Joint Commission

What do JCAHO surveyors look for in assessing the Universal Protocol?

Compliance with the time-out before surgery has fallen off. Only 81% of hospitals and 85% of surgery centers surveyed in the first quarter of 2006 were compliant, down from 92% and 93% in 2004, according to the Joint Commission on Accreditation of Healthcare Organizations.

The reason may be that surveyors are more astute in assessing the time-out, says the Joint Commission’s executive director for patient safety, Richard Croteau, MD.

Beginning this year, all surveys are unannounced, meaning organizations have to be prepared at all times. Surveyors also spend more time observing patient care, and they judge compliance based on actual performance rather than policies and procedures, Dr Croteau notes.

Eight organizations surveyed recently shared their experiences with OR Manager about the Joint Commission’s review of their time-out process and other elements of the Universal Protocol. Most said the surveyors were satisfied, though a couple received recommendations for improvement (RFIs).

The Universal Protocol requires 3 steps for eliminating wrong site, wrong procedure, and wrong person surgery:

• preoperative verification process
• marking the operative site
• time-out immediately before the procedure to conduct a final verification.

Compliance with preoperative verification and site marking is high (chart, p 7). Two major questions OR managers have:

• How should the time-out be documented?

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OR nurses rate high, surgeons lower in new study of teamwork in surgery

Nurses were rated highest on OR teamwork and surgeons lowest in new research from Johns Hopkins University, Baltimore.

Only two-thirds (65%) of OR personnel in a survey thought surgeons demonstrated a high level of teamwork. In contrast, 84% rated OR nurses high, and 85% rated nurse anesthetists high. Anesthesiologists came in third at 79%.

The survey also asked OR personnel to rate their hospital’s safety climate and found scores varied widely.

The study is another step in the scientific research on OR teamwork and communication, says Martin Makary, MD, MPH, the lead researcher. “We are trying to measure it, improve it, and remeasure it in the same way we do a new surgical procedure or technique.” The results were published in the May Annals of Surgery and Journal of the American College of Surgeons.

Poor communication is known to be at the root of most adverse events.

The survey polled 2,769 OR caregivers in 60 hospitals in a Catholic health system, with a 77% response rate. Respondents were asked about teamwork, safety culture, and other working conditions. The survey used the Safety
Please see the ad for MEGADYNE in the OR Manager print version.
A preoperative briefing is an expanded time-out.

New research from Johns Hopkins described in this issue is giving the study of OR teamwork and safety culture a scientific foundation. That will help give it more credibility and visibility with physicians.

The studies also showed that the Safety Attitudes Questionnaire, originally developed for cockpit crews and now being used in ORs and ICUs, is a valid tool that can be used to measure what physicians, nurses, and team members think of their culture and teamwork—probably the best way we currently have to assess the level of safety.

The tool could be used, for example, to see if briefings help improve the staff’s perceptions of safety. If scores improve, the organization will know it’s on the right track. If scores don’t improve, they might decide to try another strategy.

Some implications of this research:

• You’ll hear more about measuring teamwork as a barometer for an OR’s culture of safety. You may be involved in benchmarking your OR’s safety culture.

• You’ll hear more about OR briefings as a way to break down barriers and encourage teamwork.

“In health care, I think the train has started to move,” says Taggart. “We will still have difficulty with some of the independent surgeons. But over time, I think we will see a change.

“I think we’ll see briefings become the standard.”

—Pat Patterson

What’s your opinion on preoperative briefings? We’d like to hear what you think. E-mail Pat Patterson, editor, at ppatterson@ormanager.com

Whoa, are people really doing this?” one of our advisors asked after she reviewed the sample preoperative briefing on page 13. A briefing is an expanded time-out before surgery where the OR team quickly discusses the goals for the procedure and anticipated needs.

“How are people going to find time to do briefings when there’s so much emphasis on speeding things up? It’s hard enough to get compliance with the time-out,” she said.

Then she added: “Actually, it would be great if people did talk more before a procedure.” That’s particularly true for a long, complex case like a Whipple where the course is unpredictable.

The idea behind preoperative briefings is to reduce the communication breakdowns behind nearly 70% of the sentinel events reported to the Joint Commission on Accreditation of Healthcare Organizations.

Who’s doing briefings?
The Johns Hopkins inpatient ORs, for one. Read about their experience on page 12. Kaiser Permanente is using briefings for some facilities in California and the Northwest. Others have also started briefings, which are introduced after the staff and physicians have been trained in teamwork or crew resource management.

A cue from the airlines

These ORs are taking their cue from the airline industry, which introduced team training in the early 1980s after plane crashes were traced to communication and leadership failures.

Some experts think briefings should become the norm in the OR.

“If you look at the Joint Commission’s data on sentinel events and go back to aviation 20 years ago, the patterns look similar. Aviation has made remarkable progress,” says William Taggart, a human factors expert who led the team training at Johns Hopkins.

In aviation, as in health care, there was some initial resistance to team training. “I think what we’re seeing [in ORs] is what we saw in aviation years ago,” says Taggart. “The captains said, ‘I don’t know why we need this. We’re highly trained professionals. Let’s just do our jobs.”

“O

OR design and construction

What you need to know about design trends and keeping a project on track.

Infection control during renovation

Remodeling? How do you maintain high standards for control of infection?

OR governance

What’s needed for effective leadership of surgical services?
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in the OR Manager print version.
Could hospitals go the way of the airlines?

Price transparency, health savings accounts, and high-deductible insurance plans are strategies to help control health care costs. What impact could they have on hospitals?

Stuart Altman, PhD, one of the nation’s top health policy experts, sees some similarities between hospitals and the airlines.

A witty and insightful speaker, Altman will discuss issues facing health care in a special lecture at the Managing Today’s OR Suite conference Nov 8 to 10 in Orlando. Sponsored by Cardinal Health, Medical Products and Services, the lecture is Thursday, Nov 9, at 4:30 pm.

Altman, named by Modern Healthcare as one of the 100 Most Powerful People in Healthcare, is dean of the Heller School for Social Policy and Management and Sol C. Chaikin professor of national health policy at Brandeis University in Waltham, Mass.

He shared some of his views with OR Manager.

We’re hearing a lot about price transparency. What might be the impact on hospitals?

Altman: General hospitals provide services to anyone who walks through their doors, regardless of their ability to pay.

Today’s market for hospital services is becoming increasingly competitive and price sensitive. In the past, hospitals could build the cost of free care and other money-losing services into their prices because pricing wasn’t transparent, and patients with insurance weren’t price sensitive.

But that could change. We’re seeing patients assume more responsibility for payment, and they’re demanding to know the prices of services. We’re also seeing more competition from specialty providers. These forces could threaten hospitals’ ability to provide these money-losing services.

There is a dark side to price transparency and competition. If you’re a community hospital that has a burn center and a psychiatric center, has 4% uncompensated care, and provides 10% or 20% of its care to Medicaid patients, you charge a higher price for your cardiac caths or your orthopedic cases to compensate for these other services.

If you start showing those prices to the public, and they compare your prices with those of an institution that doesn’t have these extra costs, you’ll lose business if people decide to shop based purely on price.

If these trends continue, the financial stability of general community hospitals could be threatened.

You wrote a piece in Health Affairs asking whether hospitals will go the way of the airlines. What similarities do you see?

Altman: There are some parallels to the airlines of old—TWA, PanAm—which flew everyone everywhere, restricted competition, and wouldn’t allow new airlines to come in. These restrictions allowed the airlines of old to be quite independent, profitable, and expensive.

Then the low-cost airlines came in, attacked their most profitable routes, hired lower-cost personnel, and so on. A few years ago, it was almost inconceivable that many of the largest airlines in the US would file for bankruptcy or cease to exist. Price transparency and low-cost carriers changed the airline industry—but not necessarily for the better.

Yes, prices are lower, but no one who has flown more than once in the past few years would say services have improved.

So the question is: What will health care look like if we let the same type of competitive forces that changed airline travel change our health system? In particular, what will happen to the millions of dollars in uncompensated care or care that is provided by the government at less than the cost that most health care institutions now provide? It’s not that I’m against the positive effects of market forces, but I think if we’re not careful, we could do serious harm to important segments of our health care system.

One issue OR leaders face is the need to buy expensive technology. Prices keep going up while reimbursement often does not. Could you comment on that?

Altman: A lot of hospitals’ costs are generated by devices that are priced artificially high and have a guaranteed market for them. It’s interesting what could happen as patients start paying more of
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their own bills. If someone says to you, “From now on, you will have a deductible of $5,000, and part of that will go for your hospital care.” If surgery is recommended to you, and it’s not life saving, you might think, “Maybe I’ll put that off for a while.” What would be the implications for the equipment and the drugs that go with that procedure? Could it be that people will request more generics for medical devices, like they have for drugs? We’ve never talked about generics in technology—we always want the latest one. And by the way, what about the wages paid to the health professionals that provide these high-cost procedures? Ask airline pilots what has happened to their salaries in the past 5 years. ✤

*First quarter. Source: Joint Commission.

**Joint Commission**

**Compliance with Universal Protocol**

<table>
<thead>
<tr>
<th>Goal:</th>
<th>Percent</th>
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<tr>
<td>Time-out before surgery</td>
<td>100</td>
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<tr>
<td>Preoperative verification process</td>
<td>95</td>
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<tr>
<td>Surgical site marking</td>
<td>90</td>
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2003 2004 2005 2006*

**Reference**


**Gala reception**

Join your colleagues following the Stuart Altman lecture for a gala reception, sponsored by IMS, on Thursday, Nov 9, from 5:30 to 6:30 pm at the Managing Today’s OR Suite conference in Orlando.

This will be an exceptional event with elegant hors d’oeuvres, carving stations, passed champagne, and other beverages, all topped off with taste-twingling desserts.

Social events give conference attendees an opportunity to network and relax after the day’s education sessions.

The conference welcoming reception will be Wednesday, Nov 8, from 6:00 to 7:30 pm in the exhibit hall with your favorite Disney characters on hand to greet you.

Please note that there is a change in the schedule this year. The welcoming reception follows the conference opening session and keynote address on Wednesday from 4:30 to 6:00 pm. The keynote address, Leadership in Health Care: Nurse-Physician Partnerships in Planning for the Future, with Joseph Bujak, MD, FACP, is sponsored by Kimberly-Clark Health Care. ✤

**Documenting time-out**

“The surveyors scrutinized our preop admission department very closely. As they toured our department, they watched what we were doing a lot,” says Robin Ramsey, RN, BSN, CNOR, at Poudre Valley Hospital in Fort Collins, Colo, which has 12 ORs and was surveyed in March 2006.

Surveyors pulled 4 or 5 current electronic charts in the preop area and postanesthesia care unit. Once they found those compliant, she says they didn’t probe further.

“My sense is that if they had found something, they would have dug deeper,” Ramsey says.

Poudre Valley’s electronic nursing documentation has space to document the 5 elements of the time-out.

Surveyors seemed to ask more questions about the Universal Protocol in departments like the cath lab, radiology, and the gastrointestinal endoscopy unit than in the OR, she notes.

The surveyors did not comment on Poudre Valley’s policy of not requiring the physician to mark the site, but others did not.

Some inconsistency was noted among surveyors about who should mark the site. One facility received an RFI (later withdrawn) for not requiring the physician to mark the site, but others did not.

Continued on page 8
that, but they didn’t say a thing about it,” says Ramsey. About half of physicians
mark the site, but some are resistant.

The hospital’s policy states: “After
communication with the patient, or a
patient’s representative, the physician or
physician’s designee (ie, physician assis-
tant, nurse practitioner, RN) will mark
the procedure/surgical site(s) with ‘yes’
prior to the patient entering the proce-
dure/operating room.”

Preop nurses use a specific tool when
handing the patient off to the OR nurse
to ensure consistency in site verification
information.

**Surgeon’s role in verifying site**

Surveyors spent almost a full day in
the OR, and then came back during trac-
ers at the University of Wisconsin, an
academic medical center with 31 ORs
surveyed in October 2005. All 5 time-out
elements are documented online, and a
paper copy is printed for the chart.

“The surgeons did witness our verifica-
tion process in the holding area. One
surgeon actually went into the OR to see
the time-out,” says the director of surgi-
cal services, Barbara Pankratz, RN, MSN.
“They felt we met all of the require-
ments.”

One issue has been the staff surgeon’s
role in patient verification, including cor-
rect patient, procedure, and site. In an
academic medical center, other members
of the surgical team, including residents,
may be part of the verification process.

The university’s protocol gives the
surgeons options, which she says the
surveyors didn’t have a problem with.

“We wanted to be sure we were true
to the intent of involving the staff sur-
geon in the site verification. The real
question is how you get safe patient care
and enable compliance,” Pankratz says.

“You may have a policy that looks good
on paper. But can you ensure compli-
ance? We decided what was critical was
involvement of the staff surgeon in the
verification process at some point prior
to incision.”

The policy states that a member of the
surgical team knowledgeable about the
patient, either the staff surgeon or resi-
dent, must mark the site. In addition, the
staff surgeon must be involved in verifi-
cation either:

- in the preop holding area by verifying
the correct patient and procedure and
signing the site
- in the OR by participating in the time-
out prior to anesthesia induction, or
- prior to incision.

“We hold the incision until the staff
surgeon makes the confirmation,”
Pankratz says.

“One surveyor commented that he
was pleased with our policy that the
scalpel is not handed to the surgeon until
the time-out is complete,” she says.

**Checkbox for time-out**

Banner Desert Medical Center in
Mesa, Ariz, uses a checkbox to document
that the time-out was performed and
indicates who was involved. The check
signifies that the time-out was conducted
according to hospital policy, says Elaine
Anderson, RN, MSN, MEd, CNOR,
director of perioperative services,
endoscopy, and central processing. The
hospital has 17 ORs.

During a survey in February 2006,
Joint Commission surveyors asked if
there was a site verification policy and if
the site and side are marked, Anderson
notes. They pulled charts to view the
documentation but didn’t go into the
ORs to observe.

Under the hospital’s policy, the sur-
geon and patient identify the site. Usually,
the surgeon does the marking, generally
with an X. The nurse observes the
process.

“We believe the surgeon should mark
the site. Ultimately, it’s his responsibil-
ity,” says Anderson. “The majority of our
surgeons are on board with this.”
A challenge on site marking

A large community hospital in the West, surveyed in early 2006, decided to change its documentation after a comment from the surveyor indicated that the staff might not be remembering to call out the 5 elements during the time-out. The facility also received an RFI for not requiring the physician to mark the site in most cases. The RFI was withdrawn after the hospital challenged it.

The online documentation was changed to include the 5 elements instead of having the staff simply mark Yes or No for the time-out. Though there were posters in each OR reminding nurses to verify the 5 elements, the staff sometimes forgot to look at the posters.

“We realized our documentation could be improved to support the process,” says the OR director, who did not wish to be named.

Because the computers in some ORs are not in a convenient place, the nurses, with chart in hand, initially document the 5 elements on a grease board and then transfer the documentation to the computer. The documentation is audited to make sure it occurs before the incision. “We’re glad we made the change. We did it to cue the nurses not to miss any of the elements,” she says. “It also gives leaders a way to check that it is being done.”

The site-marking policy says:
• When possible, the patient marks the site and initials it.
• If the patient can identify the site but can’t mark it, the nurse marks it with the patient’s initials.
• If the patient is unwilling or incapable of marking the site because of a medical condition, age, or other factors, the surgeon or assistant initials the site.

“The surveyor didn’t like that the physician doesn’t mark the site,” the director says. “But we pointed out that the Joint Commission’s language says the person performing the procedure should, not must, mark the site, and they withdrew the recommendation.”

Documentation changed after wrong-site incident

One organization changed its documentation after a wrong-site surgery made it clear that simply checking a box, “Time-out: Yes or No” was not sufficient.

“We now document exactly what procedure the time-out was called for, who was present, and that all attendees agree,” says the OR manager, who did not want to be identified.

After the wrong-site case, the staff and surgeon disputed which procedure was named during the time-out, but the staff had no documentation to back them up.

Now for the time-out process, the circulating nurse calls for the time-out, reads the name of the procedure directly from the surgical consent, and asks for all team members to state that they agree. In the electronic record, the nurse checks that the time-out was called for and types into the comment section of the electronic record: “Time out called for [name of procedure]. All attendees agreed.” As reminder, a card is posted on each computer that says:
• Time-out called for.
• Type procedure in comment section.
• All attendees agree.

Two time-outs

The hospital’s policy calls for 2 time-outs:
1. When the patient arrives in the OR, the circulating nurse will verify with the patient (if able) and anesthesiologist the patient’s name, procedure, and allergy status. In local or IV sedation cases, the circulating nurse, the nurse who monitors the sedation, and the scrub person verify the information.

2. In the OR prior to the incision, the circulating nurse will show the scrub person the surgical consent. While standing next to the surgical field, the nurse will verify the correct patient, procedure, and surgical site with all case attendees. A verbal “yes” that they agree is mandatory from all case attendees.

“Ask yourself, ‘What information does your documentation contain?’” the manager says. “Does it provide enough information to protect you and your hospital? If it doesn’t, and there’s a question, it’s a he-said, she-said situation.”

The Joint Commission reviewed the documentation during a recent survey. “They thought it was great,” she says. “They were also impressed with our audit results.”

The audit is conducted in 2 ways:
• The OR assistant nurse manager observes 25 cases a month out of about 350 the facility performs.

JCAHO issues 2007 patient safety goals

The Joint Commission on Accreditation of Healthcare Organizations on June 12 announced its 2007 National Patient Safety Goals.

Hospitals/critical access hospitals

Two new goals are added:
• Encourage patients’ active involvement in their own care as a patient safety strategy.
  • Define and communicate the means for patients and their families to report concerns about safety and encourage them to do so.
• The organization identifies safety risks inherent in its patient population.
  • The organization identifies patients at risk for suicide. (This applies to psychiatric hospitals and patients who are being treated for emotional or behavioral disorders in general hospitals.)

In addition, new language has been added under the current medication-reconciliation goal. Under the requirement that a complete list of the patient’s medications is communicated to the next provider when a patient is referred or discharged to another setting, new language states: The complete list of medications is also provided to the patient on discharge from the facility.

Ambulatory care and office-based surgery

One new goal is added:
• Encourage patients’ active involvement in their own care as a patient safety strategy.
  • Define and communicate the means for patients and their families to report concerns about safety and encourage them to do so.

Ambulatory care and office-based surgery facilities must also comply with the new medication-reconciliation language requiring patients to receive a complete list of medications upon discharge.

The goals are at www.jcaho.org.

• A random audit of the electronic documentation is conducted. Results are tallied in an Excel spreadsheet and used to produce a monthly report for the hospital’s risk manager.
Ensuring consistent time-out in a system

To ensure consistency for its 3 campuses, the UMass Memorial Medical Center, a 743-bed Level I trauma center and teaching hospital of the University of Massachusetts Medical Center, Worcester, has implemented a systemwide procedure for its time-out process for surgical site verification. The campuses include a 9-OR ambulatory surgery center and 2 inpatient campuses with a total of 40 ORs. The process includes a policy and checklist that apply to all areas where patients have invasive procedures.

We found practitioners had different understandings of the Joint Commission on Accreditation of Healthcare Organizations’s Universal Protocol for site verification, which resulted in variation in practice and compliance. With the need to ensure patient safety and continuous readiness for Joint Commission surveys, it was critical to communicate and implement the protocol requirements.

The checklist is a 1-page, 1-sided form used to document the final safety pause/time-out conducted by the entire surgical team just prior to the start of the procedure. The checklist is completed by the circulating RN and becomes part of the patient’s permanent medical record.

The policy and process were communicated to all practitioners on laminated cards at multiple medical staff meetings and at unit-based staff meetings.

To monitor compliance, managers perform retrospective chart audits, and the medical record department performs concurrent reviews. Findings are sent to the medical center’s senior leadership, with the expectation that the data will be shared with involved departments.

This series of checks and balances provides systems and policies that improve work processes and enhance patient safety.

In a survey by the Joint Commission in July 2005, the surveyors had positive comments about our process and checklist.

—Sharon Canty Hylka, RN, MSN, CNA
UMass Memorial Medical Center
Worcester, Mass

Laminated cue card

Universal Protocol to eliminate wrong-patient, wrong-side, wrong-site surgery

Prior to any procedure (except phlebotomy, peripheral IV catheter, Foley catheterization, or nasogastric tube placement), inpatient or outpatient:

Do: Verify the patient’s identification using 2 unique patient identifiers.

Do: The physician performing the procedure marks the site with his/her initials with a permanent marker that is visible after the skin prep and drape are applied for any procedure that involves laterality, multiple structures, or multiple levels. (See policy for exclusions.)

Do: Prior to the start of the procedure, a time-out is performed. The time-out requires active, verbal communication by the procedure team to confirm the correct patient, site and side, agreement on the procedure, correct patient position, and the availability of correct equipment and/or implants.

Do: The time-out is performed for all invasive procedures except in an emergency if the risks outweigh the benefits.

Do: The time-out is documented in the written or dictated procedure note.

Source: UMass Memorial Medical Center, Worcester.

The UMass Universal Protocol policy and checklist are in the OR Manager Toolbox at www.ormanager.com.
Attitudes Questionnaire, adapted from aviation, to ask participants to rate their peers on teamwork and the safety climate of their organization.

**OR personnel rate each other**

The article in the *Journal of the American College of Surgeons* focused on the ratings OR caregivers give one another.

OR nurses, both in scrub and circulating roles, were given the highest teamwork ratings, 4.2 out of 5.0. Though surgeons and anesthesiologists rated teamwork within their own disciplines the highest, their group received the lowest overall rating. OR nurses rated teamwork with surgeons as only 3.5 out of 5.0, while surgeons gave OR nurses higher ratings, 4.4 out of 5.0.

The difference in nurses’ and surgeons’ scores “was a surprise to me,” Dr Makary told OR Manager. “Of course, I was raised in the culture where the surgeon was the captain of the ship. I think what we have learned is that nurses have a different perspective on what is going on during the case.”

The authors note “fundamental and long-standing differences” between nurses and surgeons, including status, authority, gender, training, and patient care responsibilities.

“Nurses often describe good collaboration as having their input respected, and physicians often describe good collaboration as having nurses who anticipate their needs and follow instructions,” they say.

**How OR personnel rate their cultures**

The *Annals of Surgery* article describes how OR personnel rated their hospital’s safety climate on 7 items (sidebar). For 6 of the 7, the ratings didn’t differ significantly by OR provider, but OR nurses gave lower ratings to one item: “I would feel safe being treated here as a patient.” Only 78% of OR nurses agreed with that statement, while 93% of surgeons and 80% of anesthesiologists did.

The hospitals also varied widely in safety ratings they received from their OR personnel—with scores ranging from 16% to 100%. Within each hospital, ratings were fairly uniform.

The researchers say the study demonstrates that the Safety Attitudes Questionnaire is a valid tool for measuring the OR safety culture within a hospital and for benchmarking among hospitals. For example, a hospital could use the questionnaire to take a baseline measurement of its safety culture, then remeasure after introducing a strategy such as preoperative briefings to see if it made a difference in OR teams’ perceptions of safety. About 500 hospitals are using the questionnaire, Dr Makary says.

**Safety best practices**

The study may also help to identify some safety best practices.

“We’re linking the hospitals with the good cultures [in the study] with the hospitals with the poor cultures” so they can learn, says Dr Makary, who is an assistant professor of surgery at Johns Hopkins.

The researchers intend to publish more findings showing the effect of preop briefings and debriefings on perceptions of safety (related article).

Teamwork research is gaining visibility among surgeons, he says.

“For the first time, we have talked about teamwork and communication in formal talks at the most widely attended surgical meetings,” Dr Makary says. “All of the surgical chairs in the country would tell you that patient safety is their number 1 priority. It is just figuring out how to measure it, improve it, and move forward. Our goal is to use this as a tool to move forward.”

**References**


**How safe is your culture?**

OR personnel rated their culture on these 7 items:

- I am encouraged by my colleagues to report any patient concerns I may have.
- The culture in this clinical area makes it easy to learn from the mistakes of others.
- Medical errors are handled appropriately in this clinical area.
- I know the proper channels to direct questions regarding patient safety in this clinical area.
- I receive appropriate feedback about my performance.
- I would feel safe being treated here as a patient.
- In this clinical area, it is difficult to discuss mistakes.

**Safety Attitudes Questionnaire**

The Safety Attitudes Questionnaire:

- was originally developed to address accidents in the airline industry
- was adapted from aviation for health care by researchers at the University of Texas and Johns Hopkins
- has 65 questions in 6 areas: teamwork climate, safety climate, job satisfaction, perceptions of management, stress recognition, and working conditions
- is considered a valid tool for measuring the OR safety culture within an OR and throughout the hospital

*For more information, go to the Agency for Healthcare Research & Quality Patient Safety Network web site at http://psnet.ahrq.gov/resourc.aspx?resourceID=1439*
OR Communications

OR briefings aim to aid communication

Johns Hopkins started using preoperative briefings and postoperative debriefings in its inpatient ORs in May to help improve communication and the culture of safety.

“We have been promoting the briefings for the past year, and a lot of surgeons are doing it. Hopefully, it will become a routine practice like the time-out,” says Martin A. Makary, MD, MPH, assistant professor of surgery.

The goal of the briefings “is to promote a team discussion,” says Lisa Rowen, DNSc, RN, director of nursing for the Department of Surgery. Johns Hopkins has 39 inpatient ORs.

The preop briefing takes 1 to 2 minutes and is an expanded version of the time-out for surgical site verification. The purpose is to check critical information and promote open communication.

The debriefing is a short discussion that takes place in the OR immediately after surgery, particularly after difficult cases or a case where something unexpected happened.

Preoperative briefing

Preoperative briefing steps include:
1. Introduce team members by first and last names and roles. Names are written on a whiteboard in the OR. “One thing we have learned is that a lot of people don’t know each other’s names in the OR even as they are operating on humans in these important cases,” Dr Makary says.
2. Conduct time-out for surgical site verification to meet the requirement of the Joint Commission on Accreditation of Healthcare Organizations.
3. Discuss goals for the case and any issues that should be anticipated.
4. Discuss issues by discipline: surgeon, anesthesia provider, nurse, surgical technologist, and any other team member.

The briefing is performed in the OR before the incision, though there is still discussion about whether it should be done while the patient is awake or asleep.

The briefing generally is guided by a comprehensive checklist developed with input from each discipline as well as by lessons learned from near misses and sentinel events.

The briefing allows issues to surface.

An example of an item discussed is the anticipated blood loss. Is an appropriate amount of blood available? The anesthesiologist may be anticipating a routine amount of blood loss, but the surgeon may be aware there will be more. If they discuss this during the briefing, more blood can be ordered. (An example of a briefing is on p 13.)

If the surgeon doesn’t start the briefing, the circulating nurse does. The circulating nurse also is responsible for filling out the briefing checklist, and the anesthesia provider is responsible for filling out the debriefing checklist.

“A great thing about the briefing is that it allows issues to surface,” Rowen says. In one case that involved 2 surgeons of different specialties, they discovered during the briefing that they had different thoughts about the goal of the procedure. They decided to cancel the case until they worked out their differences.

“Would it have been better for them to have had that conversation earlier? Yes,” Rowen says. “But it would have been worse to have it after the incision was made.”

Johns Hopkins’s detailed briefing tool will be described in a paper to be published in the Archives of Surgery.

First-name project

One of the first steps in implementing the briefings was to encourage team members to call each other by their first names once the patient is asleep. The rationale is that team members will feel more comfortable speaking up if they know one another’s names, and first names help put the team on a more equal footing. It’s more likely to encourage teamwork than calling out, “Hey, Anesthesia.”

Though getting the staff comfortable with first names sounds simple, it wasn’t easy, Rowen notes. “Some nurses said, ‘I can’t do that. It’s disrespectful.’ What we didn’t realize is how deeply embedded the hierarchy is,” she says.

After much discussion and many meetings, the first breakthrough came when the previous chair of surgery told a large group of nurses and surgical techs to call him by his first name, John.

Over several years, the culture has changed. “The nursing staff recognizes that calling all team members by their first names establishes an equitable environment, and familiarity promotes a level of comfort to share concerns,” Rowen says.

Postoperative debriefing

The postop debriefing includes these steps:
1. Verify the specimen. “We have learned specimen errors and labeling errors are common,” Dr Makary says.
2. Ask if anything could have been done better.
3. Ask if anything could have been done more safely and efficiently. If so, a team member is appointed to address the issue.
4. Discuss plans for postop care, such as pain control and prophylaxis for deep-vein thrombosis.

Timing is a challenge because the debriefing is supposed to take place before the attending surgeon leaves the room, usually when the team is ready to close the incision. But that can be a busy time for anesthesia providers and nursing.

“It’s a big culture change. It’s new, and we’re still working out the kinks,” Rowen says.

Training for OR teams

Teamwork training laid the groundwork for the briefings. The ORs were closed for 4 hours, and about 700 personnel received training, including circulating nurses, surgical technologists, surgeons, anesthesiologists, physician assistants, perfusionists, and residents.

William Taggart, a human factors expert formerly with Southwest Airlines now with the University of Texas and SaferHealthcare, Denver, who led the training, explains that it covers the cul-
Sample preoperative briefing

This is how an OR team might conduct a briefing:

Richard Davis (surgeon): This is Mr Robert Jones. He is a 62-year-old male with cancer of the head of the pancreas. We are proposing to do a Whipple and a feeding jejunostomy. Julie, please read the consent.

Julie (circulating nurse): Mr Robert Jones, ID 237789, scheduled for a Whipple and a feeding jejunostomy with surgeon Dr Richard Davis.

Dr Davis: Thanks. He has been cleared by cardiology. He is not taking any medications that will affect the case. The patient has a latex allergy.

Julie: We have been through the latex-free setup checklist.

Dr Davis: Right. He had a previous bowel resection in 2003. I envision the case will take about 4 hours. Bill [anesthesiologist], I would just as soon that you not give a lot of fluid; 1,200 to 1,600 cc is OK during the case. If you need to give more, let me know. I am going to explore the patient first. If by 8:45, I haven’t said that I am going ahead, please ask me. Antibiotics were started at 6:45. Right, Julie?

Julie: That’s correct.

Dr Davis: Blood is available. If anyone sees anything they are uncomfortable with or is having any difficulties, please say so. Bill, if you are having trouble with blood pressure, pulse, urine output, or oxygenation, please say something. And if I run into something I don’t expect or get into any bleeding or anything that affects the operation, I’ll let you know. Does anyone have any questions or concerns? We will need an ICU bed. So if we go ahead, by 10, you should count on that bed. Bill, any concerns?

Bill: Everything is looking good. Blood pressure 120/80.

Dr Davis: John [scrub person], any concerns?

John: None here.

Dr Davis: Julie, any nursing concerns?

Julie: Just a reminder that the patient is allergic to latex.

Dr Davis: Let’s go.

Source: William Taggart, University of Texas and SaferHealthcare. SaferHealthcare can be reached at 866/398-8083 or www.saferhealthcare.com.

Getting briefings off the ground

OR leadership stands behind the briefings, says Rowen, including the chief of surgery, chief of anesthesia, and director of critical care medicine. Letters were sent to all nursing and medical staff saying briefings would begin on May 1. Dr Davis:

The chief of surgery, Julie Freischlag, MD, FACS, believes so strongly in briefings that she has told the OR Executive Committee that surgeons who resist performing them should lose their block time, Rowen notes.

The ORs geared up for briefings by discussing them at grand rounds for nurses, anesthesia personnel, and surgeons, as well as combined grand rounds.

Preparation has to go beyond training. Taggart adds, “It can’t just be a seminar—there has to be followup.” There needs to be a group guiding the application. Johns Hopkins has a “teamwork team” that fostered briefings and keeps the momentum up.

Will the briefings make a difference?

To find out, Johns Hopkins is measuring perceptions of safety before and after implementing briefings, using the Safety Attitudes Questionnaire developed by J. Bryan Sexton and colleagues. (See p 11.)

Suggestions for leaders

OR briefings can be a great way to prompt discussion of important issues, “but you need to lay groundwork,” Rowen advises. Her suggestions for OR leaders who want to introduce briefings:

• Get buy-in from OR leadership.
• Provide training for all disciplines.
• Have honest conversations about sentinel events and near misses to see how briefings could help prevent them.

“A lot of hospitals keep these issues hush-hush,” Rowen says. “Here we have developed a transparent culture. When you can say to one another, ‘This almost happened,’ you can understand and address issues that protect patients.”

References


APIC, Tyco launch infection prevention site

The Association for Professionals in Infection Control and Epidemiology (APIC) and Tyco Healthcare/Kendall on June 6 launched a new web site to educate health care professionals and consumers on infection control.

APIC says the site is educational and noncommercial and will offer research findings, statistics, and articles on preventing infections.

—www.preventinfection.org
Tracking supply charges with bar coding

Improving supply chain performance is one of the biggest operational challenges in ORs. Hospitals want to increase charge capture, improve supply replenishment and implant records, improve efficiency, reduce turnaround time, and eliminate supply waste.

Some ORs are turning to automated supply systems with bar coding add-ons like Omnicell’s OptiFlex SS, Cardinal Health’s Pyxis ScanAssist and ParAssist, GE Medical Systems’ Centricity, Meditech’s OR Management, and McKesson’s SupplyScan.

Some systems are in early development for bar coding and interfacing with other hospital information systems, says Helen Blanton, RN, MS, MA, an OR nurse based in Eugene, Ore, who has participated in multiple implementation projects for information systems.

The ultimate process

“When bar coding is linked with the materials management system, this allows tracking from purchase to delivery to patient,” she says. “The ultimate process is when the materials management and surgery systems are compatible so all elements are available in one record that contains patient and supply data.”

“The OR is a dynamic and time-critical environment,” notes Ken Perez, Omnicell’s vice president of marketing. “You need systems that are easy to use that do not hinder workflow or get in the way.”

A typical automated bar coding supply system works like this: A nurse logs into the system, enters the patient ID and removes and scans the supply item. In most systems, software then sends a record to the patient charging system through an interface. For supply items without bar codes, nurses can enter the item into the computer system, but it is slower, experts say.

Supply systems also can be designed so the nurse simply touches the patient’s name on the supply station’s computer screen. The item is scanned using a barcode, data is fed into the information system where the item is billed to the patient, and the resupply order is sent out.

A promising use of bar coding is to track supply use during surgery where there frequently are lost charges and inventory adjustments due to errors in hand counting of supplies.

“ORs want to do a better job tracking supply charges from changes during surgery,” says Charlotte Miller, BSN, MBA, director of surgical services product marketing with McKesson Provider Technologies, St Paul, Minn.

For example, when setting up the room for surgery, the circulator may realize something is missing from the case cart because there was a change in surgery or the supply has not come up to the department yet.

“The circulator has to handpick additional items,” Miller says. “ORs want to be able to track these changes and charge the patient.”

ORs try approaches

In interviews, 3 managers discussed their experiences with planning and implementing bar-coding systems.

Michael Frisina, administrative director for surgical services at Tuomey Healthcare System, Sumter, SC, began planning in 2003 to incorporate the bar coding system into the OR’s materials management system.

“I wanted to increase revenue and reduce costs,” he says.

In May 2005, the bar coding system was launched in the hospital’s 14 main ORs, surgery center, and cardiac catheterization and radiology labs.

Each day, surgical or supply technicians are responsible for updating any revised physician preference cards in the materials management system. The day before surgery, the materials management and sterile processing department download the OR schedule from the hospital information system and pull supplies for OR delivery. The system automatically places a reorder when supplies are decremented and par levels drop.

“Each case gets its own pull sheet with the bar code, and the patient gets the same bar code that aligns with the particular procedure,” Frisina says.
Overcoming staff resistance to bar coding

The most common objection from staff about bar coding is, “This will interfere with patient care.” Some strategies:

Get staff involved
Have them attend presentations and demonstrations so they can see what is being proposed, says Helen Blanton, RN, MS, MA, an OR nurse based in Eugene, Ore, who has participated in implementing multiple information systems.

“Staff dissatisfaction will negate a decision like bar coding, but early involvement and ownership will assist acceptance if staff know their concerns were heard and considered,” she adds.

Educate the staff about costs
At Tuomey Healthcare System, Sumter, SC, Michael Frisina, administrative director for surgical services, staged a major educational process before purchasing bar coding equipment.

“We showed nurses the financial losses month by month and told them that if they all want pay raises and new capital equipment, we have to make these changes,” he says.

He also showed the staff how much it costs when supplies are unnecessarily opened.

He asked them, “If you were paying for supplies yourself, how much would you pay to open them and when?”

Identify change leaders
“We identified people who expressed interest in the use of technology, and these lead clinicians became examples for the rest,” says Tracy Cleveland of Children’s Hospital of Wisconsin, Milwaukee.

The circulating nurse is responsible for managing supplies used on an exception basis. For example, “The cart includes 2 large gowns, but 1 is used, or a medium one is needed,” he says. “The nurse uses a touch screen to decrement the large gown and add the medium gown.”

Checking the interfaces
Frisina says it’s important for the OR’s inventory management system to interface with the materials management and billing systems.

“We look at the interfaces every day to make sure they are running because they can go down,” he says. “We have an information system analyst, who is an OR nurse, and a certified surgical technologist, who also runs materials management in the OR, to make sure things go smoothly.”

Purchasing and installing the system cost about $436,000:

• software: $217,000
• hardware: $52,500
• license: $35,000
• interfaces: $116,500
• training/travel: $15,000.

Hardware included handheld scanners for each room and compatible computers. Annual maintenance is $5,000.

Expected savings are $50,000 to $75,000 per year from recouping lost charges and through inventory adjustments.

“It is hard to find out the real costs because we have had some volume changes, but we are doing much better,” Frisina says.

The OR’s supply error rate for lost charges—items used but not included on patient bill—dropped from 60% to 5%. For example, on one recent day, the hospital performed 32 procedures with only 1 exception, he says.

“We track each procedure and find the number of errors per case,” he explains. “Each time an item is pulled, it either has to be scanned into the system or added with a drop-in or type-in feature.” If a staff member uses an item and does not scan it or add it to the system, an inventory error is produced that results in a failure to reorder and possibly a failure to charge the patient if it is a billable item.

A surgery center goes live
Children’s Hospital of Wisconsin, Milwaukee, plans to install a bar-coding system for the OR’s 16 rooms. A sister facility, Children’s Surgicenter of Greater Milwaukee, went live with its bar-coding system in November 2005.

“It works very well,” says Tracy Cleveland, purchasing systems manager in materials services. “Bar coding makes the product lookup much faster. It is a major employee satisfaction issue, especially for common items like sutures. But not all products have bar codes, and staff has to look up those in the charge book or in the system using the manufacturer number or product description. Universal product numbers would help.”

Disagreement over a bar-coding standard for health care has thwarted progress in making widespread adoption of bar coding, experts say. Children’s Hospital generates its own bar codes for supplies.

“We are developing a book of bar codes, initially for orthopedic and other implants,” Cleveland says.

At the Surgicenter, each OR has a computer on a cart with an attached handheld bar code scanner.

When the case is scheduled, materials management staff fill the case cart based on automated preference cards. Items identified on the preference card are decremented from inventory automatically. If surgeons require additional items during the case, the items are scanned or entered into the system, and those items are also decremented from inventory, Cleveland says.

A team effort
“Entry of this additional information is a team effort between the circulator and the surgical tech,” he says. “They ensure that products used are identified and entered.

“Disagreement over a bar-coding standard for health care has thwarted progress in making widespread adoption of bar coding, experts say. Children’s Hospital generates its own bar codes for supplies.”

Continued on page 16
Bar coding: Where does it stand?

When you go to Wal-Mart or Albertsons, every product you buy has a bar code. All the clerk has to do is swipe the items to check you out. How convenient—and accurate—it would be if OR staff could do the same when adding supplies and instrument sets to OR cases.

Most ORs aren’t there yet. There are 2 major obstacles:

• Most supplies still don’t come from the manufacturer with bar codes on individual items. Facilities that want to use bar coding have to generate their own bar code labels for many items.

• Health care still does not have a uniform product numbering registry to identify items in health care.

Bar coding at the unit level is a chicken-and-egg problem, explains Bob Hankin of the Health Industry Business Communications Council (HIBCC), which develops bar code standards for health care.

Manufacturers label cases for distributors and purchasing departments. But the companies figure most facilities’ departments still don’t have bar-code scanners, so they don’t bar code individual items—and departments don’t get scanners because most products they use don’t have bar codes.

Lack of a universal product file

There’s also not a common file for identifying products. Health care does not have a common registry, or a medical-surgical product data utility (PDU), says Joe Pleasant, chief information officer with Premier.

“Health care needs a product data utility like other industries have,” he says. “PDU is a (universal) file where all products are registered.”

It works like this: Each product is assigned a unique identifier. When the bar code on the product is scanned, data is sent to a computer, where it is read and recorded in materials management information systems. As new items are introduced, manufacturers enter their universal product number (UPN) and supporting data into the PDU.

“Lots of hospitals are interested in automating, but because we don’t have this registry, they either aren’t doing it or are using their own bar coding system,” Pleasant says. Read about PDU at www.chestandards.org/pdu/pdumain.htm.

Two bar coding formats

Health care has 2 bar coding formats.

• HIBCC has developed bar code standards specifically for health care. Hankin estimates about 85% of medical devices use the HIBCC code formats.

• GS1 (formerly Universal Product Code), traditionally used in retailing, is also used in health care.

“Anytime you go to a grocery store you see a UPC code—that is a GS1 code,” says Pleasant, co-chair of the PDU committee for the Coalition for Health Care eStandards (CHeS), Ann Arbor, Mich. CHeS’s position statement on PDUs is at www.chestandards.org/faqs/CHespositionstatement.pdf.

HIBCC and GS1 formats are compatible but have different registries and UPNs because of manufacturer preferences, Pleasant says. “We need a uniform product numbering system,” he says. “The industry has not agreed on a common registry to read HIBCC and GS1 bar codes.”

Over the last 2 years, the US Department of Defense (DOD) has been testing a PDU it developed. CHeS is discussing testing the DOD’s PDU in hospitals, he says.

“It is possible that the government needs to dictate this because there are so many conflicting groups that are not interested in having this occur,” Pleasant says. “Some groups do not want health care organizations to be able to compare products.”

the system indicates there are 10 on the shelf, but there are really only 5, we will investigate to determine what happened to the other 5.” Nurses do not have to scan items on the preference card that are already in the system before surgery.

“Nurses only have to document items that are added to the case later,” he says.

If there are items to return to inventory, they also need to be scanned.

“That ensures we do not charge for an item that was not used and that the same item gets ordered for replenishment,” he says.

Reports are available that assist in identifying documentation errors or omissions.

“Once a discrepancy is identified, we can look at what was documented and when. We can also see what is on order. Analysis can be done with an online query, delivered reports, and/or an ad hoc reporting tool. All of the data comes from what has been documented in the software.”

The cost to implement the system was $250,000 to $300,000, which included the servers and software.

“We picked lead technicians and lead clinicians by service and did some orientation and training in advance. We did our rollout in a fairly measured way over 2 years,” Cleveland says. “It worked better giving clinicians the opportunity to know where they fit and to understand it is important to document everything because that drives replenishment.”

Analyze current system

Miller suggests that ORs conduct a process flow analysis to identify current problems in the supply chain before deciding on a bar coding system (sidebar).

“The analysis should start with the current process for supply accountability, inventory, and restocking and work back to see how items are reordered and delivered to materials purchase and resupply,” Blanton says.

Tuomey’s process analysis determined “how much waste we had in the system, how much inventory was leaving shelves, and what adjustments we had to make in restocking,” Frisina says.

Blanton suggests looking at places where bar code scanning would be beneficial and practical.

“Review available vendors and select
the top few who appear to offer the needed services,” she says. “Speak with sites currently using their services and see if they really perform as advertised.”

**Mistakes to avoid**

Rob Sobie, marketing director for Pyxis at Cardinal Health, says hospitals make a number of mistakes in evaluating, installing, and using bar-coding systems.

Selecting unproven systems, ones difficult to use, or those unable to interface with existing systems are common mistakes, Blanton says.

Sobie agrees. “There are some (vendors) who have not developed interfaces with other products,” he says. “Hospitals need to make sure the system they purchase already has the ability to interface with other hospital systems.”

Another mistake is not including the OR in the selection process.

“Not including surgery is a serious error because only they know the operational impact of implementing such a process,” says Blanton.

Managers also need to challenge the mindset that the OR is somehow separate from the main hospital.

“There must be integration in the supply chain to get all the benefits in cost savings and efficiencies,” says Cleveland.

Blanton says the effort can be worthwhile. “If everything works, you don’t have to chase extra items, your turn-around time will decrease, and waste will decrease because you don’t open things you don’t need.”

— Jay Greene

Jay Greene is a freelance writer in Thompson, Conn.

### Is it appropriate to charge patient for an implant that was wasted?

These answers to frequently asked questions from OR business managers are provided by MedLearn, a St Paul, Minn-based firm specializing in coding, reimbursement, and compliance.

**Q Is it appropriate to charge a patient for a “wasted” implant, for example, a screw that a surgeon tried but was the wrong size or an implant that is contaminated?**

**MedLearn consultants:** No, this should be factored into the overall charge for this type of procedure and not charged to the patient. The patient should only be charged for what is actually used. The facility should set a policy for such occurrences and follow it for both inpatient and outpatient procedures. For failed or defective devices, the Centers for Medicare and Medicaid Services (CMS) advises hospitals to contact the implant manufacturer and ask that the failed device be replaced at no cost to the facility.

**Q Is there guidance from Medicare on charging for wasted implants? If so, where can it be found?**

**MedLearn consultants:** The only official guidance from CMS that we can find on this specific topic is related to outpatient procedures and is in Transmittal A-02-050 (June 17, 2002). Information about billing for devices under the hospital outpatient prospective payment system (OPPS) can be found in the online Medicare Claims Processing Manual, Chapter 4, Section 61, at www.cms.hhs.gov/manuals/downloads/clm104k04.pdf.

Transmittal A-02-050 relates to transitional pass-through devices for outpatient procedures. CMS stated: “We realize that there may be instances where an implant is tried but later removed due to inappropriate size selection of the device by the physician. In such instances, Medicare will provide separate reimbursement for both devices.”

This transmittal does not directly address a “contaminated” device used in an outpatient procedure, but it does state the following about a device that fractures: “In instances where the physician

**Q How should a wasted implant be documented?**

**MedLearn consultants:** This probably should be documented with a note in the patient’s record.

**Q One hospital uses this approach: It does charge if the implant is the wrong size but does not charge if the implant is dropped or contaminated. Would your consultants agree with that approach?**

**MedLearn consultants:** Payment from Medicare is limited, but a hospital is allowed to charge the total of its cost for a service provided. The insurers will pay only to its preset allowed levels for designated services. This payment may be different because of negotiated levels of payment from payers for the same service.

As stated above, the costs associated with implants should be handled the same for both inpatients and outpatients. There will be differences in how Medicare pays for some of them, but the reporting of the costs of resources used (by reporting cost-based charges) would be the same. With the exception of the few items on the transitional pass-through list, implantable devices are not separately reimbursed. The allowance for payment of the cost of implants is packaged into outpatient APC and inpatient DRG rates. The cost to the facility related to the implantation includes all supplies and implants used, regardless of the total dollar value, and all should be reported with the appropriate codes. For cost-reporting purposes, charges captured in the documentation of resource usage apply to all categories of patient services.


Advice on this issue may vary. Managers should seek the advice of their chargemaster specialists and fiscal intermediaries.
Using computer’s data to guide OR QI

Part of a continuing series on the Surgical Care Improvement Project.

A lot of time and energy is being invested in surgical quality improvement (QI). ORs are eliminating razors and refining processes for prophylactic antibiotics, normothermia, glycemic control, and other issues.

Is compliance improving? Are infections being prevented?

For many, finding out takes a laborious chart review. But some are harnessing their information systems to capture data and get reports quickly.

Tallahassee (Fla) Memorial Healthcare, a safety net hospital with 770 beds and 19,000 annual surgical cases, began using electronic data to guide surgical QI in 2004 as it geared up for the Institute for Healthcare Improvement’s (IHI) breakthrough series on reducing surgical infections and later its 100,000 Lives Campaign (www.ihi.org).

Tracking data made an immediate difference. As soon as circulating nurses began asking, “Have the preop antibiotics been ordered?” and entering that data in the computer, compliance rose from 66% to 83% in the targeted groups of patients (open heart, total joints, gastric bypass, colon resections, and major vascular cases).

Nearly 100% of patients now receive antibiotics within 1 hour of the incision. In this target group, the number of cases between infections improved from an average of 24 to 55.

“By looking at the number of cases between infections, we are better able to see the incidence of a rare event such as an infection,” says Todd Schneider, improvement advisor and management engineer.

Tallahassee already had a good foundation for QI as 1 of 7 US hospitals receiving Pursuing Perfection grants from the Robert Wood Johnson Foundation, which focused on redesigning systems to achieve dramatic improvements.

Tallahassee’s ORs introduced electronic intraoperative nursing documentation in 2003, using SurgiNet, which is part of the hospitalwide information system from Cerner. The system includes an electronic patient record. As a result, the OR can retrieve patient information such as allergies, which helps in making sure patients receive the right antibiotic.

The hospital’s IT and QI departments have analysts who design screens and reports to help the OR capture and report data.

Delivering antibiotics on time

Data have been instrumental in fine-tuning the process for preoperative antibiotics. Each time the team adjusted the process, they collected data to measure their results (chart, p 21):

• The first change was to add a prompt to the OR nursing documentation to ask: “Have preop antibiotics been ordered?” “The mere fact that we were asking the question helped us improve our numbers,” says Anne White, RN, BSN, CNOR, director of the main OR. Tallahassee is now collecting data on antibiotics for its entire surgical population, not just the initial target group.

• A month later, the team also began collecting data about which antibiotic was given, using a drop-down menu so nurses can select the drug. (Nurses enter the data because anesthesia documentation isn’t automated.) Reports were generated to show which antibiotics individual physicians were giving as well as for which procedures patients received the right antibiotics and for which ones they did not.

• The next step was to boost the percentage of patients who received the antibiotic within 30 to 60 minutes of the incision. Data was reviewed to see what time patients entered the OR and what time the incision was made. For most patients, the time was 20 to 30 minutes.

• To standardize the process, the team tried having the holding area nurse obtain the antibiotic and place it with the patient. The anesthesia provider would then draw up the drug and give it, but this usually happened after the patient was in the OR. The anesthesia provider would get busy, and the antibiotic often was given too close to the incision time. But if the holding area nurse started the antibiotic, and surgery was delayed, too much time would elapse before the incision. “For consistency, the antibiotic has to be given right when the patient leaves the holding area and goes to the OR,” White says. “With this process, we hit the target time of 30 to 60 minutes before the incision about 60% to 70% of the time.”

• The process still did not provide for patients without orders. To bridge this gap, names of patients eligible for antibiotics were highlighted on the OR schedule. The holding area nurse could ask the surgeon for the order. But sometimes these patients were missed. Holding area staff were then asked to document actions taken on eligible patients. That helped the QI team understand which surgeons were receptive and which surgeons managers would need to talk with.

Current process

The current process is to hang the antibiotic while the patient is in the holding area and have the nurse anesthetist start it when he or she comes to interview the patient. For patients who receive vancomycin and other antibiotics that require a longer preincision time, the holding area nurse sets up and starts the administration.

There is a separate process for open-heart patients, who have a much longer in-room to incision time. The antibiotic is given in the OR after placement of the Swan-Ganz catheter, unless the antibiotic is vancomycin. Vancomycin is started when the open-heart patient leaves the holding area.
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**Quality improvement**

*Continued from page 18*

The QI team continues to work with surgeons to indicate the timing of the antibiotic on their standard preop order sets. That will help create a system that doesn’t depend on the holding area staff contacting surgeons for orders.

Now that the process is standardized, the reports have been modified to help the team spot cases where the process breaks down.

“We are looking at 100% of our cases, and we can get real-time data from yesterday,” Schneider says.

The newest report is sorted by time, with patients who received antibiotics too late at the top and those who received antibiotics too early at the bottom.

“Those are the ones I look at,” White says.

“Before, we were looking at our percentage of success. Now we are just targeting what happened in the cases where the process didn’t work.”

Says Schneider, “We can examine what happened in the past 7 days while it is still fresh in our minds. We can ask the staff about specific cases. That allows us to focus on action immediately. That has been our biggest gain.”

Tallahassee’s major outcome measure is the number of cases between infections.

“Increasing the cases between infections is our goal,” Schneider says. “Essentially, to double the cases between infections would be almost identical to cutting the infection rate in half.”

**Getting physicians on board**

Electronic reporting has helped get buy-in from physicians.

“Until you can show them the numbers, you really can’t get their attention,” White says.

For example, physicians must have orders written for the antibiotic process to happen smoothly. Automated reports showed that the physicians who didn’t have preop orders written were also the ones who were failing to have antibiotics given in a timely manner.

“By showing them the data, we could start to get standardized preop orders,” White says. She went to the surgical section meetings each month to show the surgeons the data and encourage them to discuss it.

“Having to do this manually would be nearly impossible,” she says. “Without the computer support and IT staff we would never have been able to do this.”

**Lessons learned**

Tallahassee’s tips for a successful initiative:

- “You have to give people feedback,” says White. “You have to have data so you can show people where you are and how you have improved.”
- When the initiative started, White says she thought to herself, “I don’t know why we’re doing this. We’re giving our antibiotics.”

But the data showed the drugs weren’t given as consistently as she thought.

- You can’t make improvements on your own. “OR managers sometimes think they have the tools, and they can do it themselves. But you need help from the staff, the surgeons, the IT department, and other resources.”
- Once your numbers look good, you have to work to keep them there. “You can’t just say you fixed it and look away. You have to continue to look at your data.”

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### Making headway on SCIP measures

This article is the third in a series focusing on the Surgical Care Improvement Project (SCIP).

SCIP targets 4 areas:

- surgical site infections
- adverse cardiac events in patients having noncardiac surgery
- venous thromboembolism
- perioperative ventilator-related pneumonia.

Previous articles discussed antibiotic prophylaxis (April 2006) and venous thromboembolism prevention (May 2006).

Practical tools and other information on SCIP are at www.medqic.org/scip. To find tools, look under each SCIP category, then click Tools.
Primary care physicians avoid sending patients to a particular cardiologist because they think the specialist is incompetent.

A pharmacist fails to change an incorrect prescription out of fear the physician who ordered it will become hostile and confrontational.

An administrator is reluctant to drive quality improvement because some physicians have been uncooperative in the past.

“Nobody says anything. Why?” asked John F. Bourke in his Thursday keynote at the OR Business Management Conference May 10 to 12 in Austin, Tex. “It’s because they have a fear of confrontation. You overcome this by talking it over.”

Avoiding uncomfortable conversations by working around those who are troublesome “results in a huge loss in productivity,” said Bourke, president of Bourke & Associates, a Plano, Tex-based consulting and training company.

There are even more serious consequences for avoiding crucial confrontations—medical errors, patient injuries, and a loss of reputation for both the individual and institution.

And once manageable problems become chronic and affect the hospital’s culture and environment, good people leave, and troublesome people stay. This creates a culture of avoidance and negativity, he says.

“The goal should be to improve patient care. Pledge to the other person: If I see you do something that jeopardizes patient care, I will tell you,” said Bourke. In addition to his keynote, Bourke taught the tools of “crucial confrontations” in 2 breakout sessions.

Bourke is a master certified trainer and associate of VitalSmarts, a change management training company whose owners authored the acclaimed business books, Crucial Conversations (McGraw-Hill, 2002) and Crucial Confrontations (McGraw-Hill, 2005).

The 231 attendees at the 7th Annual OR Business Management Conference chose among 4 all-day seminars and 15 breakout sessions. OR directors, OR business managers, materials managers, and others interested in the financial side of surgery heard topics including OR design and construction, inventory control, supply chain management, scheduling, and teambuilding.

Other conference highlights:
Daniel Beney, medical planner and engineer with Harley Ellis Devereaux, Southfield, Mich, discussed key planning principles for building a new surgical suite. He listed 5 predesign tasks and 5 tips to keep the project moving.

Five predesign tasks:
• Create a multi-disciplinary project team to set the scope and objectives for the project.
• Hire a medical equipment planner.
• Conduct site visits of existing facilities.
• Hire the architect and construction manager.
• Five tips to keep the project moving:
• Involve the project team in design review meetings.
• Create a final equipment list with technical information before the design phase.
• Create a 3-dimensional virtual tour or mock-up of the proposed OR design.
• Develop an issues list and create a PERT (Project Evaluation and Review Technique critical path) chart to plan the key milestones and activities needed to complete the project.

“I never get the ideal situation when I work on a project, especially a remodeling one,” Beney says. “I always make adjustments. A PERT chart gives me a general idea of who is responsible for each major component.”

Allen Caudle and Kate Rogers, RN, MSN, CNOR, of Swedish Medical Center, Seattle, discussed the importance of using a value analysis team (VAT) to evaluate new products and equipment before making purchasing decisions.

“We try to make decisions about what’s going to happen rather than what’s happened already,” says Caudle, vice president of supply chain management.

A VAT is a multidisciplinary group, including physicians, that has product knowledge, financial analysis skills, and purchasing expertise to make sound decisions when acquiring new products and equipment. The team sets up a process and policies for physicians and others to follow in submitting purchasing requests, meets regularly to review requests, and has an appeals process.

“We tell the vendors, ‘If you don’t have a purchase order, you don’t get (your product or equipment) into (the OR),’” said Rogers, who is executive director of perioperative services. “Our process is not perfect, but it helps.”

—Jay Greene

Jay Greene is a freelance writer in Thompson, Conn.
Ten tips for purchasing new technology

These 10 tips for purchasing new technology were offered by Anthony J. Montagnolo, executive vice president and chief operating officer for ECRI, at the OR Business Management Conference May 10 to 12 in Austin, Tex. ECRI is a nonprofit technology assessment organization in Plymouth Meeting, Pa.

Tip 1: Carpe datum—seize the data

Before purchasing any technology, make sure there is a business case for acquiring it. “Data is not the plural of anecdote,” Montagnolo said, quoting quality improvement guru Don Berwick, MD.

“Many times, we adopt new technology before we need to. There is an opportunity cost to that—if we buy a technology too soon, we don’t have the money to invest in something else that might be of more benefit.”

An example is robotic surgery for coronary artery bypass grafting, which some institutions invested in several years ago when its use was limited primarily to single-vessel disease. Some surgeons who were initially enthusiastic found the learning curve was longer than expected, and hospitals learned there would be only a few patients. As it turns out, the most widely used application of robotic surgery today is prostatectomy.

Tip 2: The ‘field of dreams’ corollary

This tongue-in-cheek corollary states: “If they build it, we will buy it. If we buy it, the feds will pay for it. If we have it, the physicians will use it. If we have it, the patients will come to it. If we use it, we will make money.”

“You can’t assume that if you buy a device, you will make money anymore,” Montagnolo says. If there is reimbursement today, remember revenue isn’t static. “If you do an analysis on current reimbursement, it may change and could go down over time. Try to figure out the trends. Has reimbursement in this area been rising or decreasing?”

Tip 3: Beware of the Centers of Excellence syndrome

Be wary of the statement, “We need to buy this because we are a Center of Excellence.”

“Being a Center of Excellence isn’t an adequate justification for making a technology decision,” he says. “Excellence should be based on your clinical outcomes. You should be asking, does this technology make good clinical and business sense?”

Tip 4: You can’t use an old map to find a new land

More imaging technology is being incorporated into ORs. Eventually, most ORs will need more sophisticated equipment. Timing and priority setting are critical.

A best practice is to set up a technology advisory committee and develop a systematic process for making decisions, Montagnolo says.

The most important success factor is the people on the committee. “You need physicians and administrators who are as objective as possible,” he says. Too often, the members are technology advocates who threaten to take their patients elsewhere if they don’t get what they want.

Developing a strategic technology plan for the OR also helps in setting priorities. The plan doesn’t have to be complicated. It should list acquisition priorities for the next 4 to 5 years, not neglecting replacement items.

“Tf you don’t have a plan, when capital budget time comes, you won’t have time to analyze your priorities,” he says.

Tip 5: Trust, but verify

“When you buy a car, you take it for a test drive. Why should you take a million-dollar risk on an untested technology?” he says.

Some approaches:

• Try to set up a trial before you buy.
• Develop a decision analysis matrix to compare vendors. On the matrix, list the technology’s features and set up a column for each vendor, noting which vendors have those features and how they compare.

“The matrix doesn’t have to be too complicated,” he says. “Most decisions come down to a handful of factors.”

Tip 6: Create competition

Avoid the “cupholder syndrome,” where you become so taken with a minor feature like a car’s cupholder that you lose your objectivity about a purchase. Montagnolo remembers one committee that spent a half-hour debating about the handle on an imaging table.

“The most important thing in getting a good price is competition. If you get fixed on one feature, you may lose your bargaining power,” he says. “Rarely is there only one choice.”

Tip 7: Remember the razor blade

Gillette made a business with the strategy: “Give ‘em the razor and sell ‘em the blades.” That’s every manufacturer’s dream,” an ongoing revenue stream, Montagnolo says. “You need to understand the true cost of ownership—which includes the original cost plus the ongoing cost.”

Perform a life-cycle cost analysis for the technology’s life span. A life-cycle analysis considers not only the purchase price but ongoing costs such as consumables and labor.

Tip 8: The interface menace

There’s a trend for medical technology to “merge” with information technology—“everything wants to be connected to everything else,” Montagnolo says. That means your technology acquisition committee needs to be knowledgeable about information technology as well as the medical aspects.

“One of the biggest areas where you can lose money is in creating interfaces,” he says. “When you hear a company say, ‘Oh sure, we can connect to that,’ find out where else they have done the exact
Tip 9: Implementation by design

“We race to make decisions about information technology. We want to ram it through as soon as possible,” Montagnolo notes. But poorly planned and implemented software leads to unfulfilled expectations and productivity drains.

One large hospital had to toss out its homegrown computerized physician order entry system after physicians refused to use it. The cost: $34 million to $100 million.

“If at all possible, pilot the software before you buy,” he suggests. “Vendors are usually supportive of this.”

Tip 10: Negotiate with knowledge

“Sales people are taught to be your friend because you like to buy from a friend. But your goal is different than theirs,” Montagnolo advises.

To negotiate with knowledge:

• Do your homework on the product you plan to purchase.

• Know the marketplace. Participate in benchmarking so you know the average price others are paying. Then try to beat the average.

• Stop talking. As you talk, the salesperson is watching for “buying signals,” and you can give away too much information about what you think of the product. Don’t give the impression that you favor one vendor over another. “If a salesperson asks, ‘Are we going to get the sale?’ rub your chin and say, ‘I don’t know. It’s really close.’ Repeat as necessary.

• Don’t make ridiculous requests, like asking for half price. You will lose credibility.

ECRI’s web site is www.ecri.org.

See the PowerPoint handouts from this presentation at www.ormanager.com.

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CDC urges testing of patients with tissue from BTS scandal

Patients who received tissue originating from Biomedical Tissue Services (BTS), Fort Lee, NJ, should be tested for HIV, HBV, HCV, and syphilis, the Centers for Disease Control and Prevention (CDC) recommended May 26.

Patients who have had tissue implants for more than 6 months should be tested. Those who have had implants for less than 6 months can be offered testing but should be retested 6 months after they have had the tissue, the CDC advises. Patients who test positive should have further testing to confirm the diagnosis.

BTS was shut down in January after the Food and Drug Administration found serious violations of donor screening and record-keeping requirements. BTS’s owner and 3 other men were indicted in February for allegedly operating a ring that stole tissue from corpses of persons who never gave consent for donation and were not screened.

Five tissue processors received tissue from BTS. About 25,000 BTS-recovered tissue products were distributed in all 50 states and abroad during June 2002 through October 2005, according to the CDC. The 5 processors recalled all products produced from BTS tissue.

The FDA and CDC continue to investigate reports of BTS tissue recipients who have been screened and tested positive for 1 of the 4 diseases. The agencies say it is difficult to determine if there is a link between the positive test results and the BTS tissue because of the problems with the BTS records.

The Associated Press reported April 28 that about 12 dozen lawsuits have been filed across the country, most seeking class action status for hundreds of people implanted with the recalled tissues.

The CDC says persons who received BTS tissue and test positive should be reported to health departments, the tissue distributor, FDA’s MedWatch program, or the CDC (800/893-0485).
Tips for enforcing patient escort policies

I’m glad I wore my sneakers today because I know I’ll be running after this lady, thought Susan Russell, BSN, RN, JD, CPAN, CAPA, as she reviewed the day’s procedure list.

Each time the patient, a female attorney, had a pain block procedure at Russell’s outpatient surgery center, she would make a run for it before discharge. The patient drove herself and never brought an escort.

“You think she’d know better, but sometimes you can’t protect people from themselves,” says Russell, clinical manager for perianesthesia services and vice president-elect of the Texas Association of PeriAnesthesia Nurses.

Russell compares patients who drive after being given narcotics or sedatives to people who drive under the influence of alcohol.

“Letting patients who have been given a mind-altering drug drive without an escort is like handing them a bottle of Scotch and telling them to get behind the wheel,” Russell says.

As the number of procedures performed at ambulatory surgery centers (ASCs) increases, so do concerns about patient safety and the ASC’s liability when patients do not bring escorts to accompany them and care for them at home following procedures.

“Many patients don’t take the issue seriously, but we have to,” says Jennette Driskill, RN, CASC, of the Pacific Endo-

Surgical Center in Torrance, Calif.

“The best approach is always to consider patient safety.”

Role of the patient escort

Why are patient escorts important to patient safety?

Anesthesiologist Francis Chung, MD, lead author of a recent article on patient escorts (Can J Anesth 2005;52:10:1022-1026), says professional medical and nursing societies recommend that ambulatory surgery patients have a responsible adult to accompany them home and stay with them overnight because patients have significant psychomotor and cognitive impairment after anesthesia or sedation.

“Escorts can ensure that the patient arrives home safely and can assist the patient with minor postoperative symptoms, such as pain, nausea and vomiting.” Dr Chung says. “In an emergency, they can obtain suitable medical help for the patient.”

Dr Chung’s research, which studied ambulatory surgery patients at Toronto Western Hospital in Toronto, Ontario, Canada, showed escorts are absent in 2 out of every 1,000 procedures, despite physician office and surgery center instructions that an escort is required for ambulatory surgery. The study reported that the number of patients who say they have an escort but the escort does not show up is higher than the number of patients who say they do not have an escort.

“They lie,” Russell says. “They say someone is coming, and no one shows up, or they have someone drive them around the corner to their car, then drive themselves home.”

The Toronto study also showed 28% of patients who go home without an escort also do not have a responsible adult stay with them overnight.

Because the study took place at one large tertiary facility, Chung recommends a larger multicenter study to further clarify health implications of patients who do not have escorts.

Risk and malpractice issues

“Our health department told us the fastest way to get our center shut down is to let patients go home without an escort,” Driskill says.

Continued on page 26
Requirements for patient discharge

Joint Commission on Accreditation of Healthcare Organizations
www.jcaho.org
• Patients who have received sedation or anesthesia are discharged in the company of a designated, responsible adult.
• The transfer or discharge of a patient is based on a patient’s assessed needs and destination site’s capabilities.
• The organization arranges for or helps the family arrange for services to meet the patient’s needs after discharge.
• The organization communicates appropriate information to other service providers.

Accreditation Association for Ambulatory Health Care
www.aaahc.org
Patients who have received moderate sedation/analgesia, deep sedation/analgesia, regional anesthesia, or general anesthesia are discharged in the company of a responsible adult.

American Society of PeriAnesthesia Nurses
www.aspan.org

Standards of PeriAnesthesia Nursing Practice, 2004 edition
Criteria for discharge assessment and management include in part recommendations to:
• verify arrangements for safe transportation home
• reinforce discharge planning with patient and family/accompanying responsible adult as appropriate
• provide written discharge instructions
• verify arrangements for safe discharge home.

American Society of Anesthesiologists
www.asahq.org
Look under Clinical Information, then Standards, Guidelines, and Statements. Guidelines for Ambulatory Anesthesia and Surgery (2003), recommend in part:
• Patients who receive other than unsupplemented local anesthesia must be discharged with a responsible adult. [Patient care should include] written postoperative and follow-up care instructions.

No escort, no surgery

The patient escort policy at Harmony Ambulatory Surgery Center in Fort Collins, Colo, is stringent—no escort, no surgery. If patients arrive without a responsible adult escort, the receptionist immediately notifies an RN. The RN informs patients they will not have their procedure that day if an escort does not be discharged with a responsible adult.

Indeed, ASCs increase liability and malpractice risks when they discharge patients without an escort, because patients may injure themselves or others while groggy or they may not be able to get help for postsurgical complications, says Sylvia Brown, RN, JD, vice president, risk management, for Premier Insurance Management Services, and editor of the clinical risk management volume of Risk Management Handbook for Health Care Organizations, 5th ed (American Society for Healthcare Risk Management, 2006).

State regulatory bodies and accreditation organizations usually require patients who receive anesthesia, other than locally administered anesthetics, to be discharged with a responsible adult. ASCs can reduce their liability and malpractice risk by taking actions that demonstrate they acted in the same prudent and reasonable manner that other reasonable ASCs would act in the same situation.

Being prudent and reasonable
Brown says “prudent and reasonable” actions in the case of patient escorts means:
• Educating patients when surgery is first discussed that they are required to have an escort upon discharge. This education begins in physician’s office and website and should be reinforced by the scheduler. The scheduler should document on a form, which becomes part of the medical record, all information shared with the patient.
• ASC staff is aware of and follows applicable state regulations and accreditation standards (sidebar). “If violations of regulations and standards are evidence of unreasonable practice, and if such unreasonable practice harms the patient, the staff may be liable for malpractice,” Brown says. “You can be more stringent than the rules, but you should not be less stringent.”
• The center has a written policy regarding escorts. The policy should spell out how the center has addressed the elements required in statutes and professional regulations.
• Staff acts reasonably to address unforeseen situations in which the patient is not present. Reasonable practice includes attempts to call other persons named by the patient or contacting a patient escort service, if available.
• Staff never drives the patient home. “This exposure is not usually covered by the staff member’s auto insurer,” Brown says. “If there is a medical complication, the staff member will be hard put to manage it on the highway. The fact that a staff member is present also may imply that the discharge was clinically inappropriate.”
• All observations and interventions by the staff on the patient’s behalf are documented objectively and thoroughly. “This information is important to subsequent caregivers and is invaluable if the center has to defend itself in litigation,” Brown says. “Your best approach is always to consider the issue from the perspective of patient safety.”
arrive promptly. Harmony cancels the procedure if the escort does not arrive.

“It’s easier for everyone to stick to our rule when it’s black and white,” says the clinical director, Cassie Seiler, RN. “It was a difficult transition at first for a few of the physicians, but their office staff makes sure their patients come with an escort. Rarely do we have patients show up without an escort at our center.”

The process to ensure that patients bring escorts begins at the surgeon’s office. Seiler says. The surgeon’s nurse and/or scheduler should instruct patients that escorts are required, and this instruction should be repeated throughout the preoperative process. Some centers get the name and phone number of the escort when surgery is scheduled.

**How to stop patients leaving alone**

Additional strategies for achieving patient compliance with escort requirements:

- Inform patients that their insurance may not pay for the procedure if they leave against medical advice (AMA).
- Convince patients they are responsible for others’ safety, not just their own. Explain the potential harm to innocent people if the patient drives under the influence of sedation or anesthesia. “We pull out all the guilt spells out the center’s liability and the responsibility of the physicians, but their office staff makes sure their patients come with an escort. Rarely do we have patients show up without an escort at our center.”

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If possible, switch to local or no anesthesia for minor procedures, such as urology and GI, Driskill recommends.
- Recommend patients hire an agency sitter, such as a certified nursing assistant, to accompany and care for them 24 hours postoperatively.
- Use a patient escort service. Medical transport services are becoming more common, especially in large metropolitan areas. But Brown cautions that patients must know the drivers are not employees of the center.

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“In many jurisdictions, a court will imply an employment relationship—and liability—if the patient perceived that the service representatives were employed by the ASC,” Brown says. “Carefully evaluate a medical escort service and work with a health care attorney to develop a contractual relationship that spells out the center’s liability and the service’s responsibilities.’’

Most ASCs do not use taxicabs because the driver is not considered “a responsible adult.” Seiler knows of a young woman who was molested after outpatient surgery by a taxicab driver while she was still sedated.

Even if patients get home safely in a taxicab, the issue of a responsible adult to care for them at home remains,” Seiler says.

Driskill says her center uses taxicabs in extreme circumstances when patients are dishonest about having an arranged ride and plan to go AMA by driving.

“Our compromise is that we pay for the taxi if they wait until they are fully recovered from sedation or anesthesia,” Driskill says.

**When all else fails**

Despite the danger to patients and the community, ASCs cannot keep sedated patients against their will, which is considered false imprisonment.

“Bottom line, it may be better to look at a false imprisonment allegation than the exposure that will be associated with a 6-car pile up,” Brown says.

If patients insist on leaving without an escort, ASC managers recommend:

- Calling the patient’s home to ensure the patient arrived home safely. Try to reach someone else in the home who can assist with postoperative care.
- Contacting the police and warning them of a potential driver under the influence.

“We are responsible and liable for patients at the point of discharge,” says Lee Anne Blackwell, RN, BSN, EMBA, CNOR, director, clinical resources, ambulatory surgery, HealthSouth Corp. “We can’t control what patients do after they leave the surgery center, but as managers, we need to document that we have done everything we can to make sure someone is there to continue caring for them postdischarge until they can care for themselves.”

—Leslie Flowers

Leslie Flowers is a freelance writer in Indianapolis.
Being prepared for emergency transfers

**Patient transfer 1:** During colonoscopy, the colon was perforated. Patient was given Cipro IV and became hypotensive. Anesthesiologist accompanied patient in ambulance and then to the OR.

**Patient transfer 2:** Postprocedure patient received in PACU in respiratory distress, pulse ox 85%-90% on room air. O2 supplemented with nonrebreather mask. Anesthesia and surgeon agreed to ACLS transfer via local medic unit.

**Patient transfer 3:** Following removal of hardware, bleeding continued. Dorsalis pedis artery was lacerated. Vascular surgeon called. Artery repaired. Patient transferred to hospital.

These are excerpts of reports submitted to the Pennsylvania Patient Safety Reporting System of patients transferred unexpectedly from ambulatory surgery centers (ASCs) to hospitals in Pennsylvania. Spotting a trend in unanticipated emergency care at ASCs, a state agency looked into the issue.

The agency, the Pennsylvania Patient Safety Authority (PSA), routinely collects reports of adverse events and near misses in the state’s health care facilities. Of 1,960 reports by ambulatory surgery facilities from June 2004 to July 2005, 35% required unanticipated patient care or patient transfer to another provider.

The PSA reviewed a random sample of 100 ASC adverse event reports. The results: 35 cases involved unanticipated care. Of these:

- 19 (54%) were postoperative transfers that required immediate surgery, follow-up care, or observation.
- 11 (31%) involved preoperative procedure cancellations, nearly all because of cardiac-related symptoms. In each case, the patient was transferred or referred to another facility for follow-up care and usually was taken by ambulance to a hospital emergency department.
- 5 (14%) were categorized as intraoperative changes in the patient’s condition that necessitated aborting the procedure. Perforations were the most frequently reported cause for urgent transfer to the hospital, followed by uncontrolled bleeding.

**Expecting the unexpected**

The substantial increase in procedures at ambulatory surgical facilities means it is critical for clinical staff to anticipate and prepare for emergency care and transfers, notes the article, “Expecting the unexpected: Ambulatory surgical facilities and unanticipated care” (Pennsylvania Patient Safety Reporting System. Patient Safety Advisory. 2005;2:6-8.)

“Our goal is to review events and share lessons learned so we can prevent future adverse events,” says Alan B.K. Rabinowitz, administrator of the PSA, a nonregulatory agency.

**Transfer risk predictors**

A literature review by the PSA showed these conditions most often lead to hospital admission or procedure cancellation for ambulatory surgery patients:

- hospitalization within the previous 6 months, with a 2-fold increased risk associated with multiple prior inpatient hospital admissions
- age of 85 years and older, with a 2-fold increased risk in the 65- to 69-year-old cohort
- peripheral vascular disease
- operating room time greater than 1 hour
- malignancy
- positive HIV status
- heart disease

- requirement for general anesthesia.
- For patients with these risk factors, it may be best to reschedule the procedure at a hospital, the PSA suggests.
- “Examining the patient’s history of recent hospitalization and reviewing identified risk factors may provide insight into the potential for transfer or admission postprocedure as well as the likelihood of case cancellation,” the report notes. “Though everyone wants to avoid a cancellation, it is frequently better to interrupt the surgical schedule and inconvenience the patient than to risk an emergent situation.”

**Preventive steps**

To reduce emergency transfers and adverse events, the PSA also recommends that ASCs examine these areas for risk analysis and quality improvement:

- **Patient selection.** During preoperative assessments, ASCs should evaluate preoperative medical needs, the expected postoperative care, and the level of home support to determine
the most appropriate procedure location.

- **Emergency preparedness.** Regulatory and accrediting bodies address the issue of ASC preparedness for emergencies. The Pennsylvania PSA recommends that emergency preparedness procedures include:
  - designating which practitioner from the ASC escorts the patient during transfer
  - determining when to activate the 911 system
  - deciding where the patient will go
  - ensuring that staff prepared in advanced cardiac life support (ACLS) and/or pediatric advanced life support (PALS), depending on patient age, is available at all times
  - ongoing staff education about how and when to activate the emergency plan, including conducting routine drills.

- **Transfer readiness.** ASCs should review their state health department requirements for patient transfer readiness. Rabinowitz says Pennsylvania requires an ASC to have:
  - a written transfer agreement with a hospital that has emergency and surgical services and/or where the ASC’s surgeons have admitting privileges
  - a written agreement with an ambulance service staffed by certified emergency medical technicians for the safe transfer of patients to the hospital.

—Leslie Flowers

Leslie Flowers is a freelance writer in Indianapolis.

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**Medicare to pay for some new technology lenses**

Medicare will pay an additional $50 to ambulatory surgery centers for new technology intraocular lenses (NTIOL) recognized as belonging to Category 3 (reduced spherical aberration), the Centers for Medicare and Medicaid Services (CMS) said May 30. Effective dates for coverage are from Feb 27, 2006, through Feb 26, 2011. The lenses included are:

- AMO: Tecnis Z9000, Z9001, ZA9003
- Alcon: AcrySof IQ SN60WF.

Information is at www.cms.hhs.gov/CoverageGenInfo/09_NTIOLs.asp#TopOfPage

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Cleaning campaign targets VRE transmission

Enforcing routine environmental cleaning was associated with less surface contamination with vancomycin-resistant enterococci (VRE), cleaner health care worker hands, and a significant reduction in VRE cross-transmission in an ICU, researchers at Chicago's Rush University Medical Center report.

Improvements occurred even though VRE-colonized patients continued to be admitted, and health care workers complied with proper hand hygiene only moderately.

Strategies the researchers tested:
• held in-services for housekeepers about why cleaning is important—emphasizing thorough cleaning of surfaces likely to be touched by patients or workers
• increased monitoring of housekeeper performance
• recruited respiratory therapists to clean ventilator control panels daily
• educated nurses and other ICU staff on VRE and how they could assist housekeepers by clearing surfaces that need cleaning
• conducted a hand hygiene campaign, including:
  — mounting alcohol gel dispensers in common areas, patient rooms, and at every room entrance
  — educating ICU staff on hand cleanliness
  — giving out motivational brochures, buttons, posters, and games.

The researchers say their study provides further support for the importance of an environmental reservoir for VRE and of environmental degerming to prevent cross-transmission.

www.journals.uchicago.edu/CID/

Big cost variations at top medical centers

Chances that patients with chronic disease will be hospitalized or admitted to the ICU during their last 6 months of life are as much as 5 times higher at some major academic medical centers than others, say investigators from Dartmouth Medical School, Hanover, NH.

For example, a patient with the same illness would be in the hospital for 32 days at New York University Medical Center and 11 days at the University of Colorado in Denver.

The investigators say there is no evidence that high amounts and intensity of care lead to better outcomes. They examined records of Medicare patients with heart attacks, hip fractures, and colon cancer.

—www.dartmouthatlas.org/
Please see the ad for INTEGRATED MEDICAL SYSTEMS in the OR Manager print version.
Blood transfusion risk higher than expected

Blood transfusions may be more of a risk to patients’ recovery than previously suspected, according to 2 studies in the June Critical Care Medicine. One study shows red blood cell transfusion following coronary artery bypass graft surgery is the single largest factor associated with increased risk of postsurgical complications and should be avoided if possible, say researchers from the Cleveland Clinic Foundation.

Transfusions are associated with postoperative complications including infection, pneumonia, kidney dysfunction, diminished lung function, multiple organ failure, increased length of stay, and generally increased short- and long-term mortality.

The second study found patients with major burns who have transfusions have a higher risk of death and infections. The authors suggest that use of blood products in the treatment of major burns be reserved for patients with a demonstrated physiologic need.

—http://ccmjournal.com/

California lags behind nation in RNs

A study shows California lags behind the rest of the nation in the ratio of filled RN positions per 100,000 people, according to the California Institute for Nursing and Health Care. The report found the California average RN-filled jobs was 622 per 100,000, while the national average was 787 RN-filled jobs per 100,000.

—www.cinhc.org

Plan to recruit foreign nurses may hurt poor nations

With a growing nursing shortage, the US Senate is considering removing the limit on foreign nurses entering the country, according to the May 24 New York Times. The exodus of nurses from poor to rich countries has strained health systems in the developing world, already facing severe shortages of their own, the newspaper said. Removing the immigration cap would particularly hit the Philippines, which sends more nurses to the US than any other country.

The American Nurses Association is opposed to the provision, saying it would lead to a flood of nurse immigrants and would damage both the US work force and home countries of immigrants.

—www.nytimes.com

What would patients pay to prevent pain, nausea?

Patients are willing to pay more to prevent postoperative pain than postoperative nausea and vomiting (PONV)—$35 for a better analgesic versus $17 for a better antiemetic.

Researchers from The Netherlands, who queried patients on willingness to pay both before and after surgery, expected patients who had PONV or pain to increase their bid after surgery. But the bids were virtually unchanged.

The median $17 bid to relieve nausea and vomiting before surgery was the same 2 weeks after surgery—with 47% of respondents willing to pay the same amount, 32% decreasing their bid, and 21% increasing their bid.

For analgesics, the median $35 bid before surgery also stayed the same—with 48% willing to pay the same amount to prevent pain, 27% decreased their bid, and 25% increased their bid.

Only income determined whether patients would change their willingness to pay for better PONV relief after surgery. Changes in willingness to pay for pain relief were not income dependent but were evoked by pain severity.

The authors say the findings may be useful in cost-benefit analyses of strategies for avoiding PONV and postoperative pain. When costs of a strategy do not exceed the values that patients attach to its effects, an OR might decide to implement the strategy.