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Quality Improvement Report

Data collection strategies for The Joint Commission, CMS, and beyond

New guideline empowers patients and families to call for rapid assistance

'Oh my God, here's the cure'

Had **Sorrel King** been able to launch a rapid response team at the hospital where she watched her 18-month-old daughter, Josie, deteriorate and ultimately die, she is convinced her little girl could have been saved.

"There's no doubt in my mind; she would be alive," King says. "Numerous fresh sets of eyes would have seen her, and they would not have said, 'Oh, she's going home in two days; she'll be fine.' They would have picked up on a lot of things that other people didn't."

Instead, King pleaded with clinicians to do something, to no avail. Josie's eyes rolled toward the back of her head, her skin turned a pallid hue, and she seemed desperate for a drink of water.

Staff members at Johns Hopkins Hospital assured her Josie would be fine. On February 22, 2001, Josie died at one of the most renowned hospitals in the country from dehydration and misused narcotics.

Six years after Josie's death, King is hopeful that a new Joint Commission (formerly JCAHO) requirement will prevent other patients and families from suffering a similar fate. National Patient Safety Goal (NPSG) 16A calls on hospitals to rapidly respond when a patient's condition is quickly deteriorating. One of the implementation expectations for the new goal, A3, asks organizations to empower patients and their families to call for immediate assistance if they believe something is seriously awry.

> **"Don't let making the program perfect stall you. Start small and test it."**
> *—Beth Kuzminsky, RN, MSN*

Letting patients call for help

Full implementation of the 2008 NPSG is not expected until 2009, but one health system is already reaping success with a program that allows patients and families to send out an emergency SOS for help.

In 2005, The University of Pittsburgh Medical Center's (UPMC) Shadyside Hospital became the first health system to allow patients and families to activate rapid response teams.

The initiative, Condition Help, or Condition H, came about after **Tami Merryman, RN, MSN, FACHE,** vice president of the Center for Quality Improvement and Innovation at UPMC, attended an Institute for Healthcare Improvement (IHI) conference. IHI President and CEO Donald Berwick spoke at the gathering, along with King.

"When I first heard of rapid response teams, I was sitting on that stage with Don Berwick," King says. "My mind was going through these flashbacks to when Josie was in the hospital, and I thought, "Oh my God, here's the cure. Here it is.' "

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However, King took it one step further. "I stood up in front of the audience and said, 'I like this idea. Can a family member call a team? Can a patient initiate it?' " King says. "There was sort of this weird reaction in the audience, and a week later, Tami called and said, 'We're going to do this, Sorrel. Do you want to partner with us? Do you want to help us?' and I said okay."

Getting clinicians on board

King flew to Pittsburgh to talk to clinicians at Shadyside and offered support from the Josie King Foundation, which the hospital has worked with ever since.

Shadyside had its share of skeptics initially, according to **Beth Kuzminsky, RN, MSN,** staff associate for UPMC's Center for Quality Improvement and Innovation.

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Mother would have called for rescue three times

Sorrel King can think of three times she would have launched a rapid response team to rescue her daughter.

Josie King was admitted to Johns Hopkins Hospital in January 2001 with first- and second-degree burns after climbing into a hot bath. The 18-month-old recovered reasonably quickly and was moved from the pediatric ICU to the intermediate care ward, with the expectation that she would be discharged days later.

That's when King began to notice something was wrong. As she put her daughter to bed one evening, she noticed that Josie's eyes seemed to be rolling in the back of her head and her coloring was off. King called in a nurse, who told her everything would be fine, but King asked for someone else to look at her.

"That's probably the first time I would have called," King says. The second nurse, she recounts, also reassured her that Josie would be okay.

The second time King would have initiated a rapid response team was when she arrived the next morning at 5:30 and took one look at her daughter.

"I basically went down the hallway and screamed for help," King says. Josie received Narcan and was allowed to drink nearly a liter of juice. Verbal orders forbade narcotics to be given to Josie.

"The third time I would have called the rapid response team was when I saw the nurse walking over to give her the methadone," King remembers. "I said to the nurse, 'She's not supposed to get that. Why are you doing that? What's going on?' "

The nurse responded that the orders had changed.

"Josie's heart stopped as I was rubbing her feet," King recounts on the Josieking.org Web site. "Her eyes were fixed, and I screamed for help. I stood helpless as a crowd of doctors and nurses came running into her room. I was ushered into a small room with a chaplain."

Two days later, surrounded by her family, Josie died.

For example, some staff members worried that patients or families might call if they didn't like their food or their sheets needed to be changed. "There were some tough conversations in the beginning, and there was a lot of what if this and what if that," Kuzminsky says. "And my team respectfully listened to all the concerns. But Tami was firm in putting her foot down and said, 'If we paid attention to all the what-ifs, and don't just test and see, we're not going to get anywhere.' "

Then Kuzminsky and Merryman showed the staff members the Josie King video, the story of how Josie died. "That's the best weapon," Kuzminsky says. "You have people who are skeptical, and then you show this video, and at the end, most people are either teary-eyed or speechless. Then the question becomes, How do we make this happen? We know it's the right thing to do in our hearts."

Seeking input from families

The hospital also queried patients and families on the 24-bed cardiology units where it planned to pilot the program before launching Condition Help.

"They all absolutely said this is the right thing to do," Kuzminsky says.

Some staff members initially feared that families would deluge the system with calls for Condition H. Not so, says Kuzminsky. Since July 2005, when Condition H began, to mid-October 2007, 84 calls have been triggered by patients or families for rapid response teams.

"So for those folks who were concerned that Condition H might drain our resources and we might get 84 calls in one month, that just hasn't happened," she says.

When someone initiates a Condition H, the call goes through to a trained hospital operator. That person asks a few pointed questions and after it's identified as a true Condition H call, he or she activates the responding team pagers and makes an overhead announcement. Within minutes, the responding team arrives at the location of

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Doc recounts how no one listened to her during near-death experience

Alison Clay, MD, FCCP, is not only a staunch advocate for patient-centered care. She's a proponent of allowing families to launch rapid response teams.

Clay, a physician for a decade, knows firsthand how frustrating it can be to implore doctors to take action, only to be dismissed.

In summer 2005, Clay was stung by a bee, rushed to the hospital, and given 10 times the amount of medication she needed for her allergic reaction. She ended up on a respirator and perilously close to death.

"They routinely didn't listen to my insights," she told **Quality Improvement Report** last year. "So I started thinking, if they won't listen to me, and I'm reasonably well-respected among my peers, then what chance does any patient have?"

Clay now works with the Josie King Foundation's latest project, which distributes patient journals to hospitals. The foundation gives hundreds of journals to hospitals, including Duke University Medical Center, in exchange for a donation. Hospitals then pass out the notebooks to patients and families and ask them to record the details of their medical care. The goal is for patients to partner with their providers.

"I think families should absolutely be empowered to trigger rapid response teams," Clay says. "I think people are afraid of it only because they think families will use it inappropriately. In my opinion, that is related to an underlying fear, because if we are responding to family concerns, there would be no need to worry about use of a [response team] initiated by families that are using the system because they can't get anyone else to help."

Clay says she became involved with the Josie King Journal project after her family kept a journal while she was in the hospital.

"I found it extremely helpful to go back and read what happened the days I was comatose," she says. "Based on a small study I did with nursing and families at our institution, families seemed to like the idea, and nurses were not opposed to it."

New guideline

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the call. The hospital has created a decision tree for the operators to determine when to call. If they are even the slightest bit unsure, Shadyside encourages them to err on the side of calling.

"It's pretty crystal clear, though," Kuzminsky says. "There are only a couple of options for not calling a condition H," she says, such as if someone's TV isn't working or the patient doesn't like his or her food. "Other than that, they are clearly educated that if they're not sure or if there's any confusion, they lean on the side of calling a Condition H."

Making a difference

The Condition H team consists of the internal medicine house physician, a nursing supervisor, the patient relations coordinator if one is on duty, and the nursing floor staff.

A risk specialist analyzed all the Condition H calls during its first year. She estimated that had those calls not been made, 69% of them may have led to patient incidents, although Kuzminsky concedes that the figure leaves room for interpretation.

However, Kuzminsky does point to one patient for which Condition H absolutely made a difference.

The patient, visiting Pittsburgh from another state, came into Shadyside through the emergency department complaining of severe dizziness. After the hospital did some tests and blood work, it determined the woman suffered from extreme anemia, admitted her to an inpatient unit, told her she needed a blood transfusion, and gave her a consent form.

The physician who delivered the news towered over the patient's bed, and soon after he left, she called for a Condition H.

Turns out the patient had a rare form of adult leukemia, and when she had previously undergone a blood transfusion at a hospital in her home state, she suffered from kidney failure and had to have dialysis. "All she could think of was, 'Blood transfusion, last time I almost died. I'm never doing this again,' " says Kuzminsky.

After the patient called for help, another physician, Neena Reddy, MD, responded and spent 45 minutes answering her questions to alleviate her anxieties. In the end, the patient signed the consent form, had the blood transfusion, and was discharged the next day.

Educating patients and families

One area Shadyside continues to work on is assuring patients that they can call a Condition Help. "This is an ongoing area of opportunity. The truth is, there's a mix of families out there. And there's a group of families and patients out there who think, 'My doctor and my nurse know best, and the staff is very, very busy, and I'm not going to activate this,' " Kuzminsky says. "Then there's the population who thinks, 'If I use this Condition Help, am I going to be treated differently tomorrow?' "

To combat that problem, the hospital gives patients on admission a brochure, with Josie King's picture on the front, about Condition H. Nurses also explain to patients and families that they can trigger response teams. And signs informing patients of their rights to call for help are located throughout the hospital. Twelve UPMC hospitals already have Condition H, and all 13 acute care facilities will have it by January 1, 2008. Kuzminsky advises hospitals that might not have the resources Shadyside does to start small and let the calls for help determine who might be on the team. It may be an advanced practice nurse and one other person, or it could be another combination.

"As the calls come in, they will navigate who needs to be on your team," she says. "It will tell you if you need a physician. Don't let making the program perfect stall you. Start small and test it." ■

Editor's note: For more information about the Josie King Foundation, or to order the Josie King video, go to www.josieking.org.

Catheter removal key to infection prevention

Editor's note: This is the third part in a series about how to prevent some of the conditions CMS will no longer pay for beginning in October 2008.

To prevent catheter-associated urinary tract infections, make sure the catheter is sterile when inserted, maintain it properly to fend off backwash, and remove it as soon as possible. "What we find is that urinary catheter use is maintained longer than is necessary," says **Michael Bell, MD,** associate director for infection control for the Centers for Disease Control and Prevention (CDC). "The utility of the urinary catheter sometimes ends up being more for convenience than for absolute medical need."

Even though it might require more effort to get somebody out of bed and into the bathroom instead of leaving a catheter in, it's work well spent. Not only will hospitals prevent more patients from developing urinary tract infections, they'll avoid a financial penalty from CMS down the line.

Beginning October 1, 2008, CMS will no longer pay for the costs to treat catheter-associated urinary tract infections patients develop in the hospital. And although urinary tract infections are only one of the eight preventable conditions the federal agency will no longer reimburse hospitals for, it is the condition causing the greatest concern among clinicians.

A survey of more than 800 hospitals by Premier, Inc., found that 49% of respondents cited catheter-associated urinary tract infections as the most challenging of the eight preventable hospital-acquired conditions.

Present on admission

Many hospitals complain that many patients who enter their facilities, especially those coming from nursing homes, already have urinary tract infections, and unless they screen everyone on admission, they may end paying for a condition they did not cause.

Salah S. Qutaishat, PhD, CIC, FSHEA, an epidemiologist and director of infection prevention and control at Premier, Inc., in Charlotte, NC, disputes that argument. Qutaishat worked at an acute care facility before joining Premier. "Providers at acute care facilities claim that nursing homes place the Foley [catheter] and now we're stuck with it," Qutaishat says. "I experienced the exact opposite. I saw patients who came from nursing homes, and they came into the emergency room, and it was the standard practice to insert a Foley catheter even if there was no good clinical reason to do so. So the key in prevention is to make a clinical judgment on the need for a urinary tract catheter." It's also critical that the catheter is sterile and the skin is disinfected during insertion. "If you put it in and you get it dirty as it's going in, you're going to cause an infection," Bell says. Catheter insertion, Quitaishat emphasizes, should be handled with the same care as any other surgical procedure.

> **"It really boils down to that discipline of saying, 'Every single time, I'm going to do everything exactly right.' "**
>
> *—Michael Bell, MD*

Vigilant monitoring

Both Qutaishat and Bell agree that hospitals must continually monitor and assess whether the catheter can be removed. "It's very common that the catheter is inserted during surgery," Qutaishat says. "It's a normal procedure. Then the catheter is only discontinued when the patient is discharged. Not that many people in healthcare facilities look at that need for the catheter on a daily basis."

Bell suggests nurses and physicians routinely evaluate the need for the catheter. "I think that during every shift the question should be raised," Bell says. "This person has this catheter. Is it still necessary, and if it's not, do I have the authority to remove it? Otherwise, can I call the clinician in charge and ask for permission to remove it?"

Other preventable infections

In addition to catheter-associated infections, CMS

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Catheter removal

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will also no longer reimburse hospitals for vascular catheter-associated infections and surgical site infections—mediastinitis after coronary artery bypass graft surgery.

Many of the same guidelines to prevent urinary tract infections also apply to vascular catheter-associated infections, Bell says. "We have very good evidence that careful adherence to proper insertion techniques, appropriate maintenance, and early removal all contribute to reducing the rate of bloodstream infections related to those catheters," Bell says. A central-line bloodstream infection doubles a patient's risk of dying. The message, Bell says, is that nothing new or special needs to be done to prevent such infections. What must be done is to follow the established guidelines every time, every day.

"The problem here is with very busy hospitals and limited staffing, it's easy to let some of these things slip," Bell says. "It's too easy to say, 'Oh, I'll get the catheter out tomorrow, or the next person on the next shift will do it.' It really boils down to that discipline of saying, 'Every single time, I'm going to do everything exactly right.' "

Bell understands the anxieties many hospitals have about the new CMS policy, but he calls the monetary impact of the new rule "overblown."

"I think this is a philosophical step. CMS is quite aware that it's not going to make a huge difference in the amount of money it pays out. But at the same time, it is sending a very clear message that these outcomes matter, and that it wants the folks concerned with the bottom line of the healthcare facility to be as concerned as the folks on the front line." ■

Editor's note: Go to www.cdc.gov/ncidod/dhqp/gl_catheter_assoc.html *for more information.*

Five other conditions for which CMS will no longer pay

The five hospital-acquired conditions not mentioned in the main story that Medicare will no longer reimburse hospitals for beginning October 1, 2008, are:

1. Serious preventable event—object left in surgery
2. Serious preventable event—air embolism
3. Serious preventable event—blood incompatibility
4. Pressure ulcers
5. Patient falls

After January 1, 2008, CMS will send letters to hospitals reminding them that they need to send the federal agency proper documentation. Beginning April 1, 2008, claims submitted to CMS that don't document conditions present on admission will be returned to the hospital—unpaid. Organizations will receive their reimbursement only if they resubmit their claims with the proper data and coding.

Prepare now for anticoagulation requirement

Even though hospitals have all of 2008 to prepare for the new National Patient Safety Goal (NPSG) requirement for anticoagulation therapy, they had better start preparing now or face a rocky road at survey time.

"If you only do planning for 2008, when it comes January 2009, when you're expected to have a house-wide, fully operational anticoagulation program, you're just not going to get that done, unless you start earlier," says **Kurt Patton, MS, RPh,** former executive director of accreditation services for The Joint Commission (formerly JCAHO) and principal of Patton Healthcare Consulting, LLC, in Glendale, AZ.

The new requirement is NPSG 3E, which calls on hospitals to reduce the risk of patient harm associated with anticoagulation therapy. The requirement will be phased in throughout 2008, with full implementation expected by January 2009.

As soon as possible, Patton advises, hospitals should ask themselves:

- How are we going to meet the 2009 expectations?
- Who is going to be involved?
- How are we going to get our committees involved in developing their processes and approving their processes?
- How are we going to get the medical staff involved?

"There's just not going to be enough time in the fourth quarter of 2008 to do this," Patton says.

For example, one expectation is that hospitals have premixed anticoagulation infusions for every patient.

"By and large, most hospitals probably do that, except for the ED [emergency department] or ICU," Patton says. "Here, there is no exception. You have to have it for the ED; you have to have it for the ICU. Get those premixed infusions to those locations."

The requirement also stipulates that patients receive warfarin in accordance with established monitoring procedures. That means hospitals have to have a clinical practice guideline that talks about getting a baseline International Normalized Ratio (INR) test. They also have to set up some frequency for routine INRs and processes for when a stat INR is drawn, Patton says.

"That really is going to involve a lot of medical staff discussion about which clinical practice guidelines are the best and what's appropriate," he explains. "It's clear that ad hoc, individual decision-making isn't going to be enough to meet the safety goal."

Hospitals will also need to set up a team that includes nursing, pharmacy, medical staff, and the dietary department to determine how the anticoagulation processes will work. Most of the expectations of the anticoagulation requirement will pose a challenge to hospitals because they are all new, Patton says.

"But I think the ones about developing the clinical practice guidelines and the monitoring procedures

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Timeline to be phased in

Unlike in previous years, the new anticoagulant requirement will be phased in throughout 2008, with full implementation expected by January 2009. The timeline expectations are as follows:

1. Healthcare organization leaders assign responsibility for development, testing, and implementation by April 1, 2008
2. A plan is developed by July 1, 2008, to identify resources, responsibilities, and a timeline for full implementation by January 1, 2009
3. Pilot testing begins in at least one clinical unit by October 1, 2008
4. The process is fully implemented by January 1, 2009

Even though the implementation expectations will be phased in, hospitals that wait until January 2009 to have a full process in place will likely face a requirement for improvement if they've failed to meet one of the timeline expectations.

Anticoagulation

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for both warfarin and heparin will be the most difficult, because they involve a lot of decision-making and consensus-building," he says. "Those will probably be the most challenging—more challenging than even some of the operational issues."

One operational issue facilities may struggle with is developing a process to notify the dietary department of all the patients who are on warfarin. "That sounds easy, but if you're not doing it today, how are you going to do it [in January 2009]?" Patton says. "Are the nurses going to do it? Are the pharmacists going to do it? Is dietary going to go up and review every chart?"

If surveyors see a patient is on warfarin when they're doing tracers, they will likely look to see if a dietary consult has been conducted. The Joint Commis-sion will also be checking to see whether patients receive adequate education about dietary restrictions on discharge—and that means more than just jotting down in the chart that you handed a patient a brochure.

"Often, the surveyor will ask the patients or the family about the dietary restrictions and if they remember what they were told," Patton says. "A lot of what we do in healthcare is we hand a brochure to people and we assume they have absorbed it."

In 2008, Patton says, "there will probably be very few [requirements for improvement] and some complacency among hospitals." The best model to learn from, he says, is the medication reconciliation NPSG. Hospitals were given all of 2005 to prepare, but were still refining their processes when the goal took effect in 2006. As a result, noncompliance soared to 35% that year.

"My advice is to start early," he says. "When you look at the complexity of this safety goal, it could become the next medication reconciliation." ■

Editor's note: Patton will speak about the new anticoagulation requirement during a December 12 HCPro audioconference. For more information, go to www.hcmarketplace.com.

What will be expected for anticoagulant compliance

For National Safety Inspection Goal 3E, anticoagulant therapy, The Joint Commis-sion (formerly JCAHO) released 11 implementation expectations (IE).

They include the following:

1. Develop a program for anticoagulant therapy management that allows you to individualize the care given to a patient. This IE uses A scoring.
2. Only use oral units and premixed infusions to reduce labeling errors. This IE uses A scoring.
3. Dispense warfarin to patients in adherence to your established monitoring policies if your organization is served by a pharmacy. This IE uses C scoring.
4. Put approved protocols in place for the use of anticoagulant therapy. Those protocols must be appropriate for the medication, condition, and risk for drug interactions in the patient's situation. This IE uses C scoring.
5. Use the International Normalized Ratio for patients starting, or currently on, warfarin. This IE uses A scoring.
6. Notify dietary services if a patient is taking warfarin; the service will implement its plan for such cases. This IE uses C scoring.
7. Use programmable infusion pumps when giving patients continuous IV heparin. This IE uses A scoring.
8. Establish and follow a policy for baseline lab tests involving heparin and low molecular-weight heparin. This IE uses C scoring.
9. Educate staff members, families, and patients about anticoagulant use. This IE uses C scoring.
10. Stress monitoring, compliance, diet, and the risk of adverse drug reactions to patients and families. This IE uses C scoring.
11. Evaluate your anticoagulant therapy safety practices in accordance with standard MM.8.10. This IE uses A scoring.

Confusion abounds about MM.4.10 standard

Although The Joint Commission (formerly JCAHO) suspended its interim action requiring retrospective review in the emergency department (ED), hospitals are still confused about how to comply with the standard and how to prepare for the future of medication management compliance.

The Joint Commission reverted back to the original language for MM.4.10's EP 1, requiring prospective review by a pharmacist in the ED. Exceptions to the standard include allowing a licensed independent practitioner (LIP) to administer medication without review while staying in the ED and allowing the LIP to define an urgent care situation, which would also allow for the administration of medication without review.

In October, **John Rosing, MHA, FACHE,** practice director of accreditation and regulatory compliance services at The Greeley Company, a division of HCPro, Inc., in Marblehead, MA, and **Col. Thirsa Martinez, PharmD, MPA, MS,** director in the U.S. Army's department of pharmacy, discussed MM.4.10 during HCPro's audioconference "MM.4.10: Understand and comply with new pharmacy review requirements." With The Joint Commission currently undergoing a process for creating new requirements for EP 1, including research, expert panels, and field engagement, Rosing expects The Joint Commission to allow organizations to adopt multilayered strategies to enhance medications safety.

This means, said Rosing, that hospitals may need to comply with a multilayered strategy that includes quality control and concurrent, prospective, and retrospective review by a pharmacist.

Regardless of whether a hospital has a 24-hour pharmacy, a thorough review process is absolutely necessary to ensure compliance with MM.4.10 now and in the future, said Martinez. "It should be a data-driven, standardized multidisciplinary process with or without a 24-hour pharmacist," she said. Use protocols, standing orders, and consent forms with screening questions for your review process. When using new protocol, she said, be sure to implement a Failure Modes and Effects Analysis to get rid of pitfalls before you make the protocol standard.

Although concurrent (i.e., real time) review is an ideal way to comply with MM.4.10, the most practical and best way is through the use of prospective reviews, which can be in the form of protocol, limiting floor stock, mandatory double checks, standardizing drug concentrations, and bar coding. Electronic records that can flag high-risk medications and/or patients also help the review process, said Martinez.

When you know a patient will be prescribed medication in the future, such as before an operation or consult, fax the pharmacy the patient's name beforehand for a prospective review, said Martinez. Another important step in your review process should be an accurate medication reconciliation process through the continuum of care.

> **"We want to make sure that from the very beginning of the process, the physician tells us what to continue, what to hold, and what to discontinue."**
>
> *—Thirsa Martinez, PharmD, MPA, MS*

"We want to make sure that from the very beginning of the process, the physician tells us what to continue, what to hold, and what to discontinue," said Martinez. "Then, through the process, we know the patient is transferred and discharged. All this helps when there is not a pharmacist available because everything is documented." And do not forget to ask about herbal medications, Martinez said.

Many quality control methods will help stop errors as well. Separating look-alike/sound-alike drugs and having monthly clinic inspections in all departments by the pharmacy will help maintain a safe medication environment. According to Martinez, retrospective review should be a standardized component of the quality improvement

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Standard

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plan. Use a representative sampling for a large quantity of data, Martinez advised.

A data collection process that includes an audit by department of medications a pharmacist did not review is critical, as is a review of your medication reconciliation process. When analyzing the data, pay attention as to how medication errors are detected and reported, as well as how computer entry mistakes happen, she said.

Problems in the PACU

Outside of the ED, Rosing identified the postanesthesia care units (PACU) and critical care units as problem areas. These units often are too generous with the exceptions of the standard—for example, broadening the definition of "urgent" too much. Also, in these units, physicians still need to be physically at the bedside (not in the department) if a prospective pharmacy review does not take place. "What seems to be happening here is that organizations are simply just too generous with the two exceptions under this standard, mainly LIP control or urgent situation," said Rosing. Overriding automatic drug dispensing machines or unfettered access to floor stocks seems to be the problem.

Illustration by David Harbaugh

"When the surveyor arrived, I understand you ran around looking for places to hide. That's not protocol, and besides, you're not a circulating nurse."

"The patient in PACU who is being given pain medication for pain that is present urgently, that's one thing," said Rosing. "But as a couple of hours roll by, and you're giving a second dose, for instance, of that same medication," this second dose for pain is not considered urgent and requires review.

Competency of nonpharmacists

MM.4.10 pushes hospitals to have pharmacy review of medications prior to administration, but with many hospitals strapped for resources, such a requirement is easier said than done. "Let's face it, there are many hospitals in this country that do not have the resources to pull this off," said Rosing, who estimates about two-thirds of hospitals do not have pharmacies open 24 hours a day.

Proving competency of the staff member in charge when a pharmacist can't be present is difficult. Usually, a nurse supervisor serves in this role and must determine a number of things, including allergies, appropriate use of drugs, and potentially harmful medication interactions, among other aspects. In short, said Rosing, your nonpharmacist must act as a pharmacist. Although it isn't easy, said Rosing, a well-defined and practiced process can help.

"A key point here . . . is that you create a list of the people who are qualified in this organization who are qualified to do this work, to review on behalf of the pharmacy, and ensure there's documented evidence of competence validation at the time this person was oriented at this job . . . and that there is ongoing validation of this competency," said Rosing. The requirements for competency can be found in EP 5 of MM.4.10.

The process in place when the pharmacy is unavailable should include clinical screenings for drug interactions and allergies and a possible third-party pharmacy contract for 24/7 coverage. Having these three things in place, along with retrospective reviews by pharmacist to keep the process on track, will help hospitals comply with nonpharmacist competency. ■

How to score detectability when doing FMEAs

Editor's note: This is the fourth in a series of articles about Failure Modes and Effects Analysis (FMEA).

The Joint Commission's (formerly JCAHO) standard PI.3.20 requires hospital centers to conduct at least one FMEA each year.

And to do that properly, you need to assess and compare the potential severity, occurrence, and detectability of each of the failure modes you identify. By multiplying the scores of those three together, you come up with a risk priority number (RPN), which helps you compare possible dangers in your facility.

Hospitals often feel more comfortable when they examine severity and occurrence when conducting FMEAs than they do with detectability. They sometimes even completely overlook detectability, a key factor in determining the overall risk of potential hazards in their organizations.

Our previous articles focused on how to score severity and occurrence, borrowing advice from **Ken Rohde,** author of the new book *Failure Modes and Effects Analysis: Templates and Tools to Improve Patient Safety*, published by HCPro, Inc., in Marblehead, MA. Rohde is also a senior consultant for The Greeley Company, a division of HCPro.

This month's story will explain how to score detectability.

"Detectability is a very important parameter that we need to get people thinking about as being a key part of our risk equation," Rohde says. (See the form on p. 12.)

Examples of detectability in a hospital include having two checks on high-risk medications, or one radiologist asking another for a second opinion about an x-ray. In both of these cases, we are making changes to increase our ability to detect a potential problem before it is too late.

Like severity and occurrence, detectability is scored on a classic scale from 1 to 10. A score of 1 would be something that is immediately apparent, such as a rainstorm. It is immediately obvious that it is raining.

"There are, though, those things that we will never know the answers to," Rohde says. "Sometimes, a patient might have a one in a million unknown reaction, or something happens and we just don't know why. In those cases, no amount of postmortem analysis or laboratory work is going to tell us what the specific answer is." In that case, this might be a detectability risk of 10, something that would be impossible to detect.

Hospitals, he adds, should focus on the areas between those two extremes.

For example, detectability scores of 2, 3, or 4 would require very formal, almost constant surveillance, such as telemetry or checking on a patient every few minutes or so.

"To achieve a detectability risk that low, we have to go out and actively look for something," Rohde says. "We have a formal proactive process for finding something." Detectability risk increases when you wait for symptoms to appear. For example, if the only thing you are monitoring is a patient's temperature spikes, the detectability rating may rise to the 4, 5, or 6 level. In this case you are not actively looking but are more waiting for the problem to come to you.

By the time scores climb into the 7, 8, and 9 levels, it is usually too late to prevent harm to this patient, because some sort of injury has occurred.

"The harm has already happened to this patient, and now what we're trying to figure out in hindsight is what went on so we can prevent it from happening again or to other patients," Rohde says. "That's an important part of risk reduction in our processes. If we can't figure out, even after we've had the problem, what happened, that's a bigger risk, because that means the next person is going to have that same risk as well." ■

Editor's note: For more information about Rohde's Failure Modes and Effects Analysis: Templates and Tools to Improve Patient Safety, *go to* www.hcmarketplace.com *and click on Books. Scroll down to the Quality/Patient Safety section.*

Detectability scoring scale

Detectability Scale

	Detectability	Description	Symptoms	Process Required for Detection	If you rely on Human Detection
1	Certain	Immediately self revealing	Obvious		
2	Very High	We go looking for a problem using Formal, Routine Pro Active Processes to Actively look for the problem	Observable Symptoms	Continuous Automatic Monitoring	Systems Evaluation Verification
3	High			Sampling	Formal Independent Verification
4	Moderately High			Surveillance Monitoring	Peer Checking of Manipulations
5	Medium			Primary Alarms or Tests	Self Checking of manipulation
6	Low	We Wait until an early warning symptom of the problem shows up in a test or an alarm	Hidden Symptoms	Secondary Alarms or Tests	
7	Slight	After the fact, we recognize something is wrong, we don't know what, so we decide to do a special investigation of this problem		Specialized Diagnostic Process	Self Detection of Misjudgments
8	Very Slight		Hidden and Obscure or Misleading Symptoms	Out of the Box Diagnostics	Self Detection of Decision Making errors
9	Remote			Forensic Laboratory Testing – Post Mortem	
10	Impossible	No ability to detect	None		

Source: Failure Modes and Effects Analysis: Templates and Tools to Improve Patient Safety, *by Ken Rohde.*