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IHI expands its horizons as it plans 'next step' campaign

Organization seeks to portray total hospital 'as a system'

Buoyed by the success of the 5 Million Lives Campaign, the Cambridge, MA-based Institute for Healthcare Improvement (IHI) is set to tackle its "next frontier," in the words of **Donald M. Berwick**, MD, MPP, president and CEO of IHI. Berwick was one of several panelists who spoke at a press teleconference during the IHI's 20th annual National Forum on Quality Improvement in Health Care, in Nashville, TN, on Dec. 10th, 2008. The forum marked the culmination of the 5 Million Lives Campaign.

"As we chart our course for future activity, we've seen the enrollment of over 4,000 hospitals, or 80% of all hospital beds in the nation, in the 5 Million Lives Campaign; there has been a wonderful outbreak of activity and downloads," said **Joseph McCannon**, IHI vice president and 5 Million Lives campaign manager. "Perhaps the most exciting legacy is the development of what we call the National Learning Network — field offices and nodes all around the country, including 200 mentor hospitals. What we observed in activity and energy was, without reservation, very promising and exciting, but the key question is how can we make certain we are actually changing outcomes and seeing improvements and a positive impact on patients and their families?"

Accordingly, he noted, IHI studied what occurred at the intervention level, and the results were "very encouraging." For example, he reported, pressure ulcers dropped more than 70% in New Jersey, and

Key Points

- 5 Million Lives Campaign deemed a success at improving outcomes.
- Financial crisis, infection rates, surgical safety now in IHI's sights.
- Organization hopes to see national metrics for quality and safety.

in Rhode Island central line infections fell more than 40%. "On the national level, over 65 hospitals have gone for a year without a case of ventilator-associated pneumonia," he added. "We sense that great things are possible and our confidence is growing."

A new way forward

McCannon conceded that IHI is not yet able to say how many incidents of harm have been avoided through the campaign. "There are striking levels of success, but we need to find a new way forward with hospitals," he says.

And what is that new way? "With our network in place, we have a chance to build on this success," said Berwick. "One response would be to the immediate crisis in finance. Infection has been in the background, but diseases like urinary tract infections are quite dangerous, extremely expensive, and highly preventable. A third opportunity is coming out of the work of Atul Gawande, MD, a surgeon and director of the World Health Organization's Global Patient Safety Challenge. His global trial on a surgical checklist is an attempt to standardize risk processes. **(For more on Gawande's initiative, see sidebar pg. 15.)**

"But the larger context is that it is now possible to do something we first tried years ago — the challenge of actually seeing a total hospital as a system," he continued. "We are actually beginning to map the hospital as a production system with over 100 processes, and we are working with hospitals on that much more ambitious total transformation."

What Berwick called the "IHI Improvement Map" is "the next morphing of the 5 Million Lives Campaign," he explained. "The map is a map of processes; it does not exist now, but in the months ahead, we will see the attempt to describe a hospital as a set of processes — both clinical and leadership processes — that we put on the map."

The good news, said Berwick, "is that we can do this as an assembly, a highly cooperative group; we hope in six months to be able to put on the table a picture of a hospital and say that is what we are going to work with."

"While the 5 Million Lives Campaign comes to a close today, this group of hospitals has resolved itself to move from discreet clinical interventions to the health and performance of an entire organization," added McCannon. "We have the beginning of measures for many factors — for example, mortality and harm — but we need to think about efficiency, equity, and all the ways we describe the highest-performing hospitals."

Berwick's biggest interest, he said, is in mortality. "I think we have a good measure, but there needs to be a national consensus; the same goes for harm," he observed. "I hope in six months we will all move toward a nationally accepted metric of hospital safety."

New administration: 'Good news'

The incoming Obama administration spells good news for these ambitious goals, said Berwick, in response to a question from *HBQI*. "I expect good news; there are clear signals from all the principals involved," he said. "You can read it in [incoming Secretary of Health and Human

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Editorial Questions

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Rapid adoption sought for surgical checklist

Leaders of the Institute for Healthcare Improvement, encouraged by the rapidity with which many of its local "nodes" have moved to adopt new initiatives, are optimistic that one of its latest initiatives will likewise see large numbers of hospitals participating in the near future. This initiative involves adoption of the World Health Organization (WHO) Surgical Safety Checklist, developed by a team headed by **Atul Gawande**, MD, the surgeon serving as director of WHO's Global Patient Safety Challenge.

The checklist identifies three phases of an operation (sign in, time out, sign out), each corresponding to a specific period in the normal flow of work. In each phase, the checklist helps teams confirm that the critical safety steps are completed before they proceed with the operation. (You can download the checklist free of charge at: www.who.int/patientsafety/safesurgery/en/index.html.)

"Some research work has been done that shows at least half of the major surgical complications that occur are preventable," asserted Gawande during a Dec. 10 teleconference that was part of IHI's 20th annual National Forum on Quality Improvement in Health Care, in Nashville, TN. "It is IHI's ambition to come into line with the goals of WHO."

The checklist, which was made public in June 2008, "can reduce complications by making sure surgical teams do simple things, such as making sure the patient gets antibiotics within the appropriate time before incision; that there is the right access to blood and fluids; that the team makes sure they know each others' names; that they know how long the surgery will take; and so forth," said Gawande. IHI members, he added, made a commitment to have at least one operating room in every member hospital using the checklist within 90 days and then to spread the checklist to every operating room. IHI has dubbed this ambitious initiative The Sprint. "It's a question of whether we can change what patients can expect in real ways quickly," Gawande explained.

"Washington has already rolled out the checklist throughout the state," reported **Donald M. Berwick**, MD, MPP, IHI's president and CEO. "It's already in 10 hospitals, and it will be in the rest of the state's 97 by the end of the year. As members of IHI, they can become a model of how IHI can do this with all hospitals."

"We had over 4,000 hospitals participating, and they will do so in this next phase," added **Joseph McCannon**, IHI vice president and manager of the recently concluded 5 Million Lives Campaign. "To strengthen our ability to support initiatives on the local level, every state has a nodal infrastructure. The hospital association or QIO will act as our proxy, take content, and manage local improvement so people can learn from one another and accelerate the rate at which they improve. We have observed a willingness to take on new interventions, and we hope that will be the case with the surgical checklist — which is our most ambitious yet."

McCannon said he feels optimistic. "We have a real obligation to make this part of the standard of care," he concluded. ■

Services'] Tom Daschle's book; Kennedy and others have a strong interest in improving care and a deepening understanding of the coverage issue that needs to be solved — and that one way is to link coverage to improved care." The president of the United States, he added, "also has the opportunity to influence the activities of the VHA and the Department of Defense and other organizations that give care directly; this presents a tremendous opportunity."

Berwick did not even appear deterred by the prospects of a deepening recession.

"We do know that improving care in many, many forms reduces costs; that is not always true, but almost always," he noted. "We have not been as disciplined as we wish had been over the years in measuring hard dollar returns, but some organizations have been. Now, it has become more important and more crucial to move to make sure that part of health care is improving."

Berwick added that one of a series of priorities recently enumerated by the National Quality Forum was reduction of overuse. "We have consensus statements from specialist societies themselves about things that are overused," he observed. "If we can unite, these will all be very important areas of endeavor. I see an opportunity because this is a time to be lean and effective."

Gawande agreed that the bottom line has become more important than ever. "In 2007, about 50% of U.S. hospitals were in the red," he noted. "If we have a jump of 4 million to 5 million uninsured there will be hundreds of insolvent hospitals by the end of the coming year, but

we do not have the capacity we had 10 years ago for a hospital to be in any way certain that it could reduce costs without hurting quality."

In the absence of a national health system, he continued, only initiatives such as those promulgated by IHI provide the opportunity to make changes that improve quality and lower costs. "Over the next year I can tell you that surgery departments will freeze hiring or cut staff," he predicted. "They fear uninsured patients will sink them well before reform even comes. A lot of hospitals are looking for tools to let them improve quality and manage their costs." Quality improvement, he insisted, is the answer. "[The state of Michigan] saved $200 million when they reduced infections by two-thirds," he observed.

Hospitals are willing

The good news, said Berwick, is that hospitals have responded enthusiastically to the initiatives. "Last night we had receptions for our lead organizations across the country," he shared. "In the South Carolina state hospital association, there was a leader from an important hospital that was just becoming aware of the UTI bundle and the introduction of a tools checklist, and right there in the room they began to work on how as a state they would adopt it. I believe we are seeing deployment at a rate not seen before."

McCannon likewise enthused about participation in the "Boards on Board" component of the 5 Million Lives Campaign. "It's among our most popular assets; more than 2,100 hospitals publicly committed to it," he said. "This was a statement that leadership is engaged in quality in a new way; this will put quality on the front burner for years to come."

That will be critical if hospitals are to successfully meet the next challenges, he continued. "I think [leadership commitment] is crucial," he asserted. "Our theory is, if we really want to make meaningful clinical improvement you need consistent leadership in the organization as its backbone."

Finally, said Berwick, the uncertainty that currently exists will hopefully be short-lived. "Any period of uncertainty creates conservatism," he conceded, noting that the list of quality players and goals is "very long, and you can't tell what's going to last for the long haul and are therefore not sure where to put your efforts."

However, he added, clarity is coming, "and I think you will see better and better alignment. The NQF, through its Priority Partner process, has things going very well with their first list of six priorities; it won't be long before we will be able know what 'plays' will be called."

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AHRQ highlights benefits, challenges of telehealth

Grantees in low-income, rural areas provide data

By developing secure and private electronic health records for most Americans, and making health information available electronically when and where it is needed, health information technology (IT) can improve the quality of care, even as it makes health care more cost-effective, asserts the Agency for Health Care Research and Quality in a new report. **(To download a free copy of the report, go to: healthit.ahrq.gov.)** As part of its IT initiative, the organization has recently homed in on the role telehealth can play in the overall effort to accomplish this overarching goal.

Telehealth can improve patient safety and quality of care, but implementation is not easy, the report asserts. For example:

- One project demonstrated that remote pharmacy services provided to rural hospitals during irregular hours (nights, weekends, and holidays) can more effectively detect and prevent dangerous medication errors than traditional methods; this can be attributed to pharmacists manually reviewing (night and weekend) orders first thing in the morning before turning to day-shift activities.
- Another project demonstrated that remote pediatric care can easily treat common childhood illnesses from schools and child care centers, helping working parents who cannot leave their jobs.

However, when it came to implementation, the report cited challenges with using the equipment:

- One project indicated that vendor-supplied home monitoring devices failed to work on a regular basis. As a result of this failure, approximately one-third of the patients who were enrolled in the study became frustrated with the devices and stopped using them.
- Two projects reported that the video cameras

Key Points

- Linking telehealth for EHRs helps facilitate team-based care, several participating providers say.
- Pilot test products you are considering to avoid usage problems.
- Follow-up research shows improved outcomes when telehealth is used.

they were using to transmit video and still images did not provide adequate resolution to yield clear images of small pills (medications) and patient wound areas.

The report focuses on grants in the health IT portfolio that are implementing telehealth — which AHRQ defines as "the use of electronic information and telecommunications technologies to support clinical health care, health-related education, public health, and health administration from a distance." These grants were awarded in 10 states — Arkansas, California, Minnesota, Montana, New Mexico, New York, Oklahoma, Pennsylvania, Tennessee, and Texas — and serve primarily low-income rural areas with high rates of chronic illness.

Improving access

The actual intent of the report, says **Teresa Zayas-Caban**, PhD, AHRQ's senior manager, health IT, was to look at implementation challenges, "but we have anecdotal evidence that the biggest benefit was improved access to care. Many of the grantees work with community-based organizations in rural areas, and for them it is hard, for example, to get in touch with specialists."

Several participating providers also claimed that integrating telehealth with their electronic health record (EHR) systems offered many "critical benefits," and helps facilitate the provision of team-based care. "That means being able to share data in real-time with the provider at the other end, and also longitudinally, particularly with specialists and nurse case managers focusing on patients with chronic illnesses," Caban explains. "The real-time data that come from the EHR can be observations — blood pressure, glucose readings, and so forth — things that can be monitored through telehealth."

For example, she says, one project in wound care for diabetics modified the intervention to include monitoring of glucose readings, because some patients with diabetes also are at risk for other conditions and were being mentored in risk-reduction activities such as losing weight and controlling blood pressure.

"In the same project, allied health providers and home health care workers were linking with wound care specialists that were not in that area, as well as with primary care providers who were tracking their patients," adds Caban. Follow-up research, she says, shows improved outcomes.[1,2]

Pilot tests recommended

To eliminate, or at least minimize, some of the equipment use problems noted in the report, Caban says that serious consideration should be given to "vigorously" pilot testing all equipment being considered.

"Many of these problems came up during the intervention," she notes. "So, for example, the users could have piloted different types of cameras to compare the transmission quality using high-speed Internet and dial-up, but they did not take the time to do that. Some grantees had settled on a specific camera, and then later realized they needed more bandwidth to get better images."

Small pilot tests, with a mockup of the kind of information you are trying to view, would be most helpful, she continues. "In one example, the grantee wanted the home health worker to show the meds the patient was on, but the camera did not have the resolution necessary to be able to look at [the labels] in detail," she shares. "If you already know how you want to use the intervention, take four or five products you might be working with and run several tasks you want to accomplish."

There can be unique considerations involved, Caban notes. "In the wound care project, for example, a lot of the patients were elderly; they needed equipment that was easy to use, where they only needed to push one button," she says. "However, they also wanted to minimize the intrusiveness of being monitored, and they were concerned that even if the camera was off it could still see them, for instance, in the bath." A solution was found, however. "They got a camera with a little lid that could be put up or down so the patients would be assured no one could see them," says Caban.

Which brings up another critical point, she continues. "We can't emphasize enough how important it is not only to really pilot test, but to also take into consideration the needs of your users — which, in this case, includes patients as well as providers," she concludes.

[For more information, contact:
***AHRQ National Resource Center for Health Information Technology**. Phone: (866) 356-3467. E-mail: NRC-HealthIT@ahrq.hhs.gov.]*

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Hospital pharmacies meet TJC anticoagulant rules

Here's some advice on improving your P&Ps

Hospital pharmacists will need to continue their focus on anticoagulation therapy and improving safety, as indicated by a sentinel event alert by The Joint Commission on anticoagulant use.

"The Joint Commission has outlined these goals to improve patient safety around the use of these drugs," says **Ann K. Wittkowsky**, PharmD, CACP, FASHP, FCCP, clinical professor at the University of Washington School of Pharmacy and director of anticoagulation services at the University of Washington Medical Center in Seattle. Wittkowsky also was among the experts on anticoagulation therapy scheduled to speak at the 43rd American Society of Health-System Pharmacists (ASHP) Mid-Year Clinical Meeting, held Dec. 7-11, 2008, in Orlando, FL.

According to The Joint Commission's alert, 7.2% of all medication-related sentinel events reported from January 1997 to December 2007 involved anticoagulants, and of those, two-thirds involved heparin.

The Joint Commission's National Patient Safety Goals include nine elements that provide guidelines for organizations that desire to both improve anticoagulant safety and meet Joint Commission standards.

Wittkowsky offers these suggestions for interpreting and meeting The Joint Commission's safety goals for anticoagulant therapy:

Key Points

- Joint Commission's recent sentinel event alert focuses on anticoagulation therapy.
- A multidisciplinary team is needed to evaluate anticoagulation safety practices.
- Incorporate anticoagulation education into ongoing RN, MD education.

1. Implement a defined anticoagulation management program to individualize the care provided to each patient receiving anticoagulant therapy.

"What hospitals typically are working on is coming up with what these programs, protocols, etc. will be," Wittkowsky says.

"We have a plan in place for the University of Washington, and every hospital is charged with meeting those guidelines," she adds. "What we have are guidelines, patient education materials, goals, and all kinds of things on our web site."

The hospital medical staff and others have access to the information, and they're required to use the materials, Wittkowsky notes.

"It's nothing new in our program," she says. "We've had these in place for many years, and it's a continuous effort to make sure everything is updated and expanded as necessary."

Some hospital officials might interpret this to mean they'll need to have a warfarin-dosing adjustment nomogram in place for every patient, Wittkowsky says.

"A defined individual management program doesn't necessarily mean you have to have a warfarin-dosing nomogram," she adds. "That might be one way to do it, but there may be other ways to do it, as well."

The important thing is for hospitals to show the Joint Commission how they're improving patient safety, Wittkowsky says.

2. Reduce compounding and labeling errors using only oral unit-dose products, pre-filled syringes, or pre-mixed infusion bags when these types of products are available.

Taking the measures The Joint Commission now requires will reduce compounding and labeling errors, according to research that has shown these methods to be safer, Wittkowsky says.

"Our hospital uses only oral dose products, pre-dosed syringes, and pre-mixed infusion bags, and this was inherent in our drug distribution process," Wittkowsky says. "But there are hospi-

tals where that's not true."

3. Use approved protocols for the initiation and maintenance of anticoagulant therapy appropriate to the medication used, to the condition being treated, and to the potential for medication interactions.

The Joint Commission and ASHP are working on having resources available for hospitals in improving and writing these protocols, Wittkowsky says.

Although some hospital officials might be concerned that they need to have an ambulatory anticoagulation clinic, this is not what is required, she notes.

"That's a nice way to improve safety, but it's not a requirement," Wittkowsky says.

4. Obtain a baseline International Normalized Ratio (INR) for patients starting on warfarin, and use a current INR for all patients receiving warfarin therapy to monitor and adjust therapy.

This makes a lot of sense but hasn't always been employed, Wittkowsky says.

"It's shocking because it seems like such basic medical care, but it doesn't mean everyone does it, so The Joint Commission is mandating this, " she notes.

5. Notify dietary services of all patients receiving warfarin; dietary services should respond according to an established food/medication interaction program.

"There are lots of foods that interact with warfarin, and hospitals have to be aware of when patients have dietary changes in terms of the amount of vitamin K ingested," Wittkowsky says.

"There can be changes in the INR, which can lead to bleeding complications or clotting complications," she adds. "Hospitals have to come up with programs to make sure this goal is being met."

This might be difficult for larger hospital systems, but a program that manages dietary and drug interaction issues is necessary, she says.

6. Use programmable infusion pumps to provide consistent and accurate dosing when heparin is administered intravenously and continuously.

"I believe that there are other regulations that are pointing toward using programmable infusion pumps, so many hospitals are in the process of doing this," Wittkowsky says.

7. Develop a written policy that addresses baseline and ongoing laboratory tests that are required for heparin and low-molecular-weight heparin therapies.

"This is important because you can't dose or monitor these drugs without baseline labs," Wittkowsky says. "So The Joint Commission is saying, 'You'll do this and have a written policy about it.'"

8. Provide education regarding anticoagulant therapy to prescribers, staff, patients, and families.

Hospitals have to come up with their own education strategies, Wittkowsky says.

At the University of Washington Medical Center, nurses are required to take certain educational courses each year, and the hospital has added anticoagulation topics for the past few years, she says.

"We include how to use the heparin protocol, and we've incorporated anticoagulation education into ongoing nurse education efforts," Wittkowsky says. "My guess is a lot of hospitals will do the same."

The problem is that hospital leaders might make these requirements more difficult than they are, Wittkowsky says.

For example, Wittkowsky has personally heard rumors that The Joint Commission would require every hospital physician to take anticoagulation training and document this training.

"That's taking it many steps beyond the intention," Wittkowsky says. "You can incorporate anticoagulation training into what the medical staff are teaching if you have a grand rounds program."

It's important for hospital leadership to look at the system in place and see what can be done to meet the goals.

"The overall structure is a good one because the intention is to improve patient safety, and that's critical," Wittkowsky notes.

9. Evaluate anticoagulation safety practices, take appropriate action to improve practices, and measure the effectiveness of those actions on a regular basis.

"In our system we have the safe medication committee and our center for clinical excellence, which is really a quality improvement program," Wittkowsky says. "A multidisciplinary team works on this, which is very important for all of these efforts — to make sure you have all relevant specialties involved."

Through measuring the programs' effectiveness, the hospital discovered that although the appropriate policies and procedures were in place, there wasn't a good way to find out whether the staff followed the P&P, she adds.

"So we started doing audits to ensure the systems we have in place are effective and being

used," Wittkowsky says. "That's part of our ongoing QI effort, and I think that's worked very well, as a process."

Hospitals likely will find that having adequate pharmacist resources in place is the biggest problem, Wittkowsky notes.

"Hospitals want to do a good job, but they don't have enough staff," she explains. "The requirements essentially are rather basic, but the resources to do it and develop the systems to make it work can be very difficult." ■

Key Points

- Payer denials for inappropriate observation patient status dropped 50% after hospital delegated responsibility for determining patient status to CMs.
- All admitted patients are reviewed by a CM for admission status.
- CMs use Medicare guidelines and InterQual criteria for medical necessity determination.

CM protocol results in decreased denials

Docs delegate patient status determination to CMs

Payer denials for inappropriate observation patient status dropped by 50% the first year after Good Samaritan Hospital in Dayton, OH, instituted a case management protocol that delegates responsibility for determining patient status to case managers.

The protocol was developed by the multidisciplinary integrated care management status team, which worked closely with Ohio KePro, the hospital's quality improvement organization, and was approved by the hospital's medical executive committee. **(For details on how the protocol was developed, see related article on pg. 22.)**

The hospital is licensed for 577 beds and has an occupancy rate of about 73%. The case managers are unit-based and have an average caseload of up to 25 patients a day.

The hospital piloted the protocol in the ED, where the majority of patients are admitted, beginning in May 2007, and rolled it out throughout the hospital a year later, says **Teresa I. Gonzalvo**, RN, MPA, CPHQ, LNC, director of integrated care management.

"About 70% of admissions come through the emergency department, and therefore, that department has the most status assignments. We decided to roll the process out in the rest of the hospital after we piloted it in the emergency department because of the size and number of services. We had many access points and many dissimilar processes and had to come up with a way to make it work," Gonzalvo says.

At Good Samaritan, all admitted patients are reviewed by a case manager for admission status, regardless of their access point or payer, she reports.

The case managers use InterQual criteria and Medicare guidelines for medical necessity as the basis for determining whether the patient will be in observation or inpatient status. CMs are responsible for assuring the correct status from admission through discharge.

The admission status of patients admitted through the ED is determined by case managers who cover the department 24 hours a day, seven days a week.

When patients who come to the hospital at other access points get to the floor, their admission status is determined by the case managers on the floor who work from 8 a.m. to 4:30 p.m., Monday through Friday. After hours and on nights, weekends, and holidays, the ED case managers review the admissions of patients admitted at all access points and ensure that their status is correct, Gonzalvo says.

Before the protocol was implemented, two case managers covered the ED for 12 hours a day, Monday through Friday.

Adding FTEs to ED

The hospital committed an additional 4.3 FTEs to provide case management support in the ED around the clock.

Since the protocol was implemented, there has been a significant increase in the ratio of patients admitted to inpatient status, rather than being in observation, says **Donald P. Sickler**, MD, medical director, integrated care management.

Having 24-7 coverage in the ED was essential to the success of the protocol, Gonzalvo adds.

"When we didn't have staffing on certain nights, the case managers would have to review admissions from the previous night along with surgical admissions and were always behind in their work," she says.

The hospital's ED bed request form includes a section for the case manager to assign the patient to observation or inpatient status and sign and date it. The form is not part of the permanent record.

Case managers also fill out a case management status sheet, which includes the date and time the patient is placed in inpatient or observation status and check-off boxes for the rationale for the status assignment. The sheet is signed by the case manager and placed in the medical record. If the status changes, the case manager fills out a second sheet and puts it in the record.

If the attending or admitting physician disagrees with the status determination, the case manager discusses the disagreement with the admitting physician and, if there is no resolution, refers the case to the medical director or the vice president of medical affairs. If there still is disagreement, the final determination is made by two physician members of the hospital's utilization review committee as specified by Centers for Medicare & Medicaid Services guidelines.

As physician advisor to integrated care management, Sickler makes daily rounds with the case manager on each unit, including the ED. He discusses cases with them and mediates when there is a disagreement with the medical staff. He is available by pager throughout the day.

If the ED case managers have questions about a difficult case when Sickler is not available, they call the integrated case management manager or director and, if it's still a gray area, assign a default observation status to the care. The situation is discussed with Sickler or the vice president of medical affairs as soon as possible.

On weekends, nights, and holidays, the emergency department case manager runs a report of observation cases, and then reviews the charts of the new admissions, and ensures that the patient is assigned the right status.

"The case managers can assign the correct status or have a conversation with the admitting physician to determine what the disposition should be, based on medical necessity," says **John W. Clark**, BN, BSN, manager, case management.

Having someone review patient status on weekends is critical to ensure that those patients in observation who now meet inpatient criteria are placed in the appropriate status, Gonzalvo says.

"A patient admitted on the weekend may initially be appropriate for observation but may need to be converted to inpatient status. If someone doesn't make sure the status remains appropriate, we end up with two days of observation for someone who should have been an inpatient," Gonzalvo says.

The team created a user-friendly manual for Medicare's inpatient-only list to ensure that patients who receive surgical procedures on the list are admitted to the hospital as inpatients.

Surgery schedules also use the manual to determine if patients should be admitted as inpatients. The case managers re-evaluate patient status while patients are in the recovery room.

The unit-based case managers take turns rotating through the post-anesthesia care unit to determine admission status for patients who are in recovery following surgery. If the unit that's assigned recovery room responsibility has a big caseload on its regular unit that particular day, another unit takes over the process.

"It's easier to get these patients admitted in the right status if someone goes to the recovery area, rather than trying to manage the admission status when the patients get to the floor," Clark says.

In isolated cases, when a case manager doesn't see a patient within 16 hours of admission, the patient status defaults to observation. Then the case manager can review the chart and continue the status as observation or assign the status as inpatient if appropriate.

"This gives us up to 16 hours after admission to make the initial status determination. Since we have case managers in the emergency department 24-7, a default status happens very rarely, if at all," Gonzalvo says.

The case manager can convert the defaulted observation status to inpatient by the case management protocol at the time the need for acute inpatient level of care is determined, she adds.

One challenge is patients who must have a three-night stay to qualify for Medicare coverage of post-acute facilities.

"We want to avoid having patients who need to go to a nursing home but don't have a qualifying three-day stay because of a default to observation status," Clark adds.

Almost immediately, the hospital experienced an increase in teamwork and communication among staff, along with a huge positive response from the medical and nursing staff, Clark says.

"We saw an increase in consistency in applying criteria and in using the inpatient only list, which we attribute to additional training. The integrated case management department gained increased visibility in the hospital by discussing the project with the various departments," he says.

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Education was key to success of CM protocol

Research also critical

Before developing a protocol that delegates authority for determining patient status to case managers, a multidisciplinary team at Good Samaritan Hospital in Dayton, OH, spent several months researching the process, seeking advice from the Florida Quality Improvement Organization (QIO) and hospitals in Florida that had piloted a case management admission status protocol.

The hospital's integrated care management status team also worked closely with its QIO, Ohio KePro, and invited its representatives to participate at meetings and conference calls. The agency was involved in every step of the development, says **Teresa I. Gonzalvo**, RN, MPA, CPHQ, LNC, director of integrated care management.

"Like most hospitals, we have an ongoing challenge of determining whether patients should be admitted as inpatients or placed in observation status," she says.

The hospital's integrated care management department has partnered with a sister hospital, Miami Valley Hospital, on a project to establish the infrastructure for a case manager dedicated to observation patient reviews, tracking and trending charges and missed opportunities.

"The project showed overall improvement and modest gains. With Medicare's increased emphasis on medical necessity and the anticipated roll-out of the Recovery Audit Contractors, we knew we had to do more to ensure that every patient is placed in the proper status," she adds.

It has long been a challenge to get physicians to assign the proper status to patients, says **Donald P. Sickler**, MD, medical director for integrated case management.

"It is necessary to know the diagnosis and treatment to assign status but it's not necessary to know the status to diagnose and treat a patient; therefore, many physicians consider it a nuisance and put as little effort as possible into the process," he points out.

Before the project was implemented, patient status was, at best, educated guesswork by the physician, with the case manager working to get it correct during the hospital stay, says **Daniel L. Schoulties**, MD, vice president for medical affairs.

Many physicians were not familiar with InterQual criteria at the time, he adds.

Rather than training the medical staff on those criteria and expecting them to use them properly and objectively, it made more sense to allow case managers who use InterQual criteria daily to assign the patient status with support from the physicians, Sickler says.

The team began by educating the medical executive committee about admission status and the importance of getting it right.

"It is important that everybody involved with patient care knows how status is assigned and the ramifications of placing a patient in the wrong status," Sickler says.

The medical executive committee voted to have the patient status assignment delegated to the case managers. However, initially, some members of the executive committee were uncomfortable with having a case manager assign the status without a physician signature, Sickler says.

"Since the physicians had already signed an order on the chart delegating the responsibility for admission status determination to the case manager, we decided that it was redundant to ask them to sign off on the specific status assignment the second time," he says.

The team looked at the various parts of the admissions process, such as what forms were being used and which ones needed to be changed or what needed to be developed.

They modified the preassembled bed assignment forms and order set packages to be used in the emergency department for status determination.

The team created a case management status sheet that goes into the medical records. The sheet, which is signed by the case manager, includes the date and time the patient is placed in inpatient or observation status followed by check-off boxes for the rationale for the status assignment.

For instance, there are boxes for the case manager to check off if the patient meets InterQual criteria; if a surgical procedure is on Medicare's inpatient-only list; if the patient failed outpatient treatment; if the patient has complications or comorbidities that complicates his or her care; or if the patient is at increased risk for a significant clinical event. There is a space for the case man-

ager to add details, such as the name of the procedure or complication, when appropriate.

Under observation status, the case manager checks off if the patient meets the InterQual criteria for observation, if the patient does not trigger the inpatient criteria, or if Condition Code 44 is being used.

The team involved all areas of the hospital in the project including the post-anesthesia care unit, surgery scheduling, the referrals management center, direct admissions, the family birth center, the cardiac catheterization laboratory, mental health, insurance verification, patient access, and all patient units.

"For us, communication was the key in rolling out the process. Every department was affected by the change, so it was critical to bring in all the stakeholders and educate them," says **John W. Clark**, RN, BSN, manager, case management.

The team spoke at every nursing staff meeting at every unit in the hospital.

"We wanted all the key stakeholders from other departments to know what we were doing and the reason why," he says.

Before the project went live, the hospital made sure that all case managers were proficient with InterQual criteria. They instituted additional training on scenarios that can affect admission status, such as comorbidities or failure to improve with outpatient treatment.

"We practiced with difficult cases. Once we went live, we performed our own audits and requested an audit from Ohio KePro," Sickler says. ■

Multifaceted approach keeps patients flowing

The emergency department at Middle Tennessee Medical Center (MTMC) in Murfreesboro certainly qualifies as busy: It sees nearly 63,000 patients a year and averages more than 170 patients a day. Yet the average time it takes a patient to get to triage from entry into the ED is 14-17 minutes, and its door-to-doc time averages 35-40 minutes. The department leadership says its success is due to the ongoing pursuit of process improvement, often with several initiatives under way at the same time.

"It's a multifaceted approach," says **Kevin H. Beier**, MD, FAAEM, a physician in the ED. "We have a relatively small department for this volume."

Monty Gooch, RN, BSN, director of emergency services, says, "Our initiative to look at [patient flow] has been ongoing." Here are some of the more recent initiatives in the ED at MTMC:

- a lab phlebotomist hired specifically for the ED;
- the hiring of additional ED physicians;
- the expansion of point-of-care testing;
- the installation of a Lifenet Receiving Station.

This collaborative effort with the Rutherford County Emergency Medical Service enables the staff to receive wireless EKGs from the field.

The ED staff's response to the patient demand is extremely flexible, notes Beier. During heavy volume times, when they have 20-30 patients in triage, they use parallel assessment, he says. "We do the patient assessment right away in triage, order testing, and expedite their testing instead of them waiting three hours in triage to be seen," he says. Instead of having the nurse triage the patient up front, he says, the patient is brought back and triaged by a nurse and physician, which expedites testing orders.

They make extra efforts to pull patients into the back from triage, Beier says. "We do what we can to reduce the roadblocks to getting patients through the department."

Perhaps the initiative with the greatest immediate impact was the Lifenet station. "The county EMS initiated the program," says Gooch. "We had to buy the software program, plus a tabletop computer." (Minneapolis-based Medtronic is the vendor.) The LifeNet Receiving station was purchased through an $11,998 grant from the MTMC Foundation, a nonprofit corporation based in Murfreesboro (www.mtmc.org/index_ways

togive.php).

"It has significantly improved MI care," adds Beier. "We can call the cath lab and cardiology at the same time, and sometimes we are able to have a cardiologist in the ED before the patient arrives." The hospital added an interventional cardiologist about six months ago, he notes. "Many of our patients that we would have transferred out, we now keep on site," Beier says. The cardiologist's office is directly across from the ED. ■

Don't wait for CMS move, EDs are told

With the likelihood that the Centers for Medicare & Medicaid Services (CMS) will adopt some or all of the 10 national voluntary consensus standards for hospital-based ED care recently endorsed by the National Quality Forum (NQF), experts advise ED managers to begin preparing now to be in compliance. Besides, they argue, the new measures will help them improve the efficiency and quality of their departments.

"ED managers should respond to these measures through their own local performance improvement programs, review these measures, and begin to follow them in their own institutions — and be on the lookout for groups like CMS to include them, perhaps as soon as 2010," advises **John Moorhead**, MD, professor of emergency medicine at Oregon Health & Science University, Portland. Moorhead co-chairs NQF's steering committee on hospital-based ED care. "These measures are not the be-all and end-all, but they are important steps in terms of our long-term goal of ED quality improvement," he says.

Those are good measures that ED managers can begin using now to get a sense of their baseline, particularly with throughput, says **Helen Burstin**, MD, MPH, NQF's senior vice president of performance measures. They are measures they can use to compare with other hospital EDs and learn from them, Burstin says. "In addition, because NQF has endorsed them, they are now eligible to be used for public reporting, so it's important to get to understand them in advance of CMS potentially using them as part of their outpatient public reporting requirements."

Moorhead says he hopes that in the long run, these measures will not present an additional burden of documentation for EDs. "We hope over a period of time one set of reporting is generated to meet the need of all these programs [i.e., CMS, The Joint Commission], and there is an attempt to minimize the burden on doctors, nurses and department in terms of the reporting process," he says. ■