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## Assess the quality of your core measure data: What you find may be surprising

*Now that data are being made public, you can't afford mistakes*

Imagine hearing this as part of a competitor's advertising campaign: At your hospital, fewer pneumonia patients receive antibiotics within recommended time frames. And your facility boasts the highest inpatient mortality rate for heart attacks.

There is just one catch: These claims are based on inaccurate, misleading core measure data submitted by your organization. Now, your competition is using your own data against you. Regardless of what damage control you attempt, lasting harm has been done to the public's perception of the quality of patient care provided at your facility.

This is just one of the problems that can occur if you don't keep a close watch on the accuracy of your core measure data. As of January 2004, hospitals are required to report on three of the four core measure sets developed by the Joint Commission on Accreditation of Healthcare Organizations:

1. acute myocardial infarction;
2. heart failure;
3. community-acquired pneumonia;
4. pregnancy and related conditions.

In 2003, the Joint Commission conducted site visits to 30 hospitals to assess the interrater reliability of different abstractors collecting the same core measure. During the site visits, Joint Commission staff abstracted core measure data elements and compared them with the original data previously submitted by hospitals — and discovered significant discrepancies.

"We found that the vast majority of hospitals that do core measures don't do any kind of formal performance assessment and improvement processes focusing on the core measures data collection and abstraction functions," reports **Ann Watt**, MBA, RHIA, associate project director in the division of research with the Joint Commission and the study's principal investigator.<sup>1</sup>

She points to a lack of resources for collecting and analyzing core measure data, which forces quality managers to come up with creative solutions to meet the requirements.

"In many cases, additional resources for this function have not been

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made available. Instead, this has been heaped onto the quality manager's other responsibilities," Watt says.

A strong incentive for improving core measure data is the knowledge that the general public and other organizations will have access to them, with the implementation of the National Voluntary Hospital Reporting Initiative — an effort led by the American Hospital Association, the Federation of American Hospitals, and the Association of American Medical Colleges to provide information about hospital quality to the public.

"Who knows how these data are going to be used? And so it's very important that hospitals have the assurance going forward that their data

are accurately represented in these public releases," Watt says.

More than 1,700 hospitals have agreed to share data for the initiative's 10 quality measures. The first set of clinical process data was publicly released in October 2003, giving the general public access to hospitals' performance in treating heart attacks, heart failure, and pneumonia.

In addition, the Joint Commission will begin making data on heart attack, heart failure, pneumonia, and other measures publicly available this summer as part of its new *Quality Reports*.

There is a significant potential problem with consistency of core measure data between facilities, notes **Steve Osborn**, CPHQ, vice president of clinical quality and patient safety at Saint Vincent Health Center in Erie, PA.

"For instance, when you abstract what time the patient arrived at the hospital, you're supposed to use the first time in the chart. That could be a triage time or could be a registration time," he says. "Is every hospital doing this the same way? Undoubtedly not."

Still, it's in your own best interest to improve accuracy of core measure data, Watt urges.

"Hospitals spend a fair amount of time and resources collecting these data. Presumably, they would like to know they're accurate if they are going to be making clinical, system, and management decisions based on those data," she says.

If your data aren't accurate, you may be allocating resources to the wrong areas, Watt warns. "People are focusing ever more limited resources in areas that are not of concern and are missing areas of clinical improvement and real impact on the clinical care they give," she says.

To improve the quality of core measure data, use the following strategies:

- **Develop a formal interrater reliability process.**

The Joint Commission study revealed that hardly any of the hospitals conducted rigorous interrater reliability studies. At regular intervals, a random sample of your cases should be re-abstracted by an independent reviewer and the results compared, Watt says.

"That seems, at this point, to be the most effective way of assessing core measure data," she says.

The reviewer doesn't have to be an external person, but Watt acknowledges that many hospitals have only one quality person on staff.

"Some hospitals are being creative by swapping cases to review if they are part of multi-hospital systems, or if they have particularly

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### Editorial Questions

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cooperative consortiums in their region," she reports.

Watt points out that, in sharp contrast to the lack of formal assessment of core measure data, 75% of the hospitals in the study reported that they routinely formally assessed their coding performance.

You should pay equal attention to core measures, since their impact is going to be every bit as significant, advises Watt, adding that before diagnosis-related groups came into existence, there wasn't a major concern with medical records coding because it had nothing to do with hospital reimbursement.

### ***Education is twofold***

"Nobody back then was assessing the accuracy of their coding. But suddenly, it had huge consequences and became a very important function," she says. "I suspect that something similar is going to happen with core measures."

- **Educate clinical staff.**

A twofold goal at NorthEast Medical Center in Concord, NC, is educating clinical staff about the methodology behind the indicators and soliciting input from caregivers for strategies to make the data more accurate, says **Pam Spach, RN, BSN, CPHQ**, director of performance improvement and disease management.

"Improving the quality of core measure data submitted to JCAHO is a very important goal for us," she says. "It is quite clear that those with the most influence to effectively improve our outcomes are those closest to the point of care."

These steps were taken to educate clinical staff about core measures:

1. Clinical directors give one-on-one inservices to unit staff about about the core measures and how they are being addressed. "They focus on the clinical practice guidelines which address all of the indicators for the core measures we are following," Spach says.
2. Quarterly updates on core measure data are given at medical staff, leadership, quality council, and board meetings.
3. Core measure results are posted on the hospital's web site.
4. Clinical processes have been "hard-wired" to meet specific core measure goals, such as giving pneumococcal vaccine to pneumonia patients.

"This was established as a nurse-driven

protocol, as opposed to being dependent upon physician order," Spach reports. "Our results have dramatically improved, increasing from 50% to 93% over the past year."

- **Make sure that abstracted data are collected consistently.**

Abstracting staff at Saint Vincent Health Center discovered a problem while measuring timeliness of the first dose of antibiotics for the pneumonia core measures.

"There are other core measures that have timeliness as a component, but this one is the most particular because the Joint Commission is actually tracking average times," Osborn explains. "You need to have times under four hours, which actually isn't all that easy. Most of your patients will be under four hours, but a lot will be close to that or over that."

Therefore, getting the exact time is very important, as compared with tracking whether patients receive aspirin within the first 24 hours, which requires only a yes or no response, he says.

When staff began collecting data, they simply documented the first time that they found on the chart, Osborn points out. "But we found out that antibiotics could be located in any one of four different places in the medical record." Those places were:

1. The medical administration record, where the time is rounded to the nearest hour. "It would say the patient got [cephalosporins] at 1400. Well, there is almost an hour difference between 1331 and 1429," he adds.
2. The time the medication is removed from the automated medication dispenser. "This is not exactly the time that the medication was administered, since the nurse might have gotten waylaid, especially in the ED," Osborn explains.
3. The nursing notes. "Nurses can enter a time there, but they are often writing the note hours after the drug was administered," he reports.
4. The ED worksheet, which documents physician orders.

"When we started collecting data, we found two or even three different times for the same drug," Osborn says.

"So the question is, which is the most correct, and are any guaranteed to be correct? It turned out that there are problems with each and every one of them," he adds.

To address the problem, the abstracting staff met with direct caregivers and decided that the

automated medication dispenser time is the most accurate. "It may be slightly off, but at least it is consistent, as compared with nursing notes, which are often done after shift, when they go back and pull charts and document things they did hours ago," Osborn explains.

- **Make sure patients are not falling through the cracks.**

When case managers began collecting real-time data for pneumonia core measures, they reported that they were following 95% of patients.

"It turns out they had data on 88 patients in five months, but our data showed 207 pneumonia patients in the same time period," he says.

The discrepancy was discovered when the abstractors reviewed the patients after discharge based on ICD-9 codes as required by the Joint Commission, and came up with a total of 207 pneumonia patients, as opposed to the 88 reported by the case managers.

"So the case managers may be actually influencing care on 40% of the patients, as opposed to 90%," Osborn says. "For us, it was a big surprise. We thought we would be doing great on these measures, but 40% are still getting the same care they always got."

It was determined that patients were falling through the cracks for a variety of reasons:

1. Some patients were admitted on a Friday and discharged by Monday morning. "The number was higher than they thought it would be," Osborn says. "It begs the question, why

are we only case managing Monday through Friday?"

2. Some pneumonia patients were admitted to the telemetry unit because of concerns about cardiac status. This was resolved by making the cardiac case managers aware of the pneumonia initiative, Osborn says.
3. Some patients were coded after the fact as having pneumonia. "This raises the issue that all these initiatives are driven by coding data, and coding is not reflective of actual patient status," says Osborn. To address this, one of the physician team members reviewed a sample of the charts and met with coding staff. "The presence of the pneumonia code was generally found to be accurate when our physician sat down and reviewed these, but there was a debate as to whether that code should have been in the principal diagnosis," he explains.

The problem is that in addition to pneumonia, the patient may have been treated for other conditions, such as congestive heart failure. "Coding requires you to select one of those codes to be the principal diagnosis, the principal reason for the patient coming to the hospital," Osborn says. "And that is not always apparent, even by coders reading all the documentation as faithfully as possible."

To be included in the collection of core measure data, the patient needs to have a principal diagnosis of pneumonia, he explains. "Perhaps the discharge summary wasn't dictated at the

## Use tools to improve core measure results

**D**o you want to improve both core measure results and the consistency of patient care at your hospital? Your No. 1 goal should be to find ways to make it easier for caregivers to make the correct choices, says **Steve Osborn**, CPHQ, vice president of clinical quality and patient safety at Saint Vincent Health Center in Erie, PA.

Here are two effective strategies for the pneumonia, congestive heart failure, and acute myocardial infarction core measures being collected by the organization:

1. **An order set for pneumonia is used.**

The order set ensures that clinicians will collect blood cultures, give the correct antibiotic, and administer the pneumococcal vaccine, Osborn says. "If the physician follows it, they will cover every one

of the core measures. So just by the physicians using the order set, we are influencing that the right thing will happen."

2. **The American College of Cardiology's Guidelines in Applied Practice system is utilized.**

For both the congestive heart failure and the acute myocardial infarction core measures, pre-printed order sets were created and educational programs were developed for patients. "We've created educational tools to help the team make sure that the patient gets the right education," Osborn explains.

The Guidelines in Applied Practice system includes an individualized patient contract given to all patients upon discharge. The contract is filled out and signed by the patient, and addresses medications, smoking cessation, and lifestyle changes. "This makes the patient accountable for managing the disease," he stresses.

"That is a great thing to do for your patient, and it also indirectly helps you with your core measures." ■

time they were doing coding, and the answer would have been there. Or maybe one doctor was focusing on pneumonia and another was focusing on the congestive heart failure, so it's not really clear to the coder," he says.

The case managers had three goals: To ensure that pneumonia patients got the blood culture on admission and received one of the selected antibiotics, encourage staff nurses to hang the antibiotic IV as soon as possible, and make sure that patients got appropriate vaccines.

"So if the case managers are there and are aware of who the patients are, they can influence some of the data, but it turns out they may not be seeing all of them," Osborn says. "My guess is that hospitals trying to abstract in real time are going to have the same problems we had and will find out after the fact that they are missing significant chunks of patients."

Because of this, Osborn says, to accurately meet the core measure requirements, data collection must be abstracted post-coding, which for most hospitals will be after the patient is discharged.

"We are not convinced that there is great value in collecting data in real time," he says. "However, we strongly believe that case managers or other staff need to be following these patients in real time and influencing the care they receive."

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*A tool kit including a sample Heart Attack Discharge Form can be downloaded at no charge at the American College of Cardiology web site: [www.acc.org](http://www.acc.org). Click on "Guidelines in Applied Practice," "Guidelines Applied in Practice Program," "Acute Myocardial Infarction in Michigan," "Download the AMI GAP Tool Kit."]*

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## Program helps patients who take anticoagulants

*Patient education helps avoid adverse outcomes*

While an elderly man on warfarin was waiting to get blood drawn at his physician's office, he was handed some educational materials about the drug. "The packet included warnings that the shape of the pill may change based on the manufacturer of the drug, but the color will never change," says **Kim Shields**, RN, clinical systems safety officer and team leader for the Virtual Anticoagulation Project at Abington (PA) Memorial Hospital.

After the prescription was filled, the man noticed that the pills, which always had been pink, were white. The pharmacy had mistakenly given the man 10 mg pills instead of the 1 mg he was prescribed, which could have resulted in a potentially fatal hemorrhagic event.

This "near-miss" scenario is just one success story from an innovative program at Abington Memorial, where a "Virtual Anticoagulation Clinic" has significantly reduced the morbidity and mortality of patients taking the anticoagulant drug warfarin. As a result of this successful initiative, the organization won the 2003 John M. Eisenberg Patient Safety Awards, given jointly by the National Quality Forum and the Joint Commission on Accreditation of Healthcare Organizations.

The medical, pharmacy, physician network, and performance assessment departments at the facility implemented a web-based program for outpatients that improves primary care physician management of patients taking warfarin.

The pilot study data for the program show that patients in appropriate therapeutic range improved from 51% to 70%, reports **Keith Sweigard**, MD, the facility's chief of internal medicine.

Here are key aspects of the program:

- **Staff at physician offices are trained on an ongoing basis.**

Staff at 29 physician practices have received initial training from the facility's performance improvement nurse, consisting of a three-hour class. Each coordinator is given a self-learning packet and passes a competency test, with ongoing education provided via newsletters and intermittent classes.

Additionally, office performance is continuously assessed and feedback given to the clinicians, Sweigard says. "Networks can monitor each office's performance and then use their resources to identify issues that may be causing less than optimal anticoagulation rates," he adds.

For example, when Sweigard noticed that one practice had failed to input patient international normalized ratio (INR) levels in a timely fashion, he arranged for one of the senior coordinators to work with the office to correct the problem.

"It can be difficult to oversee so many practices when you are not physically present all the time," Shields points out. "These reports are our tools to assess the process."

Dosing instructions provided to the clinicians are standardized and based on national guidelines, Sweigard explains. "This has resulted in improved results with less risk of bleeding or clotting," he says.

- **Potential adverse outcomes are avoided with patient education.**

Patients are educated on how to handle issues such as missed doses and drug interactions. While still in the hospital, patients receive an educational packet, including a one-page information sheet, available in English, Korean, and Spanish.

"We tell patients to put it right on the refrigerator because it lists the essentials they need to know to be safe," Shields says.

Patients also are given a sheet listing prescription and over-the-counter medications, herbal supplements, and vitamins that interact with warfarin.

"One of the biggest problems with warfarin is that so many drugs interfere with the way it works, by either raising the INR or lowering it," she says.

"So patients have a tool to bring with them to the pharmacy or other health care providers that informs them of drug interactions," Shields adds.

Patient education about warfarin often is sorely lacking, and this can have a devastating impact on patient safety since it is a difficult drug to manage with a narrow therapeutic index, she says.

If blood levels are too high, there is a risk of

major bleeding, whereas levels too low can fail to protect patients from blood clots, Shields explains.

"We promote that the patient has to be part of a team. They have to be very knowledgeable, because they are the first ones to alert us that something is not right," she says.

The web site allows patients to log in and see their own health record for warfarin therapy, Sweigard says. "At discharge, patients are told that their INRs and warfarin dosing will be faxed or entered into the program before discharge," he says. "Patients with mechanical valves may enter their own INR values and receive computerized decision support."

- **Patient knowledge is routinely assessed.**

Following a teaching session, patients are asked 12 questions to determine their knowledge about warfarin, so that educators can "drill down" during future sessions on the areas that require reinforced education. "It's one thing to educate someone, but that is only as good as the patient's level of comprehension," Shields says.

An education documentation record is kept in the patient's chart at the physician office. "When a patient is having blood drawn, the coordinators can refer to the documentation record that indicates where additional education is still needed," she adds.

- **Point-of-care testing is offered.**

Dosage levels of warfarin are determined by blood test results reported as INR levels, and maintaining blood levels within therapeutic range is essential, as there is a narrow window of efficacy and safety, Shields emphasizes.

Therefore, the safest and best way to manage warfarin is with point-of-care testing, which is being implemented at one of the larger physician practices, she reports. "Instead of having venous blood drawn, it will be a finger stick with results available in one minute," she says.

The patient's dose can be changed immediately if needed, with no lag time or having to call the patient back, she says. "We can act on INR results 24 hours sooner than if we had to send the blood work to a lab. It also requires less blood and is a lot less painful," Shields continues.

- **Patient care is individualized.**

Patients are taught that foods high in vitamin K, such as leafy green vegetables, help the blood to clot and therefore can affect INR levels. "We tell patients, 'You can make modifications to your diet — just tell us in advance so we can adjust your warfarin dose as indicated,'" she says. "If patients have a glass of wine with dinner every

night, we adjust the dose based on that.”

This provides a better quality of life, so patients don't feel that the drug controls their life, Shields continues.

“The most important thing is consistency. If patients are happier, they are more compliant and safer,” she says.

- **Important information is pushed to the front page of the web site.**

Patients who are late for follow-up blood tests and patients who should be off warfarin are listed on the front page of the web site, Sweigard notes.

“Patients have remarked that they feel more closely watched, which translates to improved patient satisfaction and safety,” he says.

While many patients are on warfarin for life, others are only supposed to take the drugs for several months after orthopedic procedures such as total hip replacements. Sometimes, these patients would end up being on the drug longer than prescribed.

“You don't want to keep patients on warfarin when they don't need to be,” Shields says. “So if

we know there is a stop date, we put that in the computer.” Previously, there was no way to track when patients were late in getting their blood work drawn, she states.

“We could have patients who didn't come back for months, and we didn't know it. Now with this new computer system, there is a screen that lists the patients, including the number of days late and their last INR results. This allows coordinators to contact the patient to schedule an appointment for overdue blood work.” Shields adds.

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## Electronic systems can promote safety, study says

*Electronic records facilitate error prevention*

**A**re you lobbying for your organization to make a capital investment in information technology systems? A new report from the Washington, DC-based Institute of Medicine (IOM) may give you added ammunition.

According to the IOM report *Patient Safety: Achieving a New Standard for Care*, information technology systems capable of collecting and sharing patient medical records can have a dramatic effect on quality.

These systems should be part of a national network of health information that is accessible by all health care organizations and includes electronic patient records, secure platforms for the exchange of information among providers and patients, and data standards that will make health information uniform and understandable to all, according to the committee that wrote the report.

“Our goal is to create a new standard of care,” says **Paul C. Tang, MD**, committee chair and chief medical information officer at Palo

Alto (CA) Medical Foundation.

“In aviation, when a plane crashes, you investigate. In some cases, that is like the quality world — when an outbreak of infection occurs, we determine what caused it,” he explains.

In addition to learning from past incidents, there should be a renewed emphasis on preventing them from occurring in the first place, Tang adds.

“When we talk about mistakes, we typically focus on errors of commission. But we also have a lot of errors of omission — things that if we were to do, we would have better outcomes or less infections,” he says.

A 1999 IOM report estimated that up to 98,000 deaths occur every year in U.S. hospitals as a result of medical errors.

The goal is to shift the emphasis of patient safety programs from a strategy of reporting infections or injuries after they have occurred, to one of prevention aimed at providing safe and effective care in the first place, Tang says.

“That is where we believe electronic health record systems play a role,” he says. “We are interested in having people make the right decisions the first time. So you can think of infection control as infection prevention instead of infection reporting.”

Since every patient has contact with a number of providers, the lack of ability to communicate data among those caregivers and their computer systems is a major impediment to patient safety, Tang emphasizes.

"One of the main reasons we don't communicate well is because there is no standard way of connecting systems and transmitting data," he says. "In order to improve overall quality, we think you need these electronic systems."

Currently, infection control reporting requires staff to make the effort to send a report to the quality manager, Tang says.

"Imagine a world where instead of asking people to fill out a separate report, the data system was able to produce a quality report as a by-product of the care process," he says.

"Basically, when the computer detects a post-op infection, it can send a message automatically to the quality manager," Tang points out.

### **More accurate data available**

You also get more accurate data, he adds. "Instead of infections being reported only when someone remembers to take the time, you will have much closer to 100% of the infections reported."

One of the major obstacles to implementing electronic systems is financial, Tang acknowledges. "It does take a lot of money; but if you spend this money, it not only helps you with quality, it also helps you save money.

"The same system that will help quality, reporting, and patient safety will also help cost," he says.

While working at Chicago-based Northwestern Memorial Hospital, Tang recalls Joint Commission surveyors being very impressed by the facility's electronic record system.

"And in a very short time, you won't be able to keep up with the regulations on paper — it will be too much." There is a definite trend in organizations switching to electronic records, Tang states.

"The benefits are becoming clearer. It's almost becoming a necessity for doing business in this industry," he says. "It's like banking; you can continue to courier money, but it's just a whole lot easier to do electronically."

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*A copy of the Institute of Medicine report on patient safety can be ordered at the National Academies Press web site: [www.nap.edu](http://www.nap.edu). Click on "Medicine/Public Health," "Patient Safety: Achieving a New Standard for Care." Or contact National Academies Press, 500 Fifth St. N.W., Lockbox 285, Washington, DC 20055. Phone: (202) 334-3313 or (800) 624-6242. E-mail: [zjones@nas.edu](mailto:zjones@nas.edu).] ■*



## **Applying the principles of process variation**

*Realize improvements in efficiency and outcomes*

By **Patrice Spath, RHIT**  
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During the 1980s, U.S. manufacturers began to study why the quality of Japanese products was much better than for those made in the United States.

The differences related to their adoption of methods derived from the theory of process variation. Whereas U.S. industries were satisfied if products fell within a range of acceptable standards, the Japanese focused on making things more alike.

By reducing variation in the production process, they were able to create products less likely to fail. Today, the theory of variation is being applied to the products and services of many U.S. industries, including health care.

When the principles of process variation are applied to health care activities, the result can be significant improvements in efficiency, customer service, and patient outcomes.

To appreciate how this happens, let's explore what the theory of variation means in practice using a simple example:

Suppose the rate of patient falls on a medical unit goes up in one month. What would happen? In an authoritarian climate, staff members in the offending unit are warned to be more careful with patients. However, from what we now know

## Patient Falls by Location 4th Quarter 2003

<u>Location</u>	<u>Number</u>
2North (Medical)	10
2South (Medical)	9
3North (General Surgery)	12
3South (Orthopedic)	6
Critical Care Unit	9
Observation Unit	10
Obstetrics	6
4North (Psych)	12
4South (Skilled Nursing)	10
Emergency Department	10
Outpatient Medical Clinic	9
Outpatient Surgery Clinic	10

Source: Patrice Spath, RHIT, Brown-Spath & Associates, Forest Grove, OR.

about processes, the variation in patient falls is almost entirely due to the systems of patient care, not individual actions.

If the rate of falls in that medical unit is plotted over time, you most likely will find that the number stays within a predictable range, unless something in the system of care changes.

This is the first principle of the theory of variation — we should expect things to vary because they always do.

### **Variation happens**

Health care managers, however, often act as though they do not expect things to vary. They set targets or standards and react to people's failure to meet them. **The table above** illustrates patient fall data for one organization. The number of patient falls in each location is reported for a three-month period.

How would managers typically react to the data shown in the table? Would they develop a plan of action for reducing falls on 3North and 4North and give prizes to staff members in 3South and Obstetrics?

The theory of variation can help managers determine how best to interpret and act on the information.

If these same data were plotted on a control

chart, you'd find that the process is in control and predictable. (See graph, below.)

Data plotted on the control chart illustrate that the number of patient falls is stable but exhibits wide variation. The control chart shows that the number of falls could be as high as 16 or as low as three. An average of 9.4 is most likely.

These are the results that should be expected from the patient fall prevention practices currently used by staff members. The control limits (3 and 16) are derived statistically from the variation in the observed results.

This is the second principle of the theory of variation — understanding variation will tell us what to expect. If nothing changes in the patient fall prevention practices, the organization can expect falls in each location to be as low as three or as high as 16 per quarter, but more often the number will be right around the mean (9.4).

### **Understand variation**

An important question is WHY does the rate of performance vary so much? To find the answer, we have to look at the techniques used to prevent patient falls. A simple way to do this is to ask the staff members the following questions:

- What do you need to keep patients from falling?
- How well do these practices work?
- What gets in the way of preventing patient falls?
- How much of your time is consumed by things that get in the way of preventing falls?

Once the organization knows more about the causes of variation, actions can be taken to reduce the number of patient falls in all locations.

## Control Chart of Patient Falls by Location, 4th Quarter 2003

Upper Control Limit = 15.9

Mean = 9.4

Lower Control Limit = 2.9

Source: Patrice Spath, RHIT, Brown-Spath & Associates, Forest Grove, OR.

If managers want to reduce patient falls, they would be far better off working on the causes of the problem rather than treating individuals or work teams as though they were different.

If everything that helps prevent falls was instituted throughout the organization and everything that hinders was removed, think how the overall rate of patient falls could be reduced.

This is the third principle of the theory of variation — understanding variation leads to improvement.

By investigating the causes, people can work on implementing actions that will reduce unit-to-unit variation and hopefully bring the overall rate of incidents down.

### ***React the right way***

When health care managers don't understand the theory of variation, they can unknowingly make the situation even worse.

For example, when performance differences seen each reporting period are viewed as being caused by individuals, actions are taken at the individual level. In this example of patient falls, the director offered to throw a party for 3North and 4North staff members if they could get the rate of patient falls down to 9 or less next quarter.

What did staff members do? They stopped reporting patient falls, of course. In turn, this action caused further problems for the organization because it no longer had a good database of information about the types and causes of falls.

Which takes us back to the purpose of measuring process variation: Create processes that are less likely to fail. When managers react the wrong way to measurement data, things can get worse.

The theory of variation should be at the heart of world-class quality in all industries, including health care. ■

## **Involve key players to address infection control**

*Hand washing should be across-the-board priority*

There is abundant evidence that preventing deadly health care-associated infections is a top priority for the Joint Commission on Accreditation of Healthcare Organizations.

In addition to implementing new infection control standards that will take effect in January 2005, and evaluating compliance with infection control standards during triennial surveys, the Joint Commission has included infection control as a special focus area during random, unannounced surveys.

The Joint Commission also made compliance with the Centers for Disease Control and Prevention's (CDC) recently updated hand hygiene guidelines one of the 2004 patient safety goals.

The new goal for 2004 also requires organizations to manage as sentinel events all health care-associated infections that result in death or major permanent loss of function.

It's important to note that the only new patient safety goal involves reducing the risk of health care-acquired infections, points out **Matthew Rosenblum**, chief operations officer for privacy, quality management, and regulatory affairs for New York City-based CPI Directions Inc., a consulting firm that specializes in quality management and compliance.

"The Joint Commission is telling us very clearly that this will be a priority focus area," he says.

"Infection control is right up there with patient safety and medication management," Rosenblum explains.

### ***Preventing infections and resulting deaths***

The CDC estimates that 2 million individuals acquire an infection each year while being treated in hospitals for other illnesses or injuries and that 90,000 people die as a result.

He gives these infection control strategies:

- **Measure hand washing and sentinel events at a minimum.**

The data you collect and analyze will depend on which areas your organization has identified as needing improvement.

"Data reporting and measurement is a continuous feedback process, so you should focus on high-risk areas where you may have fallen short in the past," Rosenblum says.

However, because the new safety goal specifically addresses hand washing and sentinel events associated with infection control, these should be across-the-board priorities, he advises. "Our advice is to monitor at least those areas."

Here are some examples of areas to measure:

1. How well are staff practicing hand washing?
2. How well are staff using personal protective equipment?

3. How well are staff implementing specific precaution and isolation procedures?
4. How well are staff implementing cleaning procedures for sterilization?
5. Ensure that staff are well-trained.

Pay close attention to the skill mix of staff, and be certain that they are trained well in infection control techniques, Rosenblum advises.

"It's one thing to have a great policy and procedure in place. It's another thing to have skilled and trained staff in place," he says.

- **Make sure you have adequate equipment needed to implement infection control procedures.**

"For example, for sterilizing surgical equipment with autoclaves, you need adequate numbers, and they must be in working condition," Rosenblum says.

- **Involve key people.**

Because the infection control standards cross over to many other standards, you must develop compliance strategies along with key people from affected areas, both when you are implementing policies and procedures and for continuous quality improvement activities, he recommends.

"If a hospital isn't doing well in infection control, it's going to impact in a negative way on many other areas," Rosenblum adds.

For example, infection control is a factor during any redesign or construction at your facility, as there may be asbestos and lead issues.

"In that case, you would certainly need somebody from housekeeping or safety involved," he says.

"Or if the infection control issue involves sharps disposal, you will need people responsible for supervising nursing or physician practices," adds Rosenblum.

Similarly, if you identify a lack of adequate training for a process related to infection control, such as proper use of an autoclave, human resources and nursing both would be instrumental, he says.

"This is the one area that really cuts through a lot of other areas, and you need everybody on board," Rosenblum explains.

## CE questions

5. Which is recommended to improve the quality of core measure data?
  - A. At regular intervals, a random sample of your cases should be re-abstracted by an independent reviewer and the results compared.
  - B. Direct caregivers should not be involved in the data collection process.
  - C. Case managers should not attempt to affect real-time care processes.
  - D. Data collection must be abstracted before coding.
6. Which is part of a program to improve outcomes for patients on anticoagulants at Abington (PA) Memorial Hospital?
  - A. Only venous blood draws are used.
  - B. Patients are instructed to avoid any modifications in diet.
  - C. All blood work is sent out to the laboratory.
  - D. Point-of-care testing is utilized.
7. Which is a key finding of an IOM patient safety report?
  - A. Information technology systems do not have a significant impact on quality.
  - B. The Joint Commission discourages use of electronic medical records.
  - C. The lack of ability to communicate data between providers and their computer systems is a major impediment to patient safety.
  - D. Having computerized reporting of infections leads to inaccurate data.
8. Which is recommended to comply with new infection control standards from the Joint Commission?
  - A. All health care-associated infections that result in death or major permanent loss of function must be managed as sentinel events.
  - B. Infection control will not be an important area of focus until the new standards go into effect in 2005.
  - C. Hand washing only should be monitored if you identify a problem with infection rates.
  - D. Human resources staff are not affected by infection control.

**Answer Key:** 5. A; 6. D; 7. C; 8. A

## COMING IN FUTURE MONTHS

■ Learn how priority focus areas are identified by the Joint Commission

■ Help pharmacists comply with medication management standards

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■ Effective strategies for the periodic performance review

"Infection control is an area that is everybody's business," he asserts.

[For more information on the revised infection control standards, contact:

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