be added to the disaster plan notebook to serve as learning resources for everyone in the organization. The better prepared the organization is, the faster the recovery will be if a disaster actually occurs.

Plan maintenance

Although the disaster recovery process may never be put into action, the plan should not become obsolete. When changes occur in the work force, system, equipment, or process, the plan needs to be updated to reflect these changes. The information management disaster team should hold regular meetings (ideally quarterly) to discuss any new technologies or processes that may have been added. The team also should test disaster scenarios and develop new action plans if necessary to maintain and refine the plan. The information systems disaster plan notebook should be updated appropriately and the changes communicated throughout the organization.

As organizations become more dependent on data communications networks and telecommunications, it is critical to be able to recover quickly from a disaster. A professional audit, at least biennially, of all systems and vendors involved may be necessary to maintain the proper links of communication and to ensure the integrity of the disaster recovery plan.

Prepare for failures

Health care organizations must practice preventive medicine within their information infrastructures. Information technology is becoming the backbone of hospitals, clinics, and physicians' offices. More providers are implementing electronic patient record systems, and network configurations between hospitals and remote clinics now allow for instantaneous transfer of patient data. If these technologies are disrupted during a disaster, then patient services are threatened. While disasters are, by nature, sudden and destructive, they should not be unexpected and they don't have to destroy caregivers' ability to access critical patient information. A well-executed and maintained recovery plan that specifically addresses information management problems is the best prescription for continuity of patient care during the worst of disasters.

Additional Resources

• ***Practice Brief: Disaster Planning for Health Information (2000).*** Published by the American Health Information Management Association, Chicago. This document is available on the association's web site: www.ahima.org.

• The **International Association for Information Management Professionals** has developed several disaster recovery tools. Excerpts from two chapters of the book *Emergency Management for Records and Information Programs,* as well as other resources, can be found on the association's web site: www.arma.org.

• The **American Medical Association** (AMA) has developed disaster preparedness resources that can be found on the AMA web site at: www.ama-assn.org/go/disasterpreparedness. ■

Bioterrorism bill may impact your ED

Government funds available for training

With the signing of the Public Health Security and Bioterrorism Response Act into law June 12, a national bioterrorism surveillance network was established.

The Emergency Public Information and Communications Advisory Committee will track outbreaks of infectious diseases. The law also provides for training of ED physicians and other health care providers to recognize and treat victims of biologic agents and other weapons of mass destruction.

The legislation allocates $1.6 billion in grants to states for hospital preparedness. "I think it's certain that this will translate into a large amount of funds for ED preparedness," says **Rich Klasco**, MD, chief medical officer for Greenwood Village, CO-based Micromedex, a provider of databases and integrated support tools covering drug, disease, patient education, toxicology, alternative medicine, regulatory, and chemical information, and an ED physician at Swedish Medical Center in Englewood, CO.

However, he argues that you should take a proactive stance regarding funding. "Instead of just waiting to see what comes to you from the federal government legislation, have a plan in your mind for what constitutes bioterrorism preparedness in your setting," he advises.

He recommends going to hospital administrators armed with a list of needed resources. "Everyone is waiting to be handed their tool kit. We all need to make some decisions about our needs," he says.

Although specific needs will vary widely depending on your ED, Klasco says information technology is a common thread.

"With urban EDs, the necessary equipment may be there, but knowledge is the critical piece that is missing," he says. He gives the example of the anthrax attacks that caused a deluge of "worried well" patients to tax the ED's resources. Due to lack of information about how to protect themselves, worried staff wore the highest-level personal protective equipment they had in the ED, which was not necessary, Klasco says.

"We were all wearing HEPA-filter recirculating masks. It was oppressive to work in them, and patients and co-workers could not understand you through the mask," he says.

If staff had access to information about what kind of protection actually was needed, it would have been easier to keep the ED up and running, he says.

Klasco adds that the Internet itself is a possible target in the event of a bioterrorism attack or may not be accessible due to a large volume of traffic. "When the CDC had a webcast after the anthrax exposures, I couldn't log on due to the traffic," he recalls. "The high volume of traffic clogs the sites and makes them unavailable."

Klasco also had the experience of being in Washington, DC, immediately after the anthrax attacks. "I saw how an incident of this nature can bring us to our knees. The senators I was there to meet did not have offices, telephones, or computers," he says. "It was an absolutely chaotic situation."

The most important solution is to have a way to put needed information into the hands of first responders, he concludes. "It's necessary to have the full spectrum of information technology available, because we don't know where the target is going to be in our information chain," he argues.

An important piece of this spectrum is handheld computers such as Palm devices, he says. "No matter how conscientious you may be, training happens on an intermittent basis. You need a substitute that will be there on a 24-hour basis." ■

Insurers say e-mail use increases liability risk

Think about HIPAA before you hit 'send'

As medical communications move on-line, so does medical liability risk, according to the eRisk Working Group for Healthcare, a consortium of national medical societies and liability carriers.

The eRisk Working Group for Healthcare has published an updated list of guidelines for on-line communications with patients, other health care providers, and industry. Driving the creation of these guidelines is the continued growth of e-mail, which is being driven by strong patient demand, according to recent studies published by Boston Consulting Group, Jupiter Media Metrix, and Medem Inc. The new guidelines were developed by the carriers and medical societies at the second annual eRisk Working Group for Healthcare conference held recently in San Francisco.

Authentication, encryption recommended

The new guidelines address both routine on-line interaction as well as on-line consultations, in which providers are reimbursed for providing care on-line, says **Mark Gorney**, MD, medical director for the Doctors Company, one of the largest national malpractice carriers.

The guidelines emphasize the need for secure on-line messaging, with authentication and encryption, he says, as opposed to the use of standard e-mail. A second set of guidelines for reimbursed on-line consultations was created in response to the growing interest in this service among both patients and physicians and an increase in the number of payers who are reimbursing or considering reimbursement for on-line consultations.

"The new eRisk guidelines make it clear that there are risks in using standard e-mail to communicate with patients or to transmit patient

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information to third parties," Gorney explains. "Charging patients or payers for an on-line consultation likely increases those risks. Given these risks and the HIPAA [Health Insurance Portability and Accountability Act] guidelines, it makes good sense to use a network that includes both encryption and authentication for transmitting messages."

The liability carriers and the societies agreed that technology adoption among health care providers is advancing rapidly and is challenging the health care industry to keep up with appropriate guidelines and advice. **Ed Gotlieb**, MD, a pediatrician and representative from the American Academy of Pediatrics, whose board has formally endorsed the eRisk guidelines, says the frequency of on-line communications is increasing rapidly.

Get informed consent before using e-mail

Gotlieb points out that many may assume e-mail communication is acceptable to patients, but the guidelines specifically say that informed consent is necessary before beginning any e-mail communication with a patient. That means the sender must explain to the patient that e-mail communication may not be as private as other methods, and the patient must consent to communicating that way despite the privacy shortcomings.

In particular, risk managers should warn staffers and clinicians against routinely soliciting patients' e-mail addresses as part of data collection and then using that address without informed consent. The new guidelines have this to say about getting informed consent for e-mail communication:

"Prior to the initiation of on-line communication between health care provider and patient, informed consent should be obtained from the patient regarding the appropriate use and limitations of this form of communication. Providers should consider developing and publishing specific guidelines for on-line communications with patients, such as avoiding emergency use, appropriate expectations for response times, etc. These guidelines should become part of the legal documentation and medical record when appropriate. Providers should consider developing patient selection criteria to identify those patients suitable for e-mail correspondence, thus eliminating persons who would not be compliant."

The summary guidelines for on-line communications and reimbursed on-line consultations have been posted on the liability carrier Web Sites and are also available at www.medem.com/erisk. **(See p. 138 for excerpts from the guidelines.)** ■

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Editorial Questions

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Guidelines urge: Guard on-line communications

Keep records of on-line communications

Below are excerpts from the eRisk Working Group for Healthcare's guidelines for on-line communications with patients, other health care providers, and industry:

• **Authentication** — The health care provider has a responsibility to take reasonable steps to authenticate the identity of correspondent(s) in an electronic communication and to ensure that recipients of information are authorized to receive it.

• **Confidentiality** — The health care provider is responsible for taking reasonable steps to protect patient privacy and to guard against unauthorized use of patient information.

• **Unauthorized Access** — The use of on-line communications may increase the risk of unauthorized distribution of patient information and create a clear record of this distribution. Health care providers should establish and follow procedures that help to mitigate this risk.

• **Informed Consent** — Prior to the initiation of on-line communication between health care provider and patient, informed consent should be obtained from the patient regarding the appropriate use and limitations of this form of communication. Providers should consider developing and publishing specific guidelines for on-line communications with patients, such as avoiding emergency use and appropriate expectations for response times. These guidelines should become part of the legal documentation and medical record when appropriate. Providers should consider developing patient selection criteria to identify those patients suitable for e-mail correspondence, thus eliminating persons who would not be compliant.

• **Medical Records** — A record of on-line communications pertinent to the ongoing medical care of the patient must be maintained as part of, and integrated into, the patient's medical record, whether that record is paper or electronic.

• **Authoritative Information** — Health care providers are responsible for the information that they provide or make available to their patients on-line. Information that is provided by e-mail or on a medical practice web site should come either directly from the health care provider or from a recognized and credible source after review by the provider.

• **Commercial Information** — Web sites and on-line communications of an advertising, promotional, or marketing nature may subject providers to increased liability, including implicit guarantees or implied warranty. Misleading or deceptive claims increase this liability.

• **Fee-Based On-line Consultation** — This is defined as a clinical consultation provided by a medical provider to a patient using the Internet or other similar electronic communications network in which the provider expects payment for the service. In a fee-based on-line consultation, the health care provider has the same obligations for patient care and follow up as in face-to-face, written, and telephone consultations. For example, an on-line consultation should include an explicit follow-up plan that is clearly communicated to the patient.

On-line consultations should occur only within the context of a previously established doctor-patient relationship that includes a face-to-face encounter when clinically appropriate. Records pertinent to the on-line consultation must be maintained as part of, and integrated into, the patient's medical record. Also, the patient must be clearly informed about charges that will be incurred, and that the charges may not be reimbursed by the patient's health insurance. If the patient chooses not to participate in the fee-based consultation, the patient should be encouraged to contact the provider's office by phone or other means. ■