Strategies that help to smooth patients’ preop preparation

A missing consent form. A patient who arrives on the morning of surgery needing a cardiac work-up. A history and physical absent from the chart. A lab result that isn’t available. Difficulty coordinating the preanesthesia evaluation.

They’re all wrinkles that prevent the preoperative process from flowing smoothly.

The preop process is demanding, with many pieces and players that must come together to prepare patients for a safe and timely surgery.

Missing information causes ripples that spread and may disrupt the OR schedule for the rest of the day.

In this issue, 3 organizations share what’s worked for them in streamlining preoperative preparation. They share how they work with physician offices, coordinate anesthesia and nursing assessments, manage the Joint Commission-required update note, try new ideas like automated phone calls, and monitor their results. Also, a new study from a major medical center examines how many patients had unresolved medical issues that if not identified could cause delays or cancellations on the day of surgery.

Tissue-tracking requirements: Putting all the pieces together

If you receive a recall letter from a tissue supplier, how quickly could you identify which patients received that tissue? If one of your surgeons reports an infection in a patient who received a tissue graft, how will you follow up?

Tracking of tissue is a patient safety issue—consider the well-publicized scandals and recalls of the past year or two. It’s also a requirement of the Joint Commission. The standard is intricate, with many pieces to address.

OR Manager interviewed 5 managers about their tracking systems. One described a patient tracer on tissue tracking that occurred during a recent Joint Commission survey (sidebar, p 17).

The biggest challenges, say managers:

• complying with the requirement to verify that the tissue temperature is controlled on route from the supplier
• making sure all tissue is included in the tracking process—a large OR can have 100 different tissue products
• managing the many pieces of information so they are retrievable from either end of the process—condition of tissue on arrival, storage temperature, alarms, patient documentation, and monitoring for adverse events
• educating the staff and monitoring compliance with the requirements.

Verifying tissue condition
For tissue received, the Joint Commission
Continued on page 15
Please see the ad for
MEGADYNE
in the OR Manager print version.
Lean thinking
How QI methods developed by Toyota can help ORs improve.

Interim management
Is interim management the right career path for you? Hear the pros and cons from veterans.

Editorial

A 37-year-old father of 4 is admitted to the hospital with acute pancreatitis. On the third day, he develops hypotension and metabolic acidosis related to the pancreatitis and needs vasopressor support and mechanical ventilation.

On day 6, he develops a fever and recurrent hypotension. Blood cultures come back positive for Methicillin-resistant Staphylococcus aureus. The same organism grows from his femoral catheter placed 4 days earlier.

He develops multiple complications from the catheter-related sepsis. He requires multiple procedures to drain abdominal abscesses and develops renal failure requiring dialysis. He needs a tracheotomy for ventilation. Finally, after 86 days in the hospital, he is transferred to a long-term care facility for further rehabilitation.

This devastating case was described by Richard P. Shannon, MD, in testimony before Congress last year.

Dr Shannon is chairman of medicine at Allegheny General Hospital in Pittsburgh. You may have seen him in the PBS series, Remaking American Medicine, last fall.

He’s one of a growing number of experts who say health care needs to shift its thinking about hospital infections.

Collateral damage
The conventional wisdom is that some hospital-associated infections are inevitable—the “collateral damage” of complex care. There’s also the belief that hospitals might actually be making money on these cases.

But research is starting to dispel these beliefs.

In a recent article, Dr Shannon and others showed that this case and 4 similar ones take a heavy financial as well as human toll. The hospital’s costs for that 37-year-old man swelled to $241,844—$200,031, losing $41,813.

The work of Dr Shannon and others is giving us a clearer picture of the cost and consequences of hospital infections.

Outcomes of the Allegheny project show that diligent effort on quality improvement really does make a difference.

—Pat Patterson

Follow-up
A Wisconsin nurse who was criminally charged in November after a medication error led to the death of a 16-year-old in labor was sentenced to 3 years of probation for 2 misdemeanors and barred from critical care nursing during that time. The state Board of Nursing barred her from critical care nursing during that time. The state Board of Nursing suspended her license for 9 months and ordered her not to work more than 12 hours in a 24-hour period or more than 60 hours per week.

The nurse, Julie Thao, accidentally administered epidural bupivacaine IV instead of penicillin.

The case was the subject of the editorial in the January OR Manager.
Please see the ad for
SKYTRON
in the OR Manager print version.
Are hospital infections inevitable?

What should our surgical infection rate be? The conventional way to answer is to benchmark your hospital’s rates with data from the Centers for Disease Control and Prevention (CDC).

But the new answer is likely to be—zero. It’s been thought that a certain number of hospital-acquired infections are to be expected. Many patients have conditions that make them vulnerable to infection, including diabetes, obesity, compromised immune systems, and others.

But that thinking is changing. “I think people are shifting away from the belief that these infections are to be expected,” researcher Christopher S. Hollenbeak, PhD, told OR Manager.

An economist at Penn State College of Medicine, Hershey, Pa, Hollenbeak has studied risks and costs of surgical infections for 8 years. His interest is in refining models that can be used for public reporting of infections, a growing movement.

Role of hospital practices

His studies and others are beginning to sort out the role of patient susceptibility and hospital practices in surgical site infections (SSI).

His most recent study, published in a supplement to the American Journal of Medical Quality, used publicly reported surgical infection data from Pennsylvania for 3 surgical procedures—circulatory, orthopedic, and neurological—to test a statistical model comparing the role of patient and hospital factors.

The overall infection rates were 0.37% for circulatory conditions, 0.72% for neuro, and 0.42% for orthopedics.

Both patient characteristics and hospital factors were significant in determining SSI risk for these procedures, but patient characteristics did not provide a good predictive model, Hollenbeak notes. Adding hospital effects improved prediction by 23% to 33%.

In other words, patients having one of these procedures were significantly more likely to develop an SSI at some hospitals than others.

“We come away with the impression that patient characteristics do matter. But it appears that hospital variability is more important,” he says.

Getting to zero infections may not be obtainable. Still, “it seems like any hospital that goes into an effort to reduce infections succeeds. So it seems there is a lot more that can be done to bring the infection rate down,” Hollenbeak notes.

High cost of hospital infection

Two other articles in the same issue also looked at hospital infection risk.

A detailed analysis of the cost of central line-associated bloodstream infections by Richard P. Shannon, MD, of Allegheny General Hospital in Pittsburgh found big financial losses from these cases. (See editorial.)

In another study, the authors examined differences in mortality, length of stay, and hospital charges for patients with a hospital-acquired infection and those without. They found the differences in these measures couldn’t be explained by the disease-specific severity of illness. Patients who acquired infections had mortality rates up to 5 times higher and stays up to 3 weeks longer than patients with the same diseases who did not acquire infections.

References


Please see the ad for CARDINAL HEALTH in the OR Manager print version.
OR construction track at conference

If your OR is like many others, you’re involved in a building project or are about to be. In all, 64% of managers responding to the 2006 OR Manager Salary/Career Survey say their facility is adding or planning to add new operating rooms. And 38% are renovating.

OR managers who join a project team need to get up to speed quickly.

A track at the OR Business Management Conference May 9 to 11 in Savannah, Ga, offers information and tools for managers whose facilities are embarking on a construction project, from planning through to moving day.

Attendees can choose from an all-day seminar on Wednesday plus 5 breakout sessions on Thursday and Friday.

All-day seminar

Why, What, and Who of Planning and Constructing New OR Suites

A team of architects plus a technology and financial planner will cover project planning, including trends affecting OR and related spaces; the impact of technology; business and financial factors; the role of the design team; and management tools, including use of visualization and mock ORs.

Attendees will participate in a discussion of issues such as whether ORs should be general or service specific and how to design for communication needs.

Breakout sessions

Building Green: Sustainability and the OR Suite

What does it take to build a “green” facility and to practice in an environmentally responsible manner?

The speakers will talk about the pioneering Boulder Community Foothills Hospital, Boulder, Colo, the first hospital in the US to earn the prestigious LEED certification for leadership in energy and environmental design. They’ll describe examples of green design and construction as well as everyday practices that contribute to a green and sustainable environment.

Planning for the Move to a New Facility

It’s Friday, and the new ORs are finally finished. Surgery begins in the new suite on Monday. Will you be ready?

Hear from a veteran OR director who’s participated in multiple building projects about how to plan and carry out a smooth transition to the new suite. She’ll discuss:
- coordination for new equipment
- orientation of staff and physicians
- communication with supporting departments
- stocking of supplies and pharmaceuticals.

Infection Control Practices During Construction

How do you manage patient safety and infection control when planning and remodeling ORs? The speaker, who has advised the Association for Professionals in Infection Control and Epidemiology and the Centers for Disease Control and Prevention, will cover regulatory requirements and professional recommendations for infection control during construction. She’ll also discuss issues such as OR surface materials, air flow, humidity, and air changes.

A simultaneous quintuple kidney transplant took place at Baltimore’s Johns Hopkins Hospital on Nov 14, 2006. The historic event was made possible by a kidney swap involving 4 transplant candidates who each had a relative willing to donate a kidney and a fifth candidate who matched a donor who had offered a kidney to no particular individual for altruistic reasons.

Because of tissue or blood incompatibility, none of the relatives of the 4 patients could donate to the family member who needed a kidney, but each was a fit for one of the other patients.

The logistics for 5 ORs, instruments, and staffing for this marathon of operations required planning by the OR nursing coordinator, nurse manager, and transplant team staff nurses; ICU and inpatient unit nurse managers as well as the transplant coordinators, anesthesiologists, and transplant surgeons—all accomplished in 2 weeks. The group had only 2 meetings—at 1 week before and 2 days before the transplants.

It began with a telephone call

“It all started 2 weeks before the operations were performed, when we got a call from Hopkins’s transplant center director, Robert Montgomery, MD, asking us to start looking for a day when we could work out 5 empty ORs and staffing to accommodate 5 simultaneous transplants,” Brenda Nack, RN, MSN, CNOR, nursing coordinator for the general OR, told OR Manager.

Making 5 rooms available required other services to give up their block time, noted Patti Wieczorek, RN, MSN, CNOR, nurse manager of the cardiac, vascular, and transplant surgery services.

Beds were also needed in the ICU, postanesthesia care unit (PACU), and patient unit.

OR nurse planning

In planning for staffing, Wieczorek said, “We looked at the staff scheduled for that day who had the expertise for doing transplants. Then we looked at those who were off and asked them to come in and work overtime.” Only a couple of nurses had to come in, and they were willing to do so. Some of the evening staff were asked to come in early.

Two nurses were assigned to each OR, with relief staff and a charge nurse to check on the rooms to make sure they were running smoothly.

“We staffed a little higher than we normally would for transplants because of the circumstances and because we wanted to make sure everything was coordinated,” noted Wieczorek.

After the first meeting, the OR staff pulled the preference sheets for all of the surgeons, determined which instruments and equipment would be needed for each room, and made a list of anything that might have to be rented, such as slush machines for the donor kidneys.

The 5 transplant surgeons who perform kidney transplants participated, plus a urologic surgeon who operated on one of the donors, and fellows and residents.

“The staff really went above and beyond what they were asked to do,” said Wieczorek. “They had the case carts picked the week before the surgeries. The day before, they went through the carts again to make sure everything was there.”

The night staff made sure all supplies and equipment were distributed to the right areas. The transplant staff came in a half hour early on the morning of the procedures to set up the rooms and check equipment and supplies.

Pairs unaware

None of the donors, who came from as far away as Florida and Maine, knew each other or met before the operations.

Preoperatively, the donors and recipients were separated as much as possible, which was difficult because they were all coming into the same area at the same time, noted Katie Stegner, RN, BSN, a member of the vascular transplant team.

The staff was fairly successful in separating the patients, who were not aware of who else was involved. The OR ran a full schedule on the day of the transplants, so the areas were full of other patients also.

Donors and recipients met at the press conference a week after the transplants, only because they all wanted to and gave permission.

“The main reason we keep the patients and their families separated is because we don’t want anyone to feel pressure,” Nack noted. “It is the donors’ decision to go through with the surgery, and they can pull out at any time. That is also why we started all of the surgeries at the same time, because up until the incision is made, they can pull out.”

The day of surgery

All 5 donors had their kidneys removed laparoscopically, with their cases starting at 7:45 am. Four of the donated kidneys stayed in the room where they were removed, and the recipients’ surgeries were performed in those same ORs, with both operations performed by the same surgeon.

The fifth donor kidney was removed by the urologic surgeon and immediately taken to a sixth OR set up for the fifth recipient. That transplant surgeon was also performing a liver transplant that day and wanted to start the kidney transplant as soon as possible.

All donor operations ended between 11 am and 12 noon. As soon as the donors left the OR, the room was turned over by a turnover team, while the scrub and circulating nurses went to eat.

As soon as an OR was turned over, the recipient was brought in. All starts for the recipient cases were staggered as the donor cases finished, and all finished between 5:30 pm and 6 pm.

Staffing in the rooms

RNIs circulated for all the cases and scrubbed for most, with 2 surgical technologists (STIs) also scrubbing.

Stegner, who scrubbed and circulated in one of the rooms, said everything went smoothly.

“All of the nursing and anesthesia transplant staff and surgeons worked well together, as they do every transplant
day,” Stegner noted. “It was pretty much a routine day except that we did 5 transplants at the same time.”

She said she and her colleagues would have no problem doing a quintuple transplant again.

“The main thing is to have a good support system, good team work, and good communication,” Stegner said.

All of the donor patients were healthy, did well in surgery, and were discharged within 2 days. The recipients, who differed in preoperative severity of illness, all did well intraoperatively. Some were discharged in a week, with others staying longer.

A plea to clarify transplant law

Dr Montgomery has advocated the pairings system that allowed the 5-way kidney swap since he led the first triple-swap transplant at Johns Hopkins in 2003.

He noted in the press conference that as of August 2006, less than 12,000 of the 72,500 patients waiting for transplants had received a kidney, with only about 4,400 involving live donors.

He made a plea to Congress to clarify the organ donor and transplant law so a national matching program to facilitate kidney-paired donation (KPD) could be organized by the United Network for Organ Sharing (UNOS).

Under current federal law, organs cannot be donated with the expectation that the donor will receive consideration or payment.

In KPD transplants, donors donate with the expectation that a specific person will then receive a compatible organ from a different donor. There is concern that this expectation could be considered a form of compensation for donation and run afoul of the law.

Clarifying the law would encourage broader use of KPD and save thousands more lives of critically ill children and adults, Dr Montgomery said. ♦

—Judith M. Mathias, RN, MA

Five-way domino transplant

Parent: Child

Married

Married

Married

Red arrows show how unrelated donors were matched in 5-way kidney transplant at Johns Hopkins Hospital.
What works to smooth preop process?

Three organizations describe steps they've taken to improve their preoperative processes.

Close ties with MD offices

Piedmont Hospital
Atlanta
500 beds, 21 inpatient and 8 outpatient ORs
24,000 cases per year

A close relationship with physicians' offices keeps the preop process on track at this urban facility. The relationships were forged 15 years ago during a performance improvement project and have been maintained.

“When I pick up the phone and call a doctor’s office, I pretty much know who to direct my information to, and they know me. It’s very smooth,” says Kim Swanson, RN, CPAN, director of peri-anesthesia services.

A manual for physicians’ offices is available through the hospital’s intranet. The manual covers how to schedule a case; information the hospital needs; responsibilities of the office, hospital, and anesthesiology department; and how to handle patients with special needs, such as discharge planning, language services, and transportation.

The 9-room preadmission testing area reports to surgical services and is staffed primarily by RNs with a nurse practitioner, unit secretary, 2 charge nurses who share a position, and 2 chart-review nurses (1 RN and 1 LPN). The unit manages about 16,000 to 17,000 visits per year.

“We feel having the unit staffed by RNs is key to evaluating the patient’s needs before surgery,” says Nancy Flanagan, RN, CNOR, performance improvement coordinator for surgical services. Nurses do their own blood draws and EKGS while assessing the patient.

Preamesthesia assessments are usually conducted on the morning of surgery except for high-risk patients. Patients fill out a preanesthesia assessment during their preadmission visit, which is reviewed by a nurse. Patients with potential anesthesia issues are referred to the nurse practitioner, who acts as a central point for surgeons, anesthesiologists, primary care physicians, and the nursing staff.

The unit has employed a nurse practitioner since the early 1990s. Originally, the position was provided by the anesthesiology department but is now a hospital position. (Anesthesia services are provided by a contracted group.)

“We felt it was essential to have an advanced practice nurse in this role, and the hospital supported it,” says Swanson.

Most patients are walk-ins to the preadmission area because most of the surgeons’ offices are on the hospital campus. About 60% are seen prior to the day of surgery, with phone assessments for those who are healthy or cannot come to the unit.

All charts are reviewed 72 hours and 24 hours before surgery. Documents are faxed to the hospital, with the original consent delivered by the patient or office staff. Office staff sign when they deliver forms.

The OR Committee strongly supports having the H&P and consent form on the chart before surgery.

“If these are not on the chart, the patient does not go back for surgery. There is no give on that,” Flanagan comments.

Update note for the Joint Commission

Piedmont recently changed its process for the Joint Commission’s requirement to have an update note on the patient’s chart at the time of admission.

The note is now provided by the anesthesiologist, who documents both the preanesthesia assessment and the update of the patient’s condition. The OR committee approved the change after reviewing the Joint Commission’s response to a frequently asked question (FAQ) on its website. The FAQ posted in February 2006 states, among other things: “In the situation where the patient is going to surgery within the first 24 hours of admission, the update to the patient’s condition and the preanesthesia assessment (PC.13.20) could be accomplished in a combined activity.”

The Joint Commission elaborated in a statement to OR Manager: “The anesthesia provider’s assessment of the patient on the day of surgery could be acceptable for the update to the patient’s condition if the anesthesiologist has privileges to perform the history and physical and updates, and the documentation includes information required to be addressed by the organized medical staff. The same documentation, if it includes the information required by the organized medical staff to be included in the preanesthesia assessment, could be used as the preanesthesia assessment.”

(The FAQ is at www.jointcommission.org. Look under Standards, Standards FAQs, Hospitals, Provision of Care, Assessment.)

Piedmont was surveyed by the Joint Commission in April 2006 and received no recommendations on the preop process. “They were complimentary of our admissions testing and preop workup process,” says Swanson. “They asked us about the update, we discussed it, and they agreed that it was fine.”

‘Lunch and learn’

The hospital hosts “lunch and learn” sessions for office staffs at least every 6 months.

“Working with the offices is an ongoing process,” says Swanson. There is turnover, and sometimes information isn’t passed along. “We feed them, give them a chance to ask questions, and provide any updates.”

To help ensure a good turnout, they mail invitations and phone offices they really want to attend, following up with e-mails and more phone calls.

Metrics for management

Piedmont’s managers monitor these metrics to keep the preop process on track:
• patient volume by hour and day of week to guide staffing
Continuum of care

- patient wait times, tracked daily and monthly, with a benchmark of 15 minutes between the time the patient registers and is called by a nurse
- chart completion.
  A screening tool is attached to each chart where nurses note any incomplete workups, missing paperwork, H&Ps and consents that did not arrive until the patient is in the holding area, and surgical delays and cancellations.
  The tools are reviewed for trends, which are shared with the preadmission staff, OR committee, and surgeon and anesthesiology peer review committees. There is follow-up with physicians’ offices when necessary. The staff also watches for new issues. For example, when automatic internal defibrillators were introduced, the staff learned these needed to be turned off before surgery, and education was provided.

What works?
What works at Piedmont:
- a manual for office staff available by intranet
- close coordination with physicians’ offices, with regular “lunch and learns”
- a preadmissions unit staffed primarily by RNs, with a nurse practitioner as a central point for information
- monitoring trends in chart completion and following up with offices
- strong support from the medical staff and OR Committee.

Community hospital fine tunes process

Sewickley Valley Hospital
Sewickley, Pa
191 beds, 8 ORs in hospital, 4 ORs in ambulatory surgery center
11,520 cases per year

A well-thought-out preadmissions packet and automated preop phone calls have helped a community hospital fine-tune its presurgical process. The process has been streamlined using Six Sigma and other quality improvement techniques.

Sewickley Valley Hospital performs about 900 procedures a month in its 8-OR main suite and 4-OR ambulatory surgery center.

The surgical cancellation rate is less than 1%, notes Vanessa Santucci, RN, BSN, nurse manager for outpatient surgery, the presurgical offices, GI lab, and medical treatment unit.

The process was organized several years ago by Marilyn Rudolph, RN, BSN, MBA, now vice president for performance improvement for VHA Pennsylvania and a faculty member for the Institute for Healthcare Improvement’s program, Improving Flow through Acute Care Settings.

Here’s how the process works:

**Preadmission packet**

Most information is collected by surgeons’ offices using a user-friendly preadmission packet developed by the hospital. Few patients are seen at the hospital before the day of surgery.

When the decision for surgery is made, the office begins completing the packet, which includes the surgical consent, registration form, health history questionnaire, surgical admission form with orders, and patient instructions. For the H&P, depending on the patient, the surgeon either completes a short form or dictates it to the hospital’s transcription line.

The packets are self-explanatory, so the hospital doesn’t need to orient office staffs. When the packet is updated, office staffs are invited to an early-morning meeting with the presurgical office to learn about the changes and offer feedback.

**Consensus on testing**

The anesthesiologists, who are a contracted group, have consensus guidelines for preoperative testing. They also agree on which responses on the health history will trigger a call to the patient or patient’s physician prior to surgery. The anesthesia group employs 2 nurse practitioners (NPs) who review flagged charts before surgery.

**Preadmission packets are user-friendly.**

**Presurgical office**

Preadmission packets are processed by the hospital’s presurgical office, which has separate areas for the hospital and ASC. Hospital packets are white, and the ASC’s are gray. The unit is staffed by 2 secretaries (1 full time and 1 part time) and 2 RNs (1 full time and 1 part time).

Preadmission packets are handled as follows:

- The secretaries begin work on the packets, sending registration forms to the admissions department and filing the rest of the packets by date of surgery. They add test results and other information as received. They have been instructed to flag charts meeting criteria for further review.
- The nurse practitioners review the flagged charts for anesthesia issues. They order more tests or consults if needed, consulting with an anesthesiologist as necessary.
- Two days or more before surgery, an RN phones only those patients having surgery at the hospital. She is able to contact about 15 to 17 patients daily of the approximately 44 scheduled. These are typically elderly patients and those having complex procedures such as total joint replacements or vascular surgery.
- Two days or more before surgery, secretaries from the outpatient surgery unit pick up the packets and begin assembling the charts. A worksheet on the front tracks information as it is received. They follow up on missing information.
- On the day before surgery, outpatient surgery RNs review the charts as they have time and complete the preop checklist.
- The master surgical schedule notes any information still missing in red.
- Preanesthesia and nursing assessments are conducted on the day of surgery.
- Surgeon compliance with the packets is generally good, Santucci says. A few surgeons don’t dictate the H&P until the night before surgery. The staff is aware of

Continued on page 12
Continuum of care

Agreements to improve

Agreements to improve the preop process at Kettering Medical Center:

Volunteer surgeons

Two volunteer surgeons agreed to:
• review their preference lists for accuracy, signing off on the lists and not changing them frequently
• review their instrument sets, eliminating unnecessary instruments
• monitor their preoperative orders, follow through on findings, and ensure all patients were cleared for surgery
• ensure the history and physical and surgical consent are completed before the day of surgery
• be present 20 minutes before the start of the case to see the patient, mark the surgical site, and allow RNs time to complete their interviews
• remain in the surgical department during their block time.

Preoperative units

• The preanesthesia clinic agreed to review patients’ charts 48 hours ahead of time, calling surgeons about any unfinished items.
• The preadmission staff agreed to —review the patient’s chart the evening before surgery and work with the surgical team to correct any missing elements —have the patient ready 30 minutes before the scheduled start of surgery.
• Anesthesia providers agreed to complete their assessment 15 to 30 minutes before the start of the case.

Operating rooms

• OR nurses and surgical technologists agreed to adjust their schedules to match the 2 surgeons’ block hours.
• OR RNs agreed to interview the patient 15 minutes before the start of the case.

Success has rippled through the department.

Continued from page 11

What works?

Sewickley Valley’s successful strategies:
• The preadmission packet helps ensure everything is in one place.
• Experienced secretaries in the presurgical office do a good job processing the packets.
• Automated phone calls give patients consistent information and save time.
• “Teamwork is what makes everything go so smoothly—everyone in all areas working together,” Santucci says.

Continued from page 11

Automated phone call

Automated phone calls communicate preop information to patients. Patients receive 3 calls, using software from TeleVox (www.televox.com). The scripted calls cover preop instructions, arrival time, and a follow-up after surgery telling the patient where to call with questions and concerns. The calls are attempted for a 4-hour period. During the call, patients can leave a detailed message with questions or concerns, and the staff contacts them.

The hospital receives a report on those reached, whether they answered in person or by machine. The staff contacts patients who were not reached to provide the information they need for surgery.

The system took some fine tuning, but Santucci says patients seem satisfied, and the hospital has been able to reduce FTEs. Though some physicians’ offices and patients have not been happy about use of an automated system, she says patient compliance is as good as with personal calls.

What would she still like to achieve? Her goal is to have charts completed 48 hours before a case.

“We’d also like to streamline the process further so the packets aren’t being touched so many times,” she says.

Surgeon-specific teams

Kettering Medical Center
Dayton, Ohio
450 beds, 21 main ORs
21,000 cases per year

Faced with dissatisfied surgeons and a disconnected process, Kettering piloted a new approach that created better teamwork among staff and physicians.

Before, patients would come to the preanesthesia clinic, but there were no agreements or accountability for reviewing their orders.

“There was not a review of the chart the day before surgery. So when a patient arrived on the day of surgery with a low potassium or EKG irregularities, they might have to delay or cancel the case,” says Judith Canfield, RN, MBA, MHA, who was interim director of surgical services during the project. Also, surgeons had a different team in their OR every day. Not all staff knew their routines, and cases didn’t always go smoothly.

The improvement process kicked off when the administrative director of perioperative services, Karen Gorby, RN, MBA, FACHE, worked with a focus group where surgeons voiced their concerns.

Two surgeons volunteered for a pilot project, a bariatric surgeon, Rita Anderson, MD, and a vascular surgeon, Jonathan Velasco, MD. Both surgeons had 90% on-time starts and high utilization of their block times. Managers thought improving the process for these surgeons would carry over to the rest of the department. The facilitators were Gorby, Canfield, and the team leader for general surgery services, Marianne Keaton, RN, BSN.

The pilot project

The facilitators met with all groups that affect the preop process: physicians’ office staffs, the preanesthesia clinic, preadmission unit, and OR as well as surgeons and anesthesiologists. (Anesthesia services are contracted with 1
group that serves several facilities.) They reached formal agreements with the 2 surgeons, the clinics, preanesthesia clinic, and the surgical admissions unit about the improvements to be made (sidebar, p 12).

The 2 surgeons set the tone. Steps taken to improve the process:

- Anesthesia providers couldn’t always cover the preanesthesia clinic because they cover multiple sites. But they agreed to complete their assessments 15 to 30 minutes before the start of the case.
- About 9 to 12 months into the pilot, the project team determined that the preanesthesia clinic was understaffed. The team planned to hire a nurse practitioner to conduct the preanesthesia assessments and activate surgeons’ orders. Indicators used to justify the hiring were the percentage of case cancellations on the day of surgery and H&P completion. (The NP was not hired during the pilot.)
- OR staff met with the 2 surgeons to fine tune their preference lists, instrument sets, and case carts so setups became routine, and cases ran more smoothly.
- Surgeon-specific OR teams were set up to work with these 2 surgeons consistently. These staff agreed to adjust their schedules to match these surgeons’ blocks. Surprisingly, this was easy. “The staff respects both surgeons and really enjoys working with them,” Keaton says.
- Reports were posted so the rest of the department could see results these 2 teams were achieving in turnover time and meeting the schedule.

**Pilot outcomes**

In the first 6 months, the 2 surgeon-specific teams:

- reduced turnover time from an average of 30 minutes to 17 to 18 minutes
- completed cases an average of 1 hour and 47 minutes earlier than before the project began.

“TThis gives them the chance to put in a case that day because they will have the extra time,” Keaton says, adding it hasn’t affected the nurses’ motivation.

**Ripple of success**

The teams’ success has rippled through the department. “Things seem to flow so much easier,” Keaton says. Before, it was difficult to get the lab work and so forth on the chart before surgery. Now more surgeons are achieving that.”

One reason may be that more surgeons want their own teams and are vying to be the next selected. Two more surgeons are currently involved. One uses many of the same team members Dr Anderson does because they operate on different days. The OR has enough 10- and 12-hour employees to handle the challenge of providing more surgeons with teams. Other specialties have adopted some strategies from the pilot, but not all will adopt the team model because of variations in surgeon practice, infrequency of some procedures, and other factors.

**What works?**

What has made the biggest difference so far?

**Literature on the preoperative process**

**Preop clinic decreases cancellations, unnecessary testing**

In the first year after a preoperative evaluation clinic was opened:

- day-of-surgery cancellations decreased by 88%  
- tests ordered decreased by 55% with a cost reduction of 59% with no OR cancellations, delays, or adverse events reported because of this change.


**Reducing preop risk factors could save costs**

Preoperative risk factors and surgical complexity are effective predictors of hospital costs. Preoperative efforts to reduce risk could lead to significant cost savings.


**Fewer cases cancelled with preop evaluation**

In a study at the University of Chicago, 8.4% of cases evaluated in an anesthesiologist-directed preop clinic were cancelled compared with 13% of cases involving patients without a clinic visit.


**Lost revenue from cancelled cases**

Lost revenue from each cancelled case averages $1,430 to $1,700 per OR hour plus the variable cost of performing the case.


**Nurse practitioners for preop assessment**

A review of the emerging role of nurse practitioners in preoperative preparation.


**Nurse practitioner-assisted assessment**

A nurse practitioner-assisted preop assessment program maintained quality outcomes in the first year of use at Cincinnati Children’s Hospital. The program was introduced because of a shortage of anesthesiologists and rising surgical demand.


**Motivated surgeons.** “We had 2 very motivated surgeons to start the project,” Keaton says.

**Formal agreements.** The leaders negotiated formal agreements with all parties involved. “I met with each department and talked about how we could facilitate the process so the patient would have a better outcome,” says Canfield. “We kept the focus on the patients. Everyone said, ‘You’re right. We want this for the patients.’”

**Data reporting.** Reports helped others to see what the 2 teams were achieving, which created peer pressure for others to want to improve.
Role of preop clinic in OR efficiency

What role does a preoperative clinic play in addressing medical problems that could cause delays or cancellations if patients aren’t assessed until the day of surgery?

In a new study, researchers conducted a 3-month retrospective review of records of more than 5,000 patients seen in the preop clinic at Brigham & Women’s Hospital, a major teaching center in Boston.

In all, 13% of patients were found to have an unresolved medical issue when they came to the clinic. Of those, 18% had their perioperative management changed because of information gained during their clinic evaluation.

The researchers wanted to know how many of these problems were already known and how many were identified for the first time in the clinic. Because many of Brigham’s patients are referred from elsewhere, the hospital often must retrieve their records, which is time consuming.

Results showed 83% of the problems were known, and 17% were new. Most of the problems for both groups were cardiac.

The researchers concluded that a preop evaluation center can identify the type of medical issues that could potentially cause delays or cancellations on the day of surgery. Cost savings could be significant.

The researchers could not identify the exact reason why cases were delayed or cancelled on the day of surgery because Brigham’s reporting system currently does not capture that level of detail. In a review of charts for 1 month, they found 6.8% of cases that came through the preop clinic were cancelled, but none because of an inadequate workup or unresolved medical issues.

Centralizing helps ensure that regulatory requirements are met, such as those of the Joint Commission and Medicare.

A preop clinic can also improve compliance with protocols that improve patient outcomes, such as those for perioperative beta blockers, changes in anticoagulation regimens, and glucose control.

“Having a centralized location for these institutionwide protocols is easier than having individual physicians making sure patients are meeting these protocols,” he says.

Regarding the cost of a preop clinic, Dr Correll comments, “if anything, we believe centralizing these activities actually saves money rather than costing money. Regardless of where these things get done, they need to get done.”

Without a clinic, “it just gets shifted somewhere else, like to the day of surgery. The amount of time and personnel costs are probably already there. They are just divided into different areas.”

Brigham’s preop clinic

Brigham’s clinic sees about 1,600 patients a month. About 85% of surgical patients have their preop evaluations at the clinic, with about 10% of these screened by phone.

Most of the patients are seen by nurse practitioners (NPs) who perform all 3 major assessments—the history & physical, nursing assessment, and preanesthesia evaluation. Having the NPs perform the preanesthesia assessment cuts down on patients’ wait time because they do not have to wait to see an anesthesia provider, Dr Correll notes.

Centralizing the process

The findings show the benefit of having a centralized preoperative process rather than a piecemeal one, says the lead author, Darin Correll, MD, instructor in anaesthesia at Harvard Medical School. He believes this is the first study to have examined the relationship between having complete information on patients before surgery and OR efficiency.

There are other arguments for centralizing the preop process, he adds.

Reference

Temperature monitoring

Temperatures must be monitored and recorded for areas where tissue is stored, including refrigerators and freezers, with alarms to warn if temperatures are out of range. Must the temperature also be monitored in areas where tissue is stored at room temperature?

Megan Sawchuk, MT(ASCP), associate director of the Joint Commission’s Standards Interpretations Group, told OR Manager: “For room temperature tissue storage, we require the temperature to be documented at least once a day, and there is no requirement for continuous monitoring or alarms.”

The storage area temperature is checked once a day and logged at Charleston Area Medical Center (CAMC) General Hospital in Charleston, W Va.

During a Joint Commission survey in August 2006, the surveyor “didn’t really comment on the ambient air log. But she impressed on us the importance of maintaining the continuous tracking of temperature for the refrigerated and frozen products,” says Cathy Dorsey, RN, BSN, CPAN, clinical management coordinator for surgical services. The surveyor also wanted to know how CAMC was meeting the standards, including the backup plan for maintaining the temperature 24 hours a day 7 days a week.

CAMC’s refrigerators and freezers have continuous temperature monitor-
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A tracer on tissue

During a Joint Commission survey in August 2006 at Charleston Area Medical Center (CAMC) in Charleston, W Va, the surveyor reviewed tissue tracking as part of a patient tracer.

The surveyor “was very thorough. She wanted to know exactly how we tracked tissue from arrival to the time of implantation,” says Cathy Dorsey, RN, BSN, CPAN, clinical management coordinator for surgical services at CAMC’s General Hospital.

For the tracer, the surveyor requested a patient chart. When she noted the patient had received a tissue graft, she asked to review the tissue log kept in the Central Service (CS) Department.

How tissue is tracked

CAMC uses a 4-part tracking form, which is initiated by CS staff as tissue products are received. A copy is kept in CS with the tissue log. When tissue is needed for a patient, the form is attached to the tissue product, and an OR nurse verifies that the information on the form matches the product. When the tissue is implanted, the nurse attaches the patient’s identification label to the remaining 3 copies of the form.

One copy is returned to CS to complete the tissue log. 1 copy is used for QI, and the remaining copy is used for billing.

During the tracer, the staff showed the surveyor the log and identified the tissue used for that patient. They then showed her the tracking form.

“The surveyor was able to look at the form to see that the product was received in good condition and that the tissue’s expiration date, lot number, manufacturer’s name, and so forth matched the tissue log entry,” Dorsey says.

In the patient record, the surveyor reviewed the implant documentation completed by the OR nurse. She verified that the OR nurse’s copy of the tracking form had been completed and sent back to CS and that the patient’s identification and entries in the tissue log were complete.

The surveyor also checked the temperature logs and asked what training had been provided for the CS staff who receive and log tissue.

surgeons who have implanted tissue asking them to inform the hospital if they have had an event or do in the future. Shaneberger created a form to document the response and to follow up.

Surgeons at Jefferson Regional Medical Center inform the hospital if there are adverse events, which would be referred to the risk manager. If a patient returns to the OR with a tissue-related complication, that is documented and reported to the performance improvement department. Surgical infections are monitored by an infection control professional for both outpatient and inpatient surgery.

Staff education

Getting 100% compliance from the staff is perhaps the most challenging aspect of meeting the tissue standard, managers say.

Dorsey says education and teamwork with the central service staff are the keys to being successful. Tissue tracking is part of the staff’s annual competency training at CAMC. Over the past 3 years, CAMC has developed a standardized documentation system, education, and competency validation for its 3 hospitals.

“We require all staff members who have a part in this process to take a written test that is adapted from year to year to address areas we have identified as possible problem areas as well as to demonstrate correct documentation of the tracking process,” she says.

“We have had to shift the staff’s thinking to document tissue the same way they would a blood product in the patient record,” she says. Documentation takes close attention because tissue labels are not consistent. Some have complete information, but others do not. For the first year, tissue documentation sheets were reviewed daily.

“Now we’re doing random reviews and maintaining 100% compliance,” Dorsey says.

All tissue at CAMC comes through the CS department. Like the nursing staff, the CS staff must pass an annual competency to demonstrate they are assessing tissue condition on arrival, logging it, and signing it out properly.

A Q&A with the Joint Commission on its tissue standard was in the June 2005 OR Manager, p 19, 20.
Parallel processing to reduce OR time

Parallel processing—performing some tasks in tandem—is one strategy that helped an Ohio hospital reduce nonoperative time by 37%, from nearly 65 minutes to 42 minutes. Turnover time was reduced by 38%, from about 43 minutes to 26 minutes.

The project team analyzed patient flow from the surgeon’s office through discharge from the OR suite. The team then determined which activities could be performed in parallel and which could be removed from the OR. (Nonoperative time was defined as time not devoted to performing the operation; it is the sum of anesthesia-controlled time and turnover time.)

The 3-month study was conducted in 2 of 17 ORs at MetroHealth, a county-owned academic medical center in Cleveland. The study involved cases with an expected operating time of 2 hours or less, with similar cases in the other 15 ORs serving as controls.

The broad-based team included surgeons, anesthesiologists, and OR staff as well as support employees, such as those from environmental services.

Important lesson

The most important lesson—“you need to involve everyone from preop testing to the PACU in your new process, and you need buy-in,” says the team’s leader, anesthesiologist Maureen Harders, MD. Consultants from the Twin Peaks Group (www.twin-peaks-group.com) worked with MetroHealth on the project.

Strategies were identified to help reduce nonoperative time in each phase of care—preoperative, intraoperative, and postoperative. Though some fell by the wayside at the end of the study, others have become part of daily practice.

Before launching this type of project, it’s important to involve senior management, says Dan Kruпka, PhD, of the Twin Peaks Group.

Saving time during the day won’t be of benefit unless the hospital can generate enough surgical cases to fill out the work day. Also, anesthesiologists will lack an incentive to reduce nonoperative time if their billable hours are reduced, and hospitals could see a reduced reimbursement for CRNAs they employ.

MetroHealth opened a new 20-room OR suite in 2004, and the team was able to take advantage of new technology, including OR tables with mobile tops (Trumpf Medical Systems.) But the new suite also presents logistical challenges—the distance around the suite is a quarter mile.

“We can put on 4 or 5 miles a day walking back and forth, so we have to try to be efficient,” Dr Harders says.

These are strategies they adopted for each phase.

Preoperative strategies

Improvements in the preop phase may help reduce delays and cancellations on the day of surgery.

To address the problem of missing consents, the hospital now requires the consent to be signed in the surgeon’s office, scanned, and sent to the OR suite through the hospital’s information system.

Also, more patients, about 80%, are seen in the hospital’s presurgical clinic before the day of surgery. Nurse practitioners and anesthesia residents perform the assessments, which help identify patients who may need more of a workup before surgery. The goal is to have workups and charts completed the day before surgery.

Day of surgery

Strategies for the day of surgery are aimed at reducing nonoperative time and performing nonclinical activities outside the OR.

Modular OR tables

Though MetroHealth purchased the modular tables for its new ORs, they were not used to full advantage. In fact, Dr Harders says a suggestion from Trumpf got her and others thinking about redesigning the process.

Examples of process redesign

Tasks transferred out of the operating room:
1. Patient placed on mobile table top in holding area
2. Preoperative nurse interview obviates need for circulating nurse interview
3. Patient taken to postanesthesia care unit on mobile table top

Parallel processing
1. Anesthesia provider interviews next patient and obtains medications during ongoing case
2. Environmental services personnel begin room cleanup as dressing is placed
3. Anesthesia personnel split duties: One takes current patient to PACU while the other prepares room for next patient
4. Circulating nurse and scrub person open instruments and prepare room during cleanup
5. Case carts brought to substerile area before room cleanup

Minimization of nonclinical disruptions
1. Operative permits are scanned in surgeons’ offices
2. Mandatory presurgical evaluation instituted
3. All patient information (including operative permits) available on hospital information system


The tables have movable tops that patients remain on from the preop phase until discharge from the OR suite. The table top fits onto a transporter, which is wheeled to the OR, where the table top is transferred to a column mounted in the OR floor.

Using the tables takes coordination.

Continued on page 21
Savannah, Georgia

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Rethinking case activities

Tips for reducing nonoperative time:

Focus on time from close to cut
To be more efficient, focus not just on turnover time but on nonoperative time—the time from close of the incision on one patient to the incision on the next. This includes anesthesia activities as well as turnover tasks.

Conduct a pilot
Pilot the project in 1 or 2 ORs, not the entire OR suite.

Could you add another case?
Consider whether you can save enough time to add an additional case. Shaving a few minutes from each case is unlikely to provide enough time.

“...if you focus on reducing nonoperative time for shorter cases, you may be able to free up enough time,” says consultant Dan Krupka, PhD.

The corollary: Will you be able to generate new cases to fill the extra time?

Garner support
You must have the support from physicians and administrators. At MetroHealth, the chief of surgery, chief of anesthesia, and other physicians “were keen to reduce nonoperative time,” Krupka says. The project was led by a high-level steering committee that supported a broad-based task force that included everyone affected by the new process. The structure helped cut through barriers, such as getting budget approval for new disposable mop heads to enable faster room cleaning.

Map the process
The task force mapped the nonoperative process minute by minute.

“We asked, ‘How will we change this process to make use of technology [like new OR tables with portable tops] with the target of a 35-minute nonoperative time?’” says Krupka.

Look at tasks that can be done in parallel, such as having the anesthesiologist see the next patient while the nurse anesthetist or resident is finishing with the current patient.

The result was a better-coordinated process.

Eliminate delays
Consider all types of delays, not just those between cases. Work to resolve issues such as missing instruments and paperwork.

“I believe if you really concentrate on the short cases, think about parallel processing during nonoperative time, and eliminate delays, you should be able to get nonoperative time down to 45 minutes,” he says.

Rewards for staff
What can motivate OR staff to save time when their “reward” might be another case added to the schedule? Though add-ons are hard to avoid in a busy OR, nurse managers try to arrange for staff who have worked through the day to use their time at the end of the day to work on projects in a less hurried manner, Dr Harders notes.

“Now there is a focus on them as part of the team, and they have done a great job,” she says. The project team got budget approval for a disposable mop system that is quicker to use and more sanitary.

Status of the project
Though the study was focused on 2 ORs, all of the ORs reduced their nonoperative time during the project, Dr Harders notes. Some changes that have become part of daily practice include scanning the surgical consent and having holding area nurses perform more of the preop assessments. Dr Harders says she and the chief of surgery, Mark Malangoni, MD, plan to ramp the project back up and apply it to more ORs early in 2007.

Reference
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in the OR Manager print version.
Bonus plans reward peak performance

A mbulatory surgery centers (ASCs) employ a variety of bonus and profit-sharing strategies to retain and reward staff.

Many centers award bonuses based on a percentage of net profits. Some ASCs require the center to hit financial targets for a profit-sharing payout. Others give bonuses if employees meet a percentage of the centers’ strategic objectives and performance indicators, such as patient and physician satisfaction and staff hours per case. At least one center gives employees the option to pour profits into their 401(k), and another splits a percentage of profits simply for a job well done.

Regardless of the way the profit-sharing pie is cut, ASC directors say bonus plans ultimately save money because the staff works harder and smarter to get them.

“When a bonus is based on net profits, staff work together to help the center achieve its financial goals,” says Debra Stinchcomb, RN, BSN, CASC, chair, Foundation for Ambulatory Surgery in America, and director of surgical services for Progressive Surgical Solutions, an ASC development company. “Basing bonuses on performance makes the center’s success the employee’s success.”

‘Most important benefit’

Laura Murphy, RN, BSN, MHA, CASC, director of operations at the Evansville Surgery Center in Evansville, Ind, says her center’s employee incentive plan is the single most important benefit offered employees—more than health insurance, 401(k), or vacation benefits. “You could eliminate any other benefit except the incentive plan, and I believe our staff would still be satisfied,” she says. “Our employees work hard to get their bonuses, and they look forward to it every year.”

Evansville Surgery Center has offered a financial incentive plan since it opened 24 years ago. The center bases the bonuses on:
- expense per case
- patient satisfaction
- physician satisfaction
- gross revenues
- operating margins.

Staff receive a bonus based on the first 3 performance indicators because they can control their outcome, Murphy says. Management receives a bonus based on these as well as other operational and financial indicators. Staff is informed through the year on the center’s progress in meeting indicators. A white board in the meeting room charts the numbers.

Because they see their part in meeting financial goals, staff have an excellent grasp of financial terms and concepts, Murphy says. “If revenues are down, they want to know about profit margins and contractuals and what they can do to hit our targets.”

Stinchcomb adds that ASCs are a model for the appropriate sharing of proprietary financial information with employees to empower them to work for the company’s success.

Staff receive shares

At the end of the year, the board of directors at Evansville Surgery Centers decides on a percentage of profits to be split. Although the bonuses are not guaranteed, the board has given them every year.

The average bonus has been a 4% split of net profits. The center divides the net profit by shares. Full-time staff receive 4 shares; staff that works three-fourths time get 3 shares; part-time staff get 2 shares; and per diem staff receive 1 share.

Murphy says in the past, the incentive payout was based on the employee’s rate
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This policy was changed to emphasize teamwork and the contribution of each member of the team.

Bonus pay day is on Groundhog Day in February. The center throws a party and buys everyone Groundhog Day T-shirts. Murphy says in 2007 staff will receive only about 2.5% of profits, compared to the 4% average, but because of centerwide cost-cutting measures and increased profits, the actual dollar amount should be about equal to prior years.

“The bonus gives staff psychological ownership of the center,” Murphy says. “It is a great motivator for staff to keep costs down. They care for our surgical instruments like the dishes in their own kitchen.”

Owners not renters

Bonus requirements are similar at Harmony Ambulatory Surgery Center in Fort Collins, Colo. For everyone, including management, to receive a quarterly 5% split of net profits, staff must meet bonus incentive indicators, says administrator Rebecca Craig, RN, BA, CNOR, CASC.

“One bad apple affects everybody’s bonus, including mine,” Craig says.

The bonus incentive indicators are based on the center’s strategic objectives (table). Individuals automatically become ineligible for bonus consideration if they are written up for negative behavior.

The center implemented the bonus program in 2001 after 1 year of operation. The goal was to motivate staff to reduce staff hours per case, Craig says. With the bonus, full-time employees can be sent home on a slow day, but their wages are recouped with the quarterly bonus, Craig says.

The bonuses also keep the center competitive with higher hospital wages. “Hospitals in this area have left us in the dust with wages, but we have stayed competitive with them because we offer the quarterly bonus, plus no weekend, holiday, or call hours,” Craig says.

Harmony ASC is 51% hospital owned. Craig says hospital board members were concerned at first that the bonus would become an entitlement—employees would expect it even if volume decreased. They also feared the bonus program would be a disincentive if employees didn’t receive a quarterly payout. Craig says that hasn’t been the case because the bonuses have encouraged employees to think and work as if they are the center’s investors.

“They view themselves as owners, not renters,” Craig says. “They are very aware of our financial status, and they know it behooves them for our center to be busy. Just like an investor, they want to know if it really is necessary to spend $50,000 on a new OR table.”

Craig says her center’s profit-sharing system requires more time from managers to review 85 employee records quarterly to ensure compliance.

Appealing to mature employees

El Camino Surgery Center in Mountain

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<table>
<thead>
<tr>
<th>Bonus incentive Indicators: 3rd quarter 2006</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide excellent customer service</td>
<td>50%</td>
</tr>
<tr>
<td>Patient satisfaction: Must be at least 95%; however, “Courteous Staff” must be 99%</td>
<td>95%</td>
</tr>
<tr>
<td>Physician satisfaction: Must be at least 95%; however, “Staff willingness to help” must be 99%</td>
<td>95%</td>
</tr>
<tr>
<td>Maintain current turnover time</td>
<td>Posted for each area</td>
</tr>
<tr>
<td>Maintain financial strength</td>
<td>50%</td>
</tr>
<tr>
<td>Case costing &amp; inventory accuracy: At the end of the quarter, the selected item will be reviewed for accuracy (AdvantX inventory module compared to physical count must be within 10% of each other)</td>
<td>Cannot be lower than 90%</td>
</tr>
<tr>
<td>Man-hours per case must be kept under the benchmark (12 hr/case)</td>
<td>12 hr/case</td>
</tr>
<tr>
<td>Medical supplies per case must not be greater than $30 above the FASA benchmark ($160) for the quarter</td>
<td>Cannot exceed $190/case</td>
</tr>
<tr>
<td>Enjoy and improve where you work</td>
<td>100%</td>
</tr>
<tr>
<td>Performance (attitude/behavior): Must always be met to receive any bonus amount at the end of a quarter</td>
<td></td>
</tr>
</tbody>
</table>

Note: All staff must meet performance indicator goals to receive the quarterly bonus payout. Any employee who receives disciplinary action for poor attitude or behavior in that quarter does not receive a bonus.

Source: Harmony Ambulatory Surgery Center, Fort Collins, Colo.
Anticoagulants a med safety focus for 2007

Anticoagulants take center stage in the Institute for Safe Medication Practices (ISMP) New Year’s “high-alert medication” feature. When used or omitted in error, anticoagulants can cause life-threatening or fatal bleeding or thrombosis.

The ISMP Medication Safety Alert—Acute Care for Jan 11 provides:
• a list of common risks of anticoagulants
• a checklist for safety improvements.

The institute recommends conducting a failure modes and effects analysis (FMEA) to identify sources of failure with anticoagulants and key improvements for reducing the risk of harmful errors. A sample FMEA is posted at www.ismp.org. Look under Medication Safety Tools and Resources.

Anticoagulants are also receiving attention from the Joint Commission, which has proposed a 2008 National Patient Safety Goal on anticoagulants, and the Institute for Healthcare Improvement, which has targeted anticoagulants in its new 5 Million Lives Campaign.

ISMP’s “high-alert medication” list is based on extensive review of errors submitted voluntarily to its medication errors reporting program plus input from experts and literature reviews.

The alert is posted at www.ismp.org. Look under Newsletters, Acute Care.
**Risk management: Is your ASC vulnerable?**

During a preoperative screening, a nurse learns that a patient scheduled for a hernia operation in your ambulatory surgery center (ASC) has several comorbidities, including cardiac disease and chronic obstructive pulmonary disease. The history and physical are sketchy.

In another case, a patient seems confused about the procedure she is having even though she has signed the surgical consent.

If these scenarios sound familiar, it’s not surprising. They represent some of ASCs’ top liability risks. Here is a look at 3 of the top risk management issues for ASCs:

- **Patient selection**
- **Management of complications and emergencies**
- **Informed consent**

Another top issue, patient discharge, will be discussed in the March OR Manager.

**Patient selection**

Without question, patient selection is “the number one risk management issue for ASCs,” says Michael Midgley, RN, MPH, CPHRM, a risk management consultant for AIG Consultants, Inc, Health Care Management Division, New York City, who spoke at the 2006 FASA annual conference.

It’s essential for facilities to have specific, written criteria to guide patient selection.

“ASCs must have written criteria for surgical procedures they can accommodate,” he says. These need to be formally approved by the medical director and credentialing/privileging committee.

“If you don’t define the approved cases, there’s a danger physicians may try to go beyond what is appropriate for an ASC,” he says.

The criteria need to be available to the scheduler and nurse manager to consult when procedures are scheduled. Midgley recommends having a list of procedures considered appropriate for your ASC, “the more specific the better.”

For example, if your center performs cholecystectomies, are both laparoscopic and open procedures acceptable?

Ultimately, the medical director is responsible for the criteria and for seeing that they are followed, he adds.

**Medical oversight**

Though surgeons and anesthesiologists are typically independent contractors, the ASC has an obligation to provide oversight for their activities.

“If there is a surgical complication that results in a negligence claim, the ASC will be better able to defend itself if there is documentation that can demonstrate that it exercises oversight,” he says.

ASCs grant credentials and privileges to the medical staff, a process that needs to be repeated every 2 years. Any physician concerns should be considered in credentialing. Concerns may be identified through the performance improvement program, patient safety initiatives, patient complaints, complication rates, and so forth. This should be clearly outlined in the medical staff bylaws.

Patients also need to be informed about the relationship between ASCs and their providers. Midgley encourages ASCs to post a sign at the reception desk stating that the surgeons and anesthesia providers are independent contractors. Some ASCs also ask patients to sign a document stating that they have been informed of this fact.

By informing patients of this nonemployee relationship, the ASC reduces the potential for liability claims, he notes.

**Managing complications and emergencies**

ASCs need well-planned policies and procedures for managing emergencies, such as an adverse reaction to anesthesia or unexpected blood loss.

“Many negligence claims involve a cascade of bad decisions and delayed reactions,” Midgley says.

He emphasizes the need for education and drills to sharpen clinicians’ skills.

Patients warranting a careful look

These situations require special attention in patient selection.

**ASA 3 and above**

Typically, ASCs specify that any procedure for a patient above ASA Class 3 requires the approval of the medical director. (ASA refers to the American Society of Anesthesiologists patient status classification.)

**Morbid obesity**

Consider whether patients over 300 pounds are appropriate candidates for the ASC. They are more likely than other patients to have comorbidities like diabetes and difficult airways. Also consider whether the facility has the equipment, such as beds, assistive devices, and imaging equipment to care for these patients appropriately and safely.

**Children**

“Most experts are not recommending outpatient surgery for infants under 9 months of age,” Midgley says.

**Patients having lengthy surgery**

Procedures over 3 hours typically need to be performed in the inpatient setting, advises Midgley. The same is true for patients needing an extended recovery stay.

**Certain procedures with higher complication rates**

For example, open gastrointestinal procedures have an increased rate of infection. Some procedures require a patient to be in one position for an extended period, with the potential for nerve injuries.

**Hard-to-control pain**

Patients whose postoperative pain will be difficult to control may not be good candidates for an ASC. An example is those who require a patient-controlled analgesia pump.
ASC bonus plans  
Continued from page 25

View, Calif, uses its bonus plan to boost 401(k) contributions. Executive director Lisa Cooper, RN, BSN, BA, CNOR, explains that 5% of what they contributed toward their 401(k) that year, whichever is less. An employee who has worked 5 years or more at the center can receive a 100% match to the 401(k) contributions.

“It can be a significant amount, especially for those putting a lot into their 401(k),” Cooper says.

The center’s bonus plan appeals to mature employees.

“More sophisticated employees with a 401(k) mindset appreciate the program, and that’s the kind of long-term employee we want to attract and keep,” Cooper says. “Employees who want an immediate gain are often the ones who jump from center to center.”

After the 401(k) distribution, employees who have worked at the center at least 6 months and who are not enrolled in the 401(k) split the remainder according to hours worked.

One year in El Camino’s 15-year history, the center chose to give all qualifying staff a cash distribution at the end of the year instead of the 401(k) deposit.

“It was a challenging year for recruitment. A cash payout helped us that one year when we needed to provide immediate satisfaction to fill positions,” Cooper says.

She recommends that centers devising a bonus or profit-sharing incentive program include language in the governing board’s operating agreement that gives the center flexibility to change the way profits are distributed.

More for superstars

John Mazoros, managing partner of Fremont Surgery Center in Fremont, Calif, uses his center’s average 3% bonus to compete with hospitals for top talent.

“In our region, hospitals are paying high salaries for OR and GI nurses,” Mazoros says. “We raise our hourly pay to $44, and the hospital raises theirs to $48. It’s a very tough market.”

His center pays staff a biannual bonus that Mazoros determines on an individual basis.

“Employees are fully aware that bonuses are subjective,” he says.

Most staff average a prorated split of 3% of profits. However, Fremont’s superstars, such as the center’s business office marvel, can get up to 9% of the biannual bonus pot, Mazoros says.

Reward for hard work

The Naugatuck Valley Surgical Center in Waterbury, Conn, rewards staff with an equal bonus across the board. At the annual holiday party, staff receive between 1% and 5% of net profits, depending on the year, prorated by number of hours worked.

“I don’t believe you can reward one individual over another when caring for patients is such a team effort,” says executive director Betty Bozzuto, RN, MBA, CASC.

With almost zero turnover, the center does not believe its end-of-year bonus is paramount in retaining staff, although staff do appreciate the money, Bozzuto says.

“We give the bonus purely to recognize their hard work,” Bozzuto says. “We have a 99% to 100% patient and physician satisfaction rate, and that’s a total reflection of my staff going the extra mile.

“They know that the better they work, the harder they work, and the more money they save the center, the greater their bonus will be.”

—Leslie Flowers

Leslie Flowers is a freelance writer in Indianapolis.

ASC risk management  
Continued from page 27

responses. A good time for drills is on a light surgery day. Managers could set up a mock emergency and allow clinicians to practice.

Be sure to document drills that are held.

“It’s one thing to have a policy saying you do drills, but you need to demonstrate that you actually perform them,” he says. Document attendance as well as the drill’s scenario and debriefing that took place afterward.

When complications arise, a timely recognition and response are critical.

“In many emergencies, it’s the failure to identify a change in the patient’s condition that leads to disaster. A subtle change in vital signs can be the first clue. This needs to be emphasized with the nursing team—it comes down to good communication with the medical staff and alerting the surgeon of subtle changes. Don’t wait to see if the patient’s condition will improve in 15 minutes—it may be too late,” he says.

Other points to consider:

• ASCs need a transfer agreement with a local hospital to accept patients in emergencies. The agreement should be specific. For example, in case of a cardiac emergency, does the hospital have a cardiac interventionalist available during the hours the ASC is open?

• Postop phone calls to patients need to be documented. If patients don’t answer the first time, several attempts should be made and documented.

• There needs to be a procedure for routinely collecting data from surgeons and nurses about postoperative infections. This data should be included in the ASC’s performance improvement plan.

Informed consent

The purpose of informed consent is to make sure the patient is fully informed about all of the risks and benefits of the procedure and related care so the patient can make an informed decision about whether to have the treatment.

Informed consent also is a regulatory
requirement. Medicare’s guidelines for surveyors on the conditions of participation for ASCs state that patients’ medical records must include, among other things, “documentation of properly executed informed patient consent.” Accrediting bodies, including the Accreditation Association for Ambulatory Health Care and the Joint Commission also have informed consent requirements.

The informed consent for surgery is, of course, the surgeon’s responsibility. The patient also needs to be informed about anesthesia and other care provided in the facility.

Though it is not a requirement, Midgley recommends 3 separate informed consent documents—to cover the surgeon, anesthesia services, and the surgery center itself.

“Typically, there are 3 separate entities involved, and this needs to be reflected in the informed consent process. This may seem a little labor intensive, but it’s to protect all of the parties involved,” he says.

Ideally, the surgical consent is documented on the surgeon’s own letterhead. The anesthesia consent is also best documented on the anesthesia group’s letterhead.

The ASC’s consent form should meet legal and regulatory requirements and is best drafted by the facility’s legal counsel.

Consent documents are kept in the patient’s record, which is retained for the period specified by law.

Who owns ambulatory surgery centers?

The lion’s share—88% of surgery centers—have some element of physician ownership. About half are owned 100% by physicians. Hospitals have an ownership in 32% of ASCs, a 3% increase over 2 years ago. The ownership survey, conducted by the American Association of Ambulatory Surgery Centers (AAASC), was sent to about 500 ASCs with an 18% response.

<table>
<thead>
<tr>
<th>Mix of ownership</th>
<th>Before 2004</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>All physicians</td>
<td>48%</td>
<td>47%</td>
</tr>
<tr>
<td>Physician &amp; corporation</td>
<td>23%</td>
<td>21%</td>
</tr>
<tr>
<td>Physicians &amp; hospital only</td>
<td>18%</td>
<td>20%</td>
</tr>
<tr>
<td>Physician, hospital, &amp; corporation</td>
<td>6%</td>
<td>5%</td>
</tr>
</tbody>
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Rare but deadly complication of bone cement

Patients having hip replacement surgery can in rare cases develop bone cement implantation syndrome (BCIS). In 5 out of 6 reports of the syndrome received by the Pennsylvania Patient Safety Authority, the patient died from cardiac arrest associated with the implantation of the new prosthesis.

Though use of cement for hip replacements decreased from 66% in 1995 to 39% in 2001, the authority says it believes the issue warrants attention.

Patients at risk

Elderly patients with underlying heart disease who need surgery for a hip fracture using bone cement are most at risk. Also at risk are patients who have severe osteoporosis and patients who have fixed heart rates with pacemakers.

“The cases we’ve seen through the reporting system involve patients who were having hip replacement surgery done using bone cement,” says John Clarke, MD, clinical director of the state’s patient safety reporting system.

The syndrome is actually caused by the seal and pressure that develops when the hip prosthesis is inserted after the cement has been placed, not by the cement itself, Dr Clarke explains, noting other materials could also cause the same seal and pressure.

Warning signs

Some warning signs that occur within minutes of using the bone cement include:

- low blood pressure
- fluid in the lungs
- increased airway resistance
- irregular heartbeat
- hypothermia
- increased bleeding.

Also in the authority’s December 2006 newsletter are articles about perforations of the colon during colonoscopy, methods for confirming feeding tube placement, and dangers associated with heparin therapy.

The authority is an independent state agency created in 2002 to help address health care errors by identifying problems and recommending solutions that promote patient safety. Health care facilities are required to report serious events to the authority.

The authority says it has received more than 430,000 reports since 2004, of which 96% are near misses. The authority publishes quarterly and supplementary advisories to make facilities aware of steps they can take to reduce errors and avoid patient harm.

Please see the ad for INTEGRATED MEDICAL SYSTEMS in the OR Manager print version.
Joint Commission shortens name

The accrediting body for hospitals and other entities will now be known simply as the Joint Commission as part of a redesign of its brand and web site. Also going away is the nickname “Jayco.”

The web site has new sections for nurses and physicians, as well as the usual Joint Commission activities.

— www.jointcommission.org

Simple measures reduce catheter-related infections in ICU

Careful adherence to simple and inexpensive hygiene measures can dramatically reduce the spread of infections in hospitals, according to Johns Hopkins researchers. Their 2-year pilot project to reduce catheter-related bloodstream infections in ICUs of Michigan hospitals used stricter protocols for hand-washing; cleaning skin around catheters; and wearing sterile masks, gowns, and gloves. Physicians removed catheters from patients as soon as possible and avoided inserting catheters in the groin area. Within 18 months, the rate of infections dropped some 66%.


Surgeon investment in spinal devices raises concern

Spinal fusion surgery is one of the most lucrative areas of medicine. But there have been serious questions about its effectiveness. There are also questions about a growing trend among some surgeons to profit by investing in companies that make spinal implant hardware, according to the Dec 30 New York Times. A single screw can sell for $1,000, which may be 10 times the cost of making it.

Federal regulators are voicing concern. Because most of the 30 or more start-up companies that have begun selling spinal devices in the past 2 years are private, there is no way to know how many spine surgeons are partial owners. Hospitals are beginning to require surgeons and device makers to disclose financial relationships, the Times reports.

— www.nytimes.com

A third of ICDs may be unnecessary

Though many patients benefit from implantable cardioverter defibrillators (ICDs), a new study from the University of Michigan finds as many as one-third will not. A simple heart-rhythm test can tell the difference, saving patients from unnecessary surgery and Medicare $90,000 per patient. The test, known as MTWA, for microvolt T-wave alternans, measures changes in calcium levels in the heart. Each year, Medicare pays for tens of thousands of patients to have implantable cardioverter defibrillators (ICDs) placed in their chests.


Surge of older new RNs could ease projected shortage

An unexpected surge of new nurses in their late 20s and early 30s means the shortage of nurses by 2020 may not be as bad as feared. Nurses born in the 1970s are entering the workforce later than previous age groups and in greater numbers than those born in the 1960s, say authors of a new analysis.

Based on their latest estimates, the shortfall is projected to be less than half what was projected earlier, with a shortage of 340,000 RNs by 2020 compared with the earlier forecast of 760,000.

“With its relatively attractive entry wage, high job security, and relatively small educational investment, nursing has become an attractive career option for people in their 20s or early 30s who might have begun careers in other fields,” the authors say.

Still, they note, the shortage of 340,000 is 3 times larger than the current shortage when it was at its peak in 2001.

Two routes of entry have become increasingly common—nurses are graduating from AD programs after spending their early 20s in other careers or not working, and they are entering via accelerated BSN programs for those who already have another bachelor’s degree. 