Safer surgery: Ten elements to help improve patient care and revenue

For hospitals, quality and revenue are increasingly intertwined. Performance on quality measures like appropriate antibiotic administration, surgical site infection rates, and patient experience is being woven into reimbursement by Medicare and private payers.

Your hospital likely will have some payment at risk for not meeting and improving on quality measures. But it can also benefit from superior performance. Better-performing health systems can negotiate more favorable rates from insurers and attract physicians, who also benefit from doing well on quality metrics. That in turns attracts more patients, bringing more surgical volume and market share.

It’s a shift for hospitals that are used to fee-for-service payment in which they perform a service, submit a claim, and expect to be paid.

In this issue, OR Manager begins a series on page 8 titled Ten Elements of Safer Surgery, focusing on how your department can improve care for patients and in turn improve your business. The series is based in part on Safer Surgery, an initiative of Advocate Health Care, a 10-hospital system in the Chicago area.

Joint project targets prevention for colorectal surgical infections

Seven hospitals working with the Joint Commission and the American College of Surgeons (ACS) on a 2-year project to reduce colorectal surgical site infections (SSIs) have saved more than $3.7 million by avoiding an estimated 135 SSIs, the commission announced in November 2012.

The commission is pilot testing the approach used in the project with the aim of rolling out targeted solutions for all accredited hospitals in 2013.

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Editorial

When you read the disturbing reports linking nurses’ stress, burnout, and workload to worse patient outcomes, you wonder why staff and patient safety aren’t addressed together.

In just one example, a study found a high rate of nurse burnout was related with higher rates of catheter-associated urinary tract infection and surgical site infection (Cimiotti JP, et al. Am J Infect Cont. 2012;40:486-490).

A new report from the Joint Commission bridges the gap, tying together the twin objectives of making health care safer for patients and workers alike.

Too often, these efforts run on parallel tracks—the quality department focuses on patient safety, occupational health addresses employees, risk management deals with sentinel events, and so forth.

The report urges that these silos be spanned and makes the case for why these programs should be seamless.

Actually, there’s a lot of overlap—a culture of safety for patients won’t take root if the staff who provide care are neglected.

The report brings together principles of high-reliability organizations, professional guidelines, health and safety regulations, and Joint Commission standards.

Return on investment

Case studies illustrate the return on investment and other benefits organizations have seen from these programs—better staff retention, fewer sick days, higher patient satisfaction, lower workers comp costs, and fewer lawsuits.

One case study highlights how St Vincent’s Medical Center, Bridgeport, Connecticut, has made employee safety part of its high-reliability culture. Employee safety is defined similarly to patient safety:

• serious safety event: reaches the employee and results in lost work time
• precursor safety event: reaches the employee, results in minimal harm or no detectable harm with no lost time
• near miss event: does not reach the employee; error is caught by a barrier designed to detect and prevent the event.

Data is tracked and trended on employee safety events, just as it would be for patients.

St Vincent’s leaders have adopted practices that advance safety:
• storytelling: sharing stories of harm that happened locally
• daily huddles: briefings to review safety events and concerns housewide and at the unit level
• senior leader rounding: leaders adopt departments to round with patients and employees on safety issues
• safety coaches: staff serve as front-line coaches to promote safety among their peers.

The report is a good resource to share with your leadership, safety committee, and performance improvement teams. It gathers resources that span silos and regulatory initiatives. It matches Joint Commissions standards with OSHA regulations.

This free report does a service by bringing together the principles, strategies, and resources to reinforce the link between worker well-being and the safety of patients.

—Pat Patterson
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• Do You Really Know How Well Your ORs are Being Cleaned?
• Improving the Collaboration of the Perioperative Team to Reduce SSIs

Check out the complete listing of OR Manager webinars on our website, www.ormanager.com
OR business managers and OR directors involved in the financial management of the surgical suite will have an opportunity to sharpen their skills at the second annual OR Business Manager Workshop, April 7 to 9, 2013, at the Marriott City Center, Denver.

This intensive, interactive workshop is an opportunity for OR business managers to increase their knowledge of OR processes, develop critical skills to drive effective business practices for surgical services, and network with colleagues.

The focus is on developing analytical and critical thinking skills as well as on understanding cost components and the overall financial management of the OR.

The workshop will combine didactic material with hands-on group work and presentations. Attendees will learn about creating transparency, driving results, and overcoming resource constraints. They will hear how to align surgical acquisitions with the overall strategic plan of the organization.

Speakers
Two speakers from Northwestern Memorial Hospital, Chicago, will discuss capital acquisition. Glenn Kaleta, MBA, PMP, program manager, Enterprise Project Management Office, and Arshia Wajid, MBA, MPH, project manager, will lead attendees through a capital acquisition project using compliance metrics. Starting with the capital structure, they will go through the proposal process, including the development of the project team roles from executive sponsor to the project manager and stakeholders.

Attendees will develop a project from the planning stage through to closure. The exercise may be a mock-up project, or attendees may bring a project they are developing at their facility.

A popular speaker from the OR Manager conferences, Keith Siddel, JD, MBA, HBL Concepts, LLC, will discuss the charge master, regulatory requirements, and reimbursement for surgical equipment and supplies. He will describe supply management models and their pros and cons.

Participants will also learn details of the revenue cycle, billing techniques, and the difference between bundled and unbillable items.

Other topics
Other topics include the role of the OR business manager and how it affects the OR’s performance.

Discussion will include dashboards and metrics developed in collaboration with clinical management.

Vendor management, value analysis committees, and sustainability will also be covered.

The workshop will open with a welcoming reception on Sunday, April 7, and close at noon on Tuesday, April 9.

Attendance is limited to 75, and participants will earn 14.4 nursing contact hours.

For more information and to register, go to www.ormanager.com/or-business-manager-workshop.
there is room to improve. Through the project, led by the Joint Commission’s Center for Transforming Healthcare, the participating hospitals: • reduced their rate of superficial incisional colorectal SSIs by 45% and reduced colorectal SSIs overall by 32%. • decreased the average stay for patients with any type of colorectal SSI from 15 days to 13 days, compared to an average 8-day stay for patients with no SSIs.

Data-driven process
Participating hospitals followed a data-driven process using surgical outcomes data from the ACS National Surgical Quality Improvement Project (NSQIP) to pinpoint specific risk factors for their patients and to develop targeted interventions to reduce their colorectal SSI rates.

Dr Chassin emphasized the importance of each hospital identifying the risk factors of its own patient population and developing interventions targeted to those risk factors.

“There is no one-size-fits-all way to prevent SSIs,” he said. “We have learned that you have to use sophisticated tools like rapid process improvement, including Lean Six Sigma and change management, to find out exactly how poor outcomes occur.”

Two hospitals represented on a Joint Commission press call achieved a sustained reduction of at least 50% in their colorectal SSI rates.

Source, Cedars-Sinai Medical Center, reprinted with permission.
rates. Cedars-Sinai Medical Center in Los Angeles saw its colorectal SSI rate fall from 15.5% to 5.5% during the 2 1/2 year project and decline to less than 5% since July 2012. The Mayo Clinic, Rochester, Minnesota, reduced its rate from 9.8% to 4%.

Targeted solutions
The participants identified 34 variables that increased SSI risk including patient characteristics, surgical procedure, antibiotic administration, perioperative processes, and measurement challenges.

Among targeted solutions for reducing superficial incisional SSIs were:
• standardizing preop instructions for skin cleansing
• establishing specific criteria for wound management.

Solutions for reducing all types of colorectal SSIs were:
• warming patients to maintain temperature throughout the surgical episode
• weight-based antibiotic dosing.

There were 2 interventions all 7 hospitals agreed on:
• standardizing patient instructions on use of preop skin cleansing with wipes containing chlorhexidine gluconate (CHG)
• changing to clean gloves, gowns, supplies, and instruments for the skin closure.

‘No magic bullet’
At Cedars-Sinai, the surgeon champion, Shirin Towfigh, MD, FACS, worked with a multidisciplinary team of surgeons, nurses, performance improvement specialists, and others to analyze risk factors of the hospital’s surgical population and develop interventions. In all, 46 surgeons were involved.

“We knew there was no magic bullet to prevent all SSI,” she says. She met with each surgeon, including the 10 colorectal surgeons, to see what was feasible to change in their practices to improve quality.

“We tried to make it as simple and easy as possible and not to impinge on the independence of the surgeon’s practice,” she says.

The major interventions are summarized on a one-page sheet (illustration, p 6).

Dr Towfigh says 2 factors were key in achieving the SSI reductions:
• having a surgeon champion rather than an administrator as the project leader
• making sure the interventions were evidence-based.

Interventions were planned so as not to interfere with efficiency. For example, for the skin closure, the OR staff arranged to change to clean supplies and instruments as seamlessly as possible by having the items available in the room. Rather than having a separate closure tray, closing instruments and supplies are set aside at the beginning of the case.

In another change, Cedars-Sinai converted from povidone-iodine to alcohol-chlorhexidine gluconate (CHG) for surgical skin antisepsis, first for colorectal cases and then for other specialties and procedures. However, patients with colostomy stomas that are not being reversed are still prepped with povidone-iodine.

Surgeons were informed the change would be made, and then povidone-iodine for surgical site antisepsis was simply removed from the supply stock, Dr Towfigh says. When nurses expressed concern about pushback from some surgeons, Dr Towfigh told them to refer the surgeons to her, and she would review the evidence with them.

At the Mayo Clinic, Rochester, Minnesota, interventions once adopted are embedded in patient care “so they are part of our system whenever possible,” said Jenna Lovely, PharmD, surgical pharmacotherapy manager.

An example is patients’ body mass index (BMI), which emerged as an SSI risk factor in the Mayo data set. An electronic trigger now automatically identifies patients with a BMI over 30.

"We have moved from this being a QI project to being the way we work," Lovely said.

❖
—Pat Patterson

For more about the colorectal SSI prevention project go to www.centerfortransforminghealthcare.org/projects/detail.aspx?Project=4

A lasting trust in nursing
Nursing once again leads the list of the most trusted professions in Gallup’s new poll.

In all, 85% of respondents rated nursing as very high or high in honesty and ethical standards. Pharmacists and physicians were second and third.

The lowest? Car salespersons, followed closely by members of Congress.

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Solid OR governance is the foundation for safety

Ten Elements of Safer Surgery. First in a series.

What’s the essential ingredient for an OR to run safely and effectively? Many would sum it up with one word—leadership, followed closely by collaboration.

An OR led by a strong team from surgery, nursing, and anesthesia backed by the hospital’s top management places a hospital in a stronger position to meet financial and quality goals.

Safer Surgery

This is the first article in a series on safer surgery, which will cover the components needed to strengthen performance in perioperative services on advancing the quality of care and services. The series is based on the SaferSurgery initiative of Advocate Health Care, a Chicago-based health system with 10 hospitals (sidebar).

Leadership and safety

Without a solid governance structure, it’s hard for a perioperative department to resolve flawed processes that can affect patients.

“I’ve participated in many root-cause analyses over the years,” comments Gary Stroud, MSN, RN, chief clinical officer for Prezio Health. “If you don’t have a solid structure, it’s only a matter of time before you’re going to repeat that root-cause analysis” because core issues tend not to be addressed in a systematic, sustainable way. He was operations officer for the surgical services clinical program at Intermountain Healthcare based in Salt Lake City.

There’s emerging evidence that leadership is key to successful adoption of practices like a surgical safety checklist.

A qualitative analysis of 5 hospitals by the Harvard School of Public Health published in 2011 found effective implementation hinged on leadership persuasion and a coordinated effort to explain the rationale and provide education. Further research is underway.

Experts offer the following factors as keys for a strong governance structure.

Align strategic direction

Because surgery is a core service of most hospitals as well as a revenue and cost center, the strategic goals of the organization and perioperative services need to be aligned.

The surgical services structure at Intermountain incorporates all levels of leadership up to and including the board level.

“The best method I have witnessed [for governance] is to have medical and operational staff participation with board guidance and support,” Stroud says of his experience there. As heads of the system’s surgical services clinical program, he and the medical director of perioperative services led goal setting and planning initiatives, worked with individual hospitals on those initiatives, and sat on committees that included board members.

For Advocate Health Care, OR governance is central to the SaferSurgery initiative. The initiative is aligned with the system’s goals to provide superior patient outcomes and become the best system nationally.

Build a solid structure

Several experts advocate this model for perioperative governance:

• A Surgery Committee is responsible for setting policies and is accountable for seeing the policies are carried out.

• A smaller “executive committee” reports to the Surgery Committee, carries out the poli-

What motivates the members?

The components of Advocate Health Care’s SaferSurgery initiative:

1. Perioperative governing body
2. Single path for surgical scheduling
3. Preanesthesia testing (PAT) with standardized protocols/hospitalists
4. Document management system for scheduling and PAT
5. Excellence in sterile processing
6. Crew resource management
7. Implementation of WHO Surgical Safety Checklist
8. Daily huddle
9. Error reporting
10. Just culture.
**Perioperative governance: Key characteristics**

The surgical enterprise is led by a perioperative governing body that functions like a board of directors.

**Functions**

The governing body:
- manages department resources including:
  - OR and postanesthesia care unit utilization
  - OR scheduling
  - block time qualifications and allocation
  - block time utilization by surgeon and/or group.

- monitors and manages key performance indicators with:
  - defined data elements
  - clear definitions
  - consistent methodology.

**Qualifications**

Governing body members are those who:
- put self-interest second to the organization’s interest
- understand the organization’s financial situation
- are politically astute
- are effective negotiators
- are active listeners
- act as champions
- accept accountability.

Compiled from information provided by Deloitte Healthcare Consulting, Sullivan Healthcare Consulting, and Surgical Directions.

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**Patient safety**

**Policies need to be even handed.**

Select members carefully

Physician membership needs to go beyond titles, Stroud advises. “You need individuals in medical staff leadership roles who come to meetings and who share passion about moving forward with evidence-based practices.”

Advocate Lutheran General (ALG) Hospital in Park Ridge, Illinois, which helps to lead Advocate’s SaferSurgery effort, has a 9-member Surgical Services Executive Committee (SSEC) and a daily operations team.

SSEC members include the vice president for medical management (chief medical officer), the chief operating officer, the chair of anesthesia, the chair of surgery, the executive service line leader for surgery (nursing leader), the OR business manager, the medical director of the main OR, and the chairs of orthopedic and OB-GYN surgery.

The SSEC oversees the block schedule and budget, monitors operational and quality metrics, enforces policy, and sets the agenda for performance improvement.

**Designate a daily management team**

ALG’s daily management team consists of Cindy Mahal-van Brenk, MS, RN, CNOR, the executive service line leader; David Young, MD, an anesthesiologist and medical director of preanesthesia testing; and John White, MD, the chair of surgery. Dr. Young is also a consultant with Surgical Directions.

Leadership has helped to propel Advocate Health’s performance in the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP). Advocate has achieved superior results on morbidity and mortality, urinary tract infection, and surgical site infection. The system’s performance on quality metrics has

Continued on page 10
also earned favorable reimbursement rates from Blue Cross.

Keep motivations in mind
In establishing a governance structure and selecting committee members, Stroud notes, “You need to have an eye toward what motivates everyone who has a seat at the table.”

Some members will participate because they believe deeply in the organization’s mission and others because they benefit personally or professionally.

Establish responsibility and accountability
Responsibilities and accountability for the Surgery Committee and operations team need to be clearly outlined. That extends to policies that govern clinical quality as well as operational issues.

The block schedule is an example. No matter how well designed initially, a block schedule “will never be sustained if you don’t have a governance structure that says, ‘These are the rules. If you don’t follow them, there will be consequences. If you do follow them, we will do everything in our power to make your life as easy as possible,’” says Randy Heiser, MA, of Sullivan Healthcare Consulting.

He adds that in his experience, “98% of surgeons are happy with that model. They want to know the expectations. They want an OR that respects their time.”

Active management is also critical for safety.

“When front-line OR staff believe in the governance structure and are supported for doing the right thing for patients, that is when potential incidents turn into near misses,” Heiser says. “But when nurses believe the only result from speaking up will be to be chastised by physicians, they will let things go and hope someone else catches problems.

“On the other hand, if the governance structure backs them, they become strong advocates for patients.”

Build in accountability
At ALG, the SSEC sets direction, monitors progress, and allocates resources for clinical quality improvement initiatives.

Mahal-van Brenk reports to the committee regularly on clinical quality measures as well as on good catches and any sentinel events.

“This information is all shared with them,” she says. If there are outliers in the metrics, members ask, “Where is our gap? How can we hardwire this process?”

Data for decision making
ALG’s perioperative leadership team monitors a variety of reports and dashboards to track how the department is meeting the system’s metrics for health outcomes, finances, patient satisfaction, and staff and physician satisfaction.

Transparency is essential for the committee to be effective, she notes. “You have to bring the issues to the table. I can say anything in that group, and they can say anything to me. We challenge each other continuously to be better and to do what’s best for the OR.”

—Pat Patterson

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Patterson P. Is your leadership team up to health care reform challenges? OR Manager. 2010;26(6):1,6-7.

Patterson P. Is your OR’s governing structure up to today’s intense demands? OR Manager. 2008;24(7):1,6-7.

In handoffs, talk first about patients needing most time
During shift handoffs, clinicians may not spend enough time talking about the toughest cases, according to a study led by the University of Michigan.

Findings showed clinicians tended to take a lot of time on the early cases and rush at the end, even when those patients might have warranted more time.

Instead, the authors suggest talking first about patients who need the most discussion.

“There isn’t a one-size-fits all remedy except to say that the person handing off should begin by making a judgment of which patients need the most time,” says the lead author, Michael D. Cohen.

Currently, clinicians tend to discuss patients alphabetically or by bed number rather than by severity of illness.

The article was published online November 12, 2012, in Archives of Internal Medicine.
Hospitals share data to prevent colorectal SSIs

Why does our hospital have a higher rate of venous thromboembolism (VTE) than others in our state? How are others preventing surgical site infections (SSIs) after colorectal surgery? What’s behind our urinary tract infection (UTI) rate?

Hospitals in Tennessee are openly discussing issues like these through the Tennessee Surgical Quality Collaborative (TSQC), a 21-member state-level group focused on improving surgical outcomes.

Hospitals can reduce complications

Reducing surgical complications is a high priority as organizations seek to improve care and lower costs. Complications not only cause pain and suffering but increasingly are tied to reimbursement from Medicare and private payers.

The Tennessee project is showing that hospitals can reduce complication rates by sharing data, comparing results, and exchanging ideas on improving care.

TSQC is a partnership of the Tennessee Hospital Association (THA) and the state chapter of the American College of Surgeons (ACS), with funding from the Blue Cross Blue Shield of Tennessee Health Foundation. All participants are enrolled in the ACS National Surgical Quality Improvement Program (ACS NSQIP).

Similar collaboratives are underway in 9 states and at least 7 health systems, according to ACS, with Tennessee and Florida having the largest.

The Tennessee collaborative began in 2007. A report of results from 2009 through 2010 when there were 10 participants showed significant improvements in 5 of 21 types of complications for general and vascular surgery:

- acute renal failure
- graft/prosthesis/flap failure
- ventilator time >48 hours
- superficial SSI
- wound disruption.

Three outcomes got worse: deep vein thrombosis, pneumonia, and UTI. The report was published in the Journal of the American College of Surgeons.

Net costs avoided were estimated at $2.2 million per 10,000 cases. TSQC estimates overall savings of $8 million for that period based on annual volumes.

Though the reasons why the 5 measures improved so dramatically was not readily apparent, one reason might be willingness to share data and compare notes candidly, says Joseph B. Cofer, MD, FACS, head of TSQC and professor of surgery at the University of Tennessee College of Medicine, Chattanooga.

A more recent report, as yet unpublished, shows improvement has been sustained for 4 of 5 outcomes in the initial study.

“‘This has been a gradual process over 5 years,’” he told OR Manager. “‘I think we’re going to see sustained improvement.’

Surgeons are willing to participate because the collaborative uses NSQIP, which is scientifically validated, says Dr Cofer, noting that “when you show surgeons the data, they try to get better.”

Developed by surgeons, NSQIP focuses on 30-day outcomes and uses data from patients’ charts, not claims. The data is risk-adjusted, case-mix adjusted, and audited.

The collaborative’s funding supports about half of a hospital’s $120,000 annual cost for joining NSQIP. That includes membership plus a full-time surgical clinical reviewer (SCR), a requirement. The reviewer collects data on 40 surgical cases in an 8-day cycle and enters it in the NSQIP database. Each hospital must also appoint an engaged surgeon champion.

Digging into data

The TSQC hospitals meet quarterly and share data in a blinded fashion. Though initial meetings were tentative, Dr Cofer says trust has developed.

“The members dig into the data and openly share with each other where the opportunities are,” adds Chris Clarke, BSN, RN, THA’s senior vice president of clinical services, who manages the project.

A participant might say, for example, “Our infection rate was high last year. What do you think we should be doing?”

Or a report might show Hospitals B and G have the lowest UTI rates. They volunteer to discuss their prevention efforts.

A colorectal SSI bundle

TSQC hospitals have agreed to trial a bundle of interventions for...
Patient safety

Making a difference in care using NSQIP data

Hospitals that participate in the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) get validated, risk-adjusted data on 30-day outcomes for surgical patients.

But how do you involve frontline staff so the data can make a difference in patient care?

At Baptist Memorial Hospital-Memphis, NSQIP data is shared with surgeons and nurses who are engaged in continuously improving care. The hospital is a member of the Tennessee Surgical Quality Collaborative (TSQC) (related article).

An example is the collaborative’s colon bundle for preventing surgical site infections (SSIs). At Baptist Memorial, the bundle’s interventions are posted above the scrub sinks where surgeons and staff can review it.

Here are steps the hospital is taking to implement the bundle’s 4 interventions.

**Maintaining normothermia**

**Goal:** Maintain temperature for colon surgery patients to be at least 36°C during the procedure.

All patients are prewarmed prior to surgery regardless of temperature using a warming gown (Bair Paws). Forced-air warming devices (Bair Hugger) are used during surgery.

“There is a real focus on normothermia for long procedures and for patients who present with comorbidities,” says Daryl Miller, BS, RN, director of surgical services.

“If nurses see a patient’s temperature is dropping, they can turn up the Bair Hugger,” adds Kay Loyd, BSN, RN, CEN, performance improvement specialist. Some surgeons also use warmed IV fluids.

**Supplemental oxygen**

**Goal:** Administer high-flow oxygen (FiO₂ at 80%) for the first 6 hours postoperatively.

Before this intervention was added to the postop orders, Loyd requested a review by pulmonologists at the request of risk management. Four pulmonologists reviewed it and saw no problem, she says. Anesthesia providers let the surgeons know if a patient is not a good candidate.

**Prophylactic antibiotics**

**Goal:** Select the appropriate antibiotic.

For the colon bundle, as with the SCIP measure, antibiotics are to be given consistently with current guidelines for colorectal surgery. (SCIP is the Surgical Care Improvement Project.)

**Postoperative glucose**

**Goal:** Maintain patients’ blood glucose level <200 mg/dL on the day of surgery (postop day zero).

Patients’ blood glucose is checked in the preoperative area and again in the postanesthesia care unit.

“The nurses know the goal is less than 200,” Loyd says. “If patients are diabetic, they are often checked intraoperatively as well.”

**Making a difference**

An example of how the data is applied is renal failure. Reviewing the results, a multidisciplinary group noticed renal failure outcomes were somewhat elevated. The pharmacist on the committee thought one reason might be the use of nonsteroidal anti-inflammatory agents for postop pain control. Certain of these agents carry a “black box” warning from the Food and Drug Administration.

The physicians were alerted and have become more conscious of NSAID use.

Within 6 months, the incidence of renal failure returned to an acceptable range.

“That was a great example of how a multidisciplinary team works,” she says.

**Sharing with surgeons**

Baptist Memorial’s surgeon champion, Stephen Behrman, MD, FACS, has asked that the NSQIP 30-day outcomes by surgeon be posted in the physicians’ lounge with names blinded. Surgeons can identify their own results by their ID numbers and compare them with peers.

“Dr Behrman can sit down with a surgeon if there’s a problem to see what can be done to improve their outcomes,” Loyd says.

She thinks the surgeons’ response to NSQIP has been more positive than it is to SCIP. She notes that more patients are audited, and the data is more specific.

“SCIP looks at patients only through postop day 2 or 3,” she says. “NSQIP looks at outcomes at up to 30 days postop. So we are getting a realistic view of how our patients do long term.”

—Pat Patterson
preventing SSIs from colorectal surgery that goes beyond measures in the Surgical Care Improvement Project (SCIP). The interventions are based on information NSQIP provided on SSI prevention.

“We looked at all of the promising practices, not just those that have Level 1 evidence,” Clarke says. “These are things we identified as enhanced opportunities beyond the standard SSI reduction strategies that would be worth trialing.”

The surgeon champions were asked to trial the bundle with their own patients and then to spread it among peers. The SCRs will track compliance.

The bundle includes:

• redosing the antibiotic for surgery lasting more than 3 1/2 hours
• adjusting the antibiotic dose for morbidly obese patients
• tracking patients’ blood glucose levels on the day of surgery regardless of whether they are diabetic
• monitoring patients’ temperatures continuously and keeping them warm throughout the case
• administering supplemental oxygen for 6 hours postoperatively.

“Our data in Tennessee suggests there is a correlation between high blood glucose and SSIs for colorectal surgery,” Clarke notes.

On normothermia, TSQC goes beyond documenting that a warming device was applied to include monitoring patients’ temperatures throughout the case. The reason is that a patient’s temperature can vary before, during, and after surgery, notes Cheri Cole-Jenkins, RNC, MPH, manager of the quality department at 300-bed Parkwest Medical Center in Knoxville, Tennessee, a TSQC participant.

“We’re challenging ourselves to see that the [warming device] is doing what it is intended to do, which is to maintain temperature,” she says.

For the surgical skin prep, most TSQC members already use an alcohol-chlorhexidine gluconate solution, which studies have found is associated with a lower SSI rate than povidone-iodine.

Making a difference for VTEs

Cole-Jenkins says data from TSQC has helped her hospital to highlight areas where it has strong results and other areas where there are challenges.

“We found we were a low outlier—a good thing—for pneumonia, particularly given that our population is fairly high in smoking,” says Cole-Jenkins. She attributes the result to the hospitalist program, an aggressive pulmonary group, and strong respiratory therapists.

With VTE, however, they found challenges. “Having the hard evidence [from TSQC] enabled us to recognize we were out of line with the rest of the participants. We were doing something significantly different,” she says.

A team led by the surgeon champion, who is chair of the endovascular team, narrowed the problem to peripherally inserted central catheter (PICC) lines.

The VTE rate decreased after 2 steps were taken:

• changing from using 3-lumen to 2-lumen PICC lines, unless there is a specific need
• providing the nursing staff with further education on site selection for PICC lines.

“It is highly motivating when you have data, can apply it, and realize it makes things better for patients,” Cole-Jenkins says.

“This is data, but it’s also people’s lives. The impact of having an SSI is possibly life-altering. Whatever we can do to keep that from happening is what we need to be doing.”

Sharing with surgeons

Some organizations share individual NSQIP data with the surgeons.

Dr Cofer provides individual outcomes data with faculty surgeons twice a year, showing them how they compare with the group with identities blinded.

After reviewing their reports, surgeons may come to him seeking more information. For example, they might want to know why their mortality rate was higher than their peers’ for the same procedure. The SCR can print a report that provides the details.

“We now have data that we didn’t have 5 or 6 years ago, and it’s data we can believe in,” Dr Cofer says.

More about ACS NSQIP is at www.acsnsqip.org.

References


While Kimberley Murray, MS, RN, CNOR, administrator for the orthopedic and spine service line at St Joseph’s Hospital (SJH) in Syracuse, New York, set up a successful system for negotiating with orthopedic vendors on total hip and knee replacement surgery, she knew that spine implants would be the next mountain she needed to climb.

But putting a similar system in place required more than simply transferring an existing process because spine implant options are, as Murray says, “much more complex” than those for joint implants. In addition, both neurosurgery and orthopedic surgeons perform spine surgery, so she knew strategies different from those used with joint implants would be needed.

The goal was to control spine implant costs through standardization and managed vendor negotiations. Here is how Murray, working with physicians performing this specialty surgery, was able to meet that goal for SJH, where more than 1,500 spine procedures are performed annually.

The initiative resulted in a cost reduction of more than $500,000.

A lucky break
Murray struggled initially to introduce the spine implant standardization program. The many spine implants available had created a wide range in surgeon preferences. As expected, each surgeon resisted change. Murray struggled to forge collaboration among surgeons who had strong loyalties to vendors.

Then she got lucky.

In 2011, New York State worker’s compensation legislation expired, which meant hospitals no longer received additional payments for expensive implants used in spine fusion.

The expiration “dramatically changed the financial climate of our program,” Murray says. SJH was forced to put a hold on implant surgery for worker’s compensation patients to stop the loss of thousands of dollars from unreimbursed costs.

“That created a downstream effect for the surgeons,” Murray says. They not only had dissatisfied patients waiting a long time for procedures, but the decrease in surgery also took a financial toll.

“It got them to the table and to agree that the only way to continue with a cost-effective program was to rebid implants,” she says.

Preparing the RFP
Although a legislative change helped get the process started, Murray still had much work to do. The spine product standardization committee and the “burning platform” created by the legislative change helped ensure surgeon attendance at discussions. The committee consists of surgeons, the service line administrator, service line purchasing associate, spine OR coordinator, and data analyst, and had the final decision-making authority.

As with the hip and knee implant bidding process, the committee put together a request for proposal (RFP) template for vendors. The spine implant RFP was much more complex than previous ones because each platform had to be defined. For instance, cervical 1 level with and without grafts, lumbar 1 level with and without grafts, and so on.

The RFP went to spinal implant vendors, who were required to provide price quotes only on what was in the RFP. No implant usage numbers were provided, so tiered pricing was not an option.

“We didn’t want to muddy the waters,” says Murray. “We wanted an apples-to-apples comparison.” Rebates were also banned. Vendors “just got one shot” at pricing, she says.

Once bids were received, the spine committee reviewed the RFPs, examining such factors as quality, outcomes, cost, service/vendor support, company reputation, and market share. Costs were benchmarked against The Advisory Board’s Surgery Compass program and information from ECRI Institute. The committee decided to invite 5 vendors to the next stage—a product fair.

Product fair and trial
All the invited vendors attended the fair, held once from 4 to 8 pm. Vendors could only bring products that were part of the RFP.

“We had 100% surgeon participation,” Murray says. Attendees could eat a light dinner and then visit the vendor stations to examine the equipment. The hands-on opportunity was key, Murray notes, because “instrumentation for spine implants dramatically differs from system to system and...
is not as homogenous as joint implant instrumentation.” Attendees also confirmed if the company offered support through a local representative, a major consideration.

“It might have been a great product, but if it didn’t have a local technical representative to support the surgical team, it wouldn’t work for us,” Murray says.

Product trials
After the fair, the spine committee decided that 3 vendors would participate in successive product trials. During each trial, surgeons had to commit to using the same product for the same period of time, unless a surgeon felt a patient’s complexity required a different implant to avoid placing
"N"ot all staff nurses can or want to be managers," says Judith Mercado, RN, CNOR, nursing service director for perioperative and maternal child health services for Kaiser Permanente Los Angeles Medical Center. "Informal leaders stand out; they are the superstars of the group."

Identifying those leaders and mentoring them into the management role is key for successful succession planning. In part 2 of this series, we’ll discuss just how to do that. Part 1 was in the December 2012 OR Manager.

Identify potential leaders
Rose Sherman, EdD, RN, NEA-BC, CNL, FAAN, associate professor at the Christine E. Lynn College of Nursing at Florida Atlantic University in Boca Raton and director of the college’s Nursing Leadership Institute, recommends asking informal leaders if they have considered management roles, saying, “I see you as a leader.”

This plants a seed that can help a staff member grow greater confidence.

Mercado says honesty is important when talking to those who express interest in management.

To leave a staff position and become a manager is scary, she notes, adding, “I answer any questions they have and tell them what to expect.” Nurses may also benefit from shadowing a manager to learn more about the role.

“They gain a whole new appreciation as to what the role is about,” says Sherman, who recommends taking time to identify the “bench strength” of their staff.

What leaders want to avoid is not responding to those interested in management.

Sherman says some participants in the nursing college’s Emerging Nurse Leaders Master’s Program “are having trouble even getting the attention of their leaders to think about things like putting them in charge.”

Tap self-identified leaders
She suggests leaders ask themselves what actions they can take when a nurse self-identifies as a leader. “What opportunities can you provide them?”

Some managers are reluctant to give younger nurses responsibilities because they don’t want to “offend” experienced nurses. But if these younger nurses don’t see opportunity in the organization, Sherman says, they will move elsewhere. That would be a loss. Business research shows candidates who are internally developed and selected stay longer and are more productive.

“Successful organizations recognize the importance of internal development,” she says.

Preparing future leaders
What’s next after you identify a potential leader?

“Succession planning is not just identifying people but also having programs to develop people,” says Lita Tsai, MA, RN, admin-

Managing Partners Coaching Program

This comprehensive program by John Olmstead, MBS, RN, CNOR, FACHE, includes 2 parts.

Part 1: Education (what should be done)
During this 1- to 2-day period, the focus is on one-on-one time, covering the following sections:

- review the description of the manager position
- approach to the manager’s position
- human resources instructions
- day-to-day personal habits of the successful manager.

Part 2: Action (how to do it)
This part takes 30 to 60 minutes per week until goals are reached.

During weekly conferences, the manager is coached on events of the past week and goals for the upcoming week.

The general agenda for the meetings includes:

- Review progress on agreed-upon goals for the week.
- Review incidents that arose during the week.
- Review goals for the week.
- Complete a progress report created between the manager coach and the new manager.

Source: Reprinted with permission from John Olmstead. The complete program is at www.managingpartnersllc.com/Services.html.
Hallmarks of successful succession planning

Ensure organizational commitment
Commitment starts with the board and CEO and continues through the staff. Lisa Tsai, MA, RN, cautions against outsourcing too much of succession planning to a consultant because the consultant will not know the organization as well as internal personnel.

Promote a healthy work environment
“If you have a healthy work environment, more than likely you will be thinking about succession planning because you know how important leadership is,” says Rose Sherman, EdD, RN, NEA-BC, CNL, FAAN. “Look for people who can be authentic in that environment.”

Identify successors early
Tap the successor before a current leader leaves. “Otherwise, you may get a leader by default and not have the best talent for the position,” says Tsai.

Provide education on needed skills
New managers need new skills, such as budgeting. Education can also include attending conferences to see how national leaders function. The American Organization of Nurse Executives has 5 domains of nurse executive competencies that can be helpful in ensuring new managers have the necessary skills. The domains include communication and relationship building, knowledge of health care environment, leadership, professionalism, and business skills.

Use coaches and mentors
“This is very important,” says Tsai, and is congruent to what nurses have always done, such as precepting and leading by example. External mentors can work with a manager through phone calls or meetings.

Partner with human resources
The human resources department has to work with the entire organization and often has limited time to work on succession planning. The department may be particularly helpful in setting up leadership development programs.

Access resources
Resources include The Advisory Board, American Management Academy, and the American Organization of Nurse Executives.

Human resources

Start preparing staff nurses for leadership by having them head projects and committees. Mercado credits unit-based teams that use shared governance with promoting leadership.

Smooth the transition
Smoothing the transition from staff nurse to manager increases the likelihood of success.

“I mentor them and am with them for the first month,” says Mercado. “We’re joined at the hip. They go to every meeting I go to and see every interaction I have. They really learn the role.”

Once the new manager sees how something is done, such as chairing a meeting, Mercado lets him or her take on the new skill with her present as a backup. If all goes well, the manager is ready to fly solo. Mercado also sends staff to leadership programs Kaiser offers.

A coaching program
John Olmstead, MBS, RN, CNOR, FACHE, director of surgical services and emergency department at The Community Hospital in Munster, Indiana, has developed a Managing Partners Coaching Program (sidebar). The program outlines what managers need to know and helps them develop key skills.

In addition to weekly scheduled meetings with his managers, Olmstead says, “I work closely with them the first year.”

He explains the nature of the job and has managers read policies and medical staff rules and regulations. Olmstead also discusses who does what in the department and helps managers learn what they need to know in their new role.

Creating a plan
Succession planning doesn’t stop when the nurse enters the management track. Ongoing training is essential.

Mercado tends to move up nurses from charge nurse to the assistant department administrator position. She notes that her director mentored her for her current position when Mercado was an assistant department administrator.

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**Succession**

*Continued from page 17*

“She would give me opportunities like covering for her on vacation and special projects,” Mercado says. “When it was time for me to move up, I was ready.”

Mercado was recently chosen by Kaiser for “Leadership 380,” a year-long leadership track that helps managers learn to become interdependent leaders.

**Be creative with senior nurses**

Olmstead says managers need to be creative with nurses who have “topped out” in their current positions, even if that means having them move to a position outside the OR. For example, an OR nurse educator who has excellent skills in quality management sees there isn’t opportunity for her to grow because of low turnover.

The manager might try to find the nurse a position in the quality department. Although the OR would “lose” this nurse, he or she would stay with the hospital and be more satisfied.

He emphasizes that managers at all levels need to be part of succession planning. For instance, a nurse he recently promoted to a cardiac surgery team is already looking for someone to be her apprentice. An assistant manager is working on identifying a nurse to fill her role when she retires.

**Worth the effort**

The good news is that succession planning benefits leaders too. “Mentoring staff into a management role is meaningful to me,” says Mercado. “I had the same opportunity for mentorship, and I like giving it back to others.”

—*Cynthia Saver, MS, RN*

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**Spinal implants**

*Continued from page 15*

him or her at risk with an unfamiliar product. Each vendor provided staff and surgeon training before the trial. Murray says the trials took a few months because “we wanted to make sure every physician could use the product on cervical and lumbar cases” and other patients.

**Final decision and follow up**

After the trials, the spine committee decided on a primary and secondary vendor.

“We notified them, made appropriate arrangements for the transition, and picked a start date [summer 2011],” says Murray. The vendor commitment is for 2 years, and vendors have to agree to honor the same pricing in case of new platforms.

After the program starts, Murray says it’s important to have flexibility. For example, a large group of spine surgeons moved to SJH and wanted to continue using the same vendor’s products they had previously—not one of the 2 vendors chosen during the bidding process. Because the vendor was able to supply competitive pricing, it was added to the approved vendor list.

Later, the secondary vendor withdrew because the surgeons were not using the company’s products consistently though it had a large investment of instrumentation tied up in SJH. Another vendor was added for a current total of 3.

Murray emphasizes that price can’t be the only factor in selecting a vendor.

“You can’t just say a vendor can meet the price and be an approved vendor,” she says. Surgeons and staff must feel comfortable using the product, and the OR must have storage space for the implants and the instrumentation, which is impossible if there are too many systems.

**Standing firm**

“It’s a cliché, but you really have to have the physicians on board to have a successful program,” Murray says.

One challenge is vendor communication.

“There is even a closer relationship between surgeon and vendors for spine implants than there is for joint implants,” she says.

Murray has asked physicians not to meet with vendors separately. Although not all adhere to this request, there are far fewer meetings before and after the “real meeting” than occurred before the request.

Murray adds that everyone at the hospital who talks with vendors has to stand firm. “You have to make them [vendors] believe you would switch.”

—*Cynthia Saver, MS, RN*

**Reference**

How long can a flexible endoscope be stored before it needs to be reprocessed for use in a patient? Guidelines differ, raising questions about the appropriate storage or “hang time.”

Evidence is limited. What’s the best course? How do accreditation surveyors assess this?

Though infections from GI endoscopes are rare, estimated at about 1 in 1.8 million procedures, contaminated scopes are linked to more health care-associated infection outbreaks than any other medical device, according to the Centers for Disease Control and Prevention.

All of the published incidents of pathogen transmission in GI endoscopy are linked to the failure to follow cleaning and sterilization/disinfection guidelines or defective equipment, notes the 2011 Multisociety Guideline on Reprocessing Flexible GI Endoscopes.

Improper cleaning and reprocessing

In discussing hang time, don’t miss the real reason infections are spread—improper scope cleaning and reprocessing.

The most critical aspect of preventing transmissions is to be sure the whole process is followed correctly, stresses Kathryn Snyder, BSN, MM, RN, CGRN, endoscopy/bronchoscopy/motility manager at the University of Virginia (UVA), Charlottesville.

She offers a few reminders:

• Is your staff up to date on the latest society guidelines and manufacturers’ instructions for endoscopy equipment?
• Are all reprocessing steps followed all of the time?
• Does the organization provide the resources to ensure processes are performed correctly?
• Do endoscopy technicians receive annual training and competency validation?
• Is documentation complete and consistent for endoscope reprocessing throughout your organization?

Guidelines on hang time

Two major guidelines differ in their recommendations on storage for flexible scopes based on the same 3 studies (sidebar, p 20):

• AORN advises reprocessing scopes before use if unused for more than 5 days.
• The Multisociety Guideline from the American Society for Gastrointestinal Endoscopy and Society for Healthcare Epidemiology of America says the issue is unresolved and data is insufficient, adding that reuse within 10 to 14 days of high-level disinfection appears safe.

The Society of Gastroenterology Nurses and Associates (SGNA) standards, revised in 2012, refer to the Multisociety Guideline, saying the issue “warrants further data and research.”

Making an informed choice

In considering hang time, managers need to review the evidence and make an informed decision appropriate to their organization, advises Cindy Taylor, RN, BSN, MSA, RN, CGRN, nurse manager of GI endoscopy/bronchoscopy at Hunter Holmes McGuire VA Medical Center, Richmond, Virginia.

“I don’t think there is a right or wrong answer, as long as there is a rationale to back up the decision that is supported by the literature, the standard of care, and society guidelines,” she says.

“Be sure your policy is attainable,” she adds. “Better to not have a policy than to have one and not follow it.”

Some issues to keep in mind:

• GI endoscopes must be properly cleaned and at a minimum subjected to high-level disinfection (HLD).
• Consult with your physicians and infection prevention experts on the proper process for endoscopes used in immunosuppressed patients or in sterile regions such as the biliary tree, pancreas, or peritoneal space.

Continued on page 20
Studies: Endoscope storage

Contamination after storage
An Australian study that sampled 200 endoscopes before the first case of the day found the overall contamination rate was 15.5%, with a pathogenic contamination rate of 0.5%. The mean time between the last case on one day and reprocessing before the first case on the next day was 37.6 hours (median 18.8 hours).

The most frequently identified organism was coagulase-negative Staphylococcus, an environmental nonpathogenic organism.


Testing reprocessed scopes
A study tested 3 types of GI scopes (upper endoscopes, duodenoscopes, and colonoscopes) that had been reprocessed and stored in dust-proof cabinets. Samples were obtained daily for 5 days from the scopes’ surfaces, piston valve openings, and accessory channels. They then were brushed and flushed after 5 days.

All scopes were bacteria free immediately after high level disinfection. In all, 4 of the 135 daily assays were positive, all for skin bacteria cultured from the endoscope surface. All flush-through samples were sterile.


Three-phase study
A 3-phase study evaluated 4 endoscopic retrograde cholangiopancreatography (ERCP) scopes and 3 colonoscopes.
• Phase 1: Scopes were assayed after high-level disinfection and daily for 2 weeks.
• Phase 2: This procedure was repeated to confirm the results.
• Phase 3: Endoscopes were assayed after high-level disinfection and again after 7-day storage.

In phase 1, 6 of 70 assays were positive, all in the first 5 days. No cultures were positive in phase 2. In phase 3, 1 scope had a positive culture but only for Staphylococcus epidermidis, a low-virulence skin organism.

The authors conclude that reprocessing is unnecessary after at least 7 days of disuse and possibly up to 2 weeks.


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• If endoscopes are turned over frequently, storage time may not be an issue.
• Keep in mind that in the studies of storage time, the types of organisms cultured from endoscopes after storage were primarily nonpathogenic skin bacteria.

The VA’s policy
The Veterans Health Administration currently follows a directive to reprocess unused scopes after 12 days of hang time, Taylor notes.

The hang time is documented:
• using a printout from the reprocessing machine
• keeping the printout in a plastic sleeve attached to the scope by a beaded chain
• scanning reprocessing information into each patient’s medical record, including the HLD parameters, date reprocessed, person who reprocessed the scope, and the reprocessing machine number.

Immediately prior to the scope’s use, the plastic sleeve is removed, and the reprocessing information is verified by a nurse or technician.

“This has become part of our time-out before the procedure,” says Taylor.

Practice at UVA
UVA is considering adopting a 2-week storage time for flexible scopes, says Snyder. Storage time will be tracked by:
• using a standardized form to document the data and time endoscopes were reprocessed and kept on file for 3 years
• tagging each scope with the date and time it was reprocessed
• removing the tag just prior to the scope’s insertion in the next patient.

“The idea is that you never use a scope without taking the tag off,” she says. “And you take the tag off immediately before insertion, not when you are setting up the scope.” That is in case a physician decides to use a different scope at the last minute.

When surveyors visit
A surgeon surveyor from the Joint Commission asked about hang time in a 2010 visit to Taylor’s facility. “He just wanted to know if we had a policy,” she says.

At UVA, surveyors did not ask about hang time during recent inspections by the Joint Commission.

Continued on page 23
How healthy is your value analysis process? A strong program for evaluating products and new technology is essential to the cost-effective management of resources. Characteristics of a good value analysis program are offered by Barbara Strain, MA, past president of the Association of Healthcare Value Analysis Professionals. She is director of supply chain analytics for the University of Virginia (UVA) Health System in Charlottesville.

She stresses that a value analysis team isn’t just the name of a committee but a strategic, goal-oriented process. At UVA, value analysis has saved over $25 million over its 4-year history.

Strain outlined both high-level characteristics and specific elements of a successful program. “Anyone can apply these principles, no matter how small or large your organization,” she says.

**High-level characteristics**

These are traits of a strong value analysis program at the organizational level.

**A strategic objective**

Value analysis is a strategic objective of the organization.

It isn’t left solely to the chair of the value analysis team, who may be a middle manager.

“You can get low-hanging fruit with that approach,” Strain says. But a more robust process requires a strategic focus.

**Goal-oriented**

The program has specific goals. For example, at the beginning of the fiscal year, leaders set goals for the value analysis program that are achievable and monitored throughout the year.

**Organizationwide focus**

The program is inclusive and organizationwide rather than isolated in specific departments, such as surgery, nursing, or radiology. It is a multidisciplinary effort involving the administration, physicians, clinicians, and other staff.

**Process-focused**

Everyone in the organization knows how to enter the process and use the steps required for a product to be considered for purchase. Easy-to-use guidelines and forms are available on the organization’s intranet.

“If you want people to participate, it has to be easy,” Strain says.

**Culture-infused**

The value analysis process becomes embedded in the organization’s culture within the first 18 months. It becomes the way of doing business.

**Team-centric**

Value analysis is team centric. Whether the organization has a single value analysis team or ten, there is a structure so participants feel they all have a stake in the process and are pulling together.

**Outcome-driven**

Patients are at the center of value analysis, and the program is focused on clinical and quality outcomes. Savings follow from that. “It becomes an efficient and economical way to do business,” Strain says.

**Key elements**

Specific elements of an effective value analysis process include:

**Executive leadership and support**

Executive leaders are out front, saying, “This is how we are going to operate, and everyone needs to participate. We feel this is in our patients’ and institution’s best interest.”

Support is provided whenever there is pushback or the process is questioned.

**Steering committee**

A steering committee of stakeholders, such as the COO, chief of supply chain, and physicians, makes sure goals are set and monitors progress toward the goals.

**Team guidelines**

There are guidelines for the team structure and how teams conduct business, including leadership, membership, and ground rules for evaluating products.

Specific value analysis teams are often designated for areas with the largest supply spend, such as the OR, cardiology, and radiology. These efforts are coordinated so products to be used by multiple units are evaluated jointly by relevant service lines. An example is a device that is inserted in the OR but that must be dressed, removed, or calibrated on the nursing unit.

A well-supported in-service program goes arm in arm with new product introduction so all clinicians learn how to use products correctly.

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Physician involvement
Physicians are involved with value analysis, with specific roles determined by each organization’s culture.

“This is where your executive leadership comes in, to help appoint and nurture surgeons to be on board with the entire program,” Strain says.

At UVA, an academic medical center, the surgical services administration, supply chain, and executive leadership have strong relationships with the chairs of the surgical departments, who in turn communicate with their faculty.

Analytics
Tools are available to assist value analysis teams in their work. There is adequate support for research and data analysis.

Examples are analytics for prioritizing projects, negotiating contracts, determining potential savings, forecasting reimbursement, benchmarking, and monitoring the utilization and effectiveness of products.

Analysis of potential savings
A standardized process guides the analysis of a product’s potential impact and savings. Examples of considerations are:

- patient safety
- impact on clinical processes
- ease of use
- ease of conversion
- logistics of product deployment.

The analysis includes more than direct costs. Perhaps a product would lead to a change in the clinical process that would cost more money. Conversely, a product might cost more than the current product but enable you to eliminate other products or make your processes more efficient.

Product trials
Guidelines are spelled out for product trials. The process is closely monitored, and results are documented. These are some UVA’s guidelines:

- Before committing to a full-fledged trial, the team may conduct a limited value analysis review to get a preliminary sense of the product’s potential clinical and financial impact.
- A trial is conducted for a specific number of cases or a specific time frame. The terms of the trial are documented contractually with the company, even if just in a purchase order.
- Clinicians’ feedback is gathered using a structured, paper-based feedback tool, and results are documented. That way, no one can say later, “I never agreed with that.”

Says Strain, “We get good participation in trials in the OR, and often have feedback from 100 to 200 individuals on an evaluation.”

Structured decision making
Product decisions follow a structured process.

“You need to decide early in the process how decisions will be made,” says Strain. “That helps to take out the emotion or favoritism and makes it a level playing field.”

UVA uses a tool that assigns points in categories including:

- Clinical outcomes: Published evidence and impact on the clinical process
- Patient safety: Will the product affect length of stay or improve patient outcomes?
- Staff safety: Will the product decrease exposures to workplace hazards or improve clinical practice?
- Supply chain goals and strategic plan: Will the product further goals such as product standardization or replacement?

Depending on the score, the team may determine that the product doesn’t reach the threshold indicating it would add value, more information is needed before a decision can be reached, or the product is valuable and will be added to the formulary.

The score is recorded to provide documentation of the decision.

Active contracting function
An active contracting function is available to obtain the right pricing once a product has been approved by value analysis.

Tight product introduction
The process for bringing in new products is tight to ensure that projected savings from products approved through value analysis are not diluted by other products that make their way into the system without the proper review.

Closing the loop
Once a product is introduced, there are metrics for monitoring whether the project is contributing to the projected outcomes and savings. Did the product do what the company said it would
do? Has the organization saved money, achieved the indicated patient outcome, or gained the revenue the value analysis team said it would? ❖

Resources and tools on value analysis are available to members of the Association of Healthcare Value Analysis Professionals at www.ahvap.org

Value analysis tool
A sample tool for weighting the impact of a new surgical item is in the OR Manager Toolbox at www.ormanager.com

How clean are OR lights?

Overhead OR lights are a potential source of surgical site infections, a pilot study in one hospital finds.

The researchers took culture swabs of the illuminating surface of 2 overhead lights in 5 ambulatory surgery ORs. On random dates, swabs were taken twice in the same day, once before the first case and once after the last case of the day.

Cultures from 3 of the 5 ORs were positive for bacteria, including *Staphylococcus epidermidis*, *Streptococcus viridans*, and *Neisseria mucosa*.

The authors suggest that cleaning personnel don clean gloves and use a clean antiseptic wipe while cleaning lights to prevent cross-contamination from other surfaces. ❖


Pennsylvania facilities cite success factors for preventing wrong surgery

E ducation, audits, leadership, and empowering nurses to “stop the line” are success strategies Pennsylvania facilities have used to introduce best practices for preventing wrong-site surgery, a new survey finds.

Strategies include leadership buy-in from surgery departments and respectful interactions with staff.

More than 30% of responding hospitals and ambulatory surgery centers had implemented 21 potential recommendations developed by the Pennsylvania Patient Safety Authority, which conducted the survey.

Common barriers
Fewer than 20% identified barriers. All could be modified or overcome by education or changes in policy or culture, says John Clarke, MD, the authority’s clinical director.

Among the common barriers were physician behavior and having access to accurate information before the patient arrives in the preoperative holding area. Physician behavior included intimidation and resistance. Information difficulties included delays in paperwork from physician offices and assembling all components of patient charts.

The authority’s program to prevent wrong-site surgery began in 2007 when it was found that the state’s facilities were submitting about 2 1/2 wrong-site surgery reports per week. Since then, wrong-site surgeries in Pennsylvania have decreased by 37% from an average of 19 reports to 12 reports per quarter, the authority reports. ❖

The authority’s best practice principles, tools, and educational information are at www.patientsafetyauthority.org.

Scope storage
Continued from page 20

and Centers for Medicare and Medicaid Services (CMS). But that experience doesn’t necessarily apply to others, Snyder cautions. Surveys vary by state and surveyor. ❖

—Pat Patterson

References


Sarting October 1, 2012, the Centers for Medicare and Medicaid Services (CMS) began requiring quality reports on Medicare claim forms from ambulatory surgery centers (ASCs). From all indications, complications were few, and ASCs already are using the new statistics to gain insight into operational trends.

Ultimately, the self-reports of patient safety measures will be publicly available and used to determine a portion of Medicare payments starting in 2014.

Initial reports indicate ASCs using computerized information systems find adopting the new G codes easier, and while ASC employees are adapting quickly, some Medicare representatives need to be more familiar with the process. (G codes are alphanumeric codes that indicate the presence or absence of an event such as a patient burn.)

Sharing best practices
“So far, things are going well,” reports Jan Allison, RN, CHSP, director of quality and accreditation at Surgical Care Affiliates (SCA) based in Birmingham, Alabama. SCA’s 140 surgery centers are comparing notes on the most efficient ways to implement the program, she adds.

“We have shared best practices, such as communication between billing and administration and even risk management.”

To aid communication and to document compliance, SCA designed a template for a form that is attached to each patient chart, listing the measures with a space for checking off the codes that apply.

“The nurse providing the last level of care [before discharge] fills out the form,” Allison explains. “The administrator or risk manager reviews the form and signs off before sending it on to billing. So, if an event happens, they are assured of being aware for appropriate followup.”

Medicare auditors keeping track
Some ASCs have found that Medicare auditors, especially those from outside contractors, are underreporting compliance with the 50% requirement. This may be because auditors check only paid claims for the presence of G codes, and these may represent only a small proportion of submitted claims.

One facility received an auditor letter citing it for not meeting the requirement.

The letter states in part, “Your facility’s QDC [quality data code] use status is calculated from your Medicare FFS [fee for service] claims from October 1, 2012 to the present (the letter is dated November 12, 2012).” The letter also notes that calculations were based “on the available claims that have been processed,” meaning claims submitted but not yet paid during the last quarter were not counted, and little more than
a month’s worth of paid claims were counted.

“Our reports say we entered a G code event in every case,” the ASC’s billing manager says. “They looked at only a small population.”

Until Medicare provides clarification, ASCs should be aware that auditors may challenge their compliance. The number of paid claims in the early months of the program may not be enough to represent at least half of all claims submitted.

According to the Medicare audit letter, 79% of ASCs have met the minimum reporting requirement of 50% of procedures, and 33% are using G codes on all of their claims.

**Cooperation is key**

Since the quality reporting program was proposed, ASCs and their organizations have been working with CMS and accrediting bodies to iron out questions and implement suggestions.

The latest development is an addendum to version 1.0a of the Ambulatory Surgical Center Quality Reporting Program Specifications Manual. In response to early reports by ASCs that codes were not always recognized by claim systems when Medicare was a secondary payer, the updated version 1.0b extends the reporting date for Medicare secondary payer patients to January 1, 2013.

The October starting date itself was a compromise; CMS originally asked for reports starting January 1, 2012, on 7 quality measures. The agency later changed that requirement to October 1, 2012, for 5 measures, with another 4 to be added later. Under the Medicare outpatient payment rule, failure to meet reporting deadlines for at least 50% of the measures could result in lower reimbursement.

During a video conference in September 2012, Anita Bhatia, PhD, showed ASC managers the new claim form and how to code the various quality measures. Dr. Bhatia is program lead for the CMS ASC quality reporting program.

The data will be made available to the public, she told them, but the format has not yet been determined. It will likely be on a website.

**Reporting timeline**

CMS released a revised timeline for quality reporting, including the delayed start date for secondary payer reports.

The initial 5 measures are patient burn, patient fall, wrong site, hospital transfer, and IV antibiotic timing.

On July 1, 2013, ASCs must begin reporting the sixth measure, use of a safe surgery checklist for all patients, and the seventh, annual procedure volume. However, they must report these measures retroactively; the July report will be for 2012.

Reports for the sixth and seventh measures will be reported on the CMS-sponsored QualityNet web site (www.qualitynet.org).

The eighth measure, vaccination of staff against influenza, will be reported starting October 1, 2014, using the National Health Care Safety Network.

Reports based on procedures performed between October 1 and December 31, 2012, will affect payment updates for 2014.

**CMS quality measure implementation plan**

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<th>Reporting period</th>
<th>Payments affected</th>
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</thead>
<tbody>
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<td>1. Patient burn</td>
<td>Begins October 1, 2012</td>
<td>2014</td>
</tr>
<tr>
<td>2. Patient fall</td>
<td>Begins October 1, 2012</td>
<td>2014</td>
</tr>
<tr>
<td>3. Wrong site, side, patient, procedure, implant</td>
<td>Begins October 1, 2012</td>
<td>2014</td>
</tr>
<tr>
<td>4. Hospital admission/transfer</td>
<td>Begins October 1, 2012</td>
<td>2014</td>
</tr>
<tr>
<td>5. Prophylactic IV antibiotic timing</td>
<td>Begins October 1, 2012</td>
<td>2014</td>
</tr>
<tr>
<td>6. Safe surgery checklist use in 2012</td>
<td>July 1 thru August 15, 2013 (measures use 1/1/12-12/31/12)</td>
<td>2015</td>
</tr>
<tr>
<td>7. 2012 volume of certain procedures</td>
<td>July 1 thru August 15, 2013 (measures use 1/1/12-12/31/12)</td>
<td>2015</td>
</tr>
<tr>
<td>8. Influenza vaccination coverage among health care workers</td>
<td>October 1, 2014 thru March 31, 2015</td>
<td>2016</td>
</tr>
</tbody>
</table>

Source: Courtesy of ASC Association, 2012.
Continued from page 25

The payments will depend on whether an ASC reported using the CMS codes, not on whether the ASC actually complied with the protocols. There are no current requirements for validation of the reports, Dr Bhatia noted.

Training and technology
At Lakeview Surgery Center in West Des Moines, Iowa, electronic medical record software was upgraded to accept the 12 G codes representing all possible alternatives. Then business office and clinical staff received training separately. According to clinical director Rikki Knight, MHA, RN, 100% of the codes have been accepted, and the system has not created extra work.

Discharge nurses are responsible for making the quality reports.

“That seems to be going fine with no problems and has become a part of our routine,” Knight says. “We feel it is simple and causes no extra work on either our business office or clinical staff.”

Shortly after implementation, a hospital transfer occurred, providing a real-time test of the system.

“Everything pulled correctly,” Knight says.

Useful data
Long before the quality reporting program took effect, the ASC division of the national hospital company HCA Healthcare was already collecting clinical data and began planning early for addition of the G codes.

“Because we have so many centers, we’ve been collecting that data and reporting for quite some time,” regional division vice president David Roy says of HCA’s internal quality program.

One thing they have learned is that deep vein thrombosis (DVT) occurs more frequently in the region surrounding Denver than the national average, possibly because of the higher altitude.

“DVT was identified as an issue to work on,” Roy says. “We’re now investigating more deeply.”

Tracking transfers
Baycare Health System in Clearwater, Florida, trained business and clinical staff together. “They already worked together well,” says ambulatory surgery director Nancy Burden, MS, RN, CAPA, CPAN.

As Baycare’s 4 ASCs began recording the quality measures, Burden’s staff noticed an anomaly in the rate of hospital transfers. Using available national data, Burden and her staff compared Baycare’s transfer rate, as reported to CMS, with nationwide rates. “Our facilities have been consistently higher than the rest of the country.”

Further analysis revealed the reason: Baycare ASCs are especially likely to examine patients on the day of surgery for any conditions not evident at the time of scheduling.

Any sign of elevated risk is a signal to move the procedure to a hospital. Most of Baycare’s transfers turned out to occur before rather than after surgery and to be precautionary rather than due to complications.

“Such a precaution is good for the patient,” Burden says.

Sharing responsibility
Orthopaedic Surgery Center in Concord, New Hampshire, assigns OR nurses to document IV antibiotic administration. The postanaesthesia care unit (PACU) nurses are responsible for documenting any other events or hospital transfers.

“To comply with this regulation and to make it easy, I placed a bright green sheet in every patient record,” director Donna Quinn, BSN, MBA, RN, CPAN, CAPA, says. After nurses complete the form, they give it to the director, who uses it to complete a daily form generated by the billing service.

The billing service’s software generates a daily report identifying the Medicare patients, along with a list of G codes. The report completed by the director then provides the information needed to generate the appropriate codes for the Medicare claim.

“It has become part of the routine,” Quinn says. “The staff knows it needs to be done and is being compliant.” She notes, however, that documentation would be easier if all departments had integrated computer systems.

“It may be an easy process for facilities that are completely electronic,” she says, “but being paper and electronic still requires manual intervention.”

—Paula DeJohn
This intensive, interactive workshop is an opportunity for OR business managers to increase their knowledge of OR processes, to develop critical skills to drive effective business practices for surgical services, and to network with colleagues.

The workshop will be led by speakers experienced in managing the business of perioperative services, including an expert in the health care revenue cycle specific to perioperative services, and an OR clinician.

FOCUS OF WORKSHOP

The focus is on developing analytical/critical thinking skills as well as on understanding cost components and overall financial management of the OR. Attendees will have the opportunity to work on projects during small-group breakout sessions to problem-solve and develop strategic planning skills.

Some of the topics to be covered are:
- OR charging methodology
- Vendor management
- Management of the revenue cycle
- Data management for decision making
- Operational efficiencies
- Value analysis process
- Role of the business manager

TARGET AUDIENCE

Participants will include business managers involved in the business decisions that drive the OR’s economic, quality, technical, and program development.

Limited to 75 participants, the two-day workshop will open with a welcoming reception on Sunday evening and end Tuesday afternoon.

WORKSHOP FORMAT

The workshop will open with a welcoming reception and introduction of speakers on Sunday, April 7. This will provide an opportunity to register and meet other attendees. A full-day session is planned for Monday, April 8, and a half-day session for Tuesday, April 9.

Registration information will be available soon.

CONTACT

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Education Coordinator
OR Manager
Jdahle@accessintel.com

Registration is NOW OPEN:
http://store.ormanager.com/by-subject-area/or-business/or-business-management-workshop.html
Helping to avoid postdischarge nausea and vomiting

Nausea or vomiting after surgery can cause more distress than the pain, and even with modern anesthetics, it is not as rare as once thought. If the procedure is outpatient, symptoms may arise after the patient is at home, away from medical intervention. Thus, ambulatory surgery centers (ASCs) need to assess each patient’s risk for postdischarge nausea and vomiting (PDNV) and plan for it by administering longer-acting antiemetic medication if needed.

Studies have attempted to identify risk factors for PDNV and found they may be patient-related—female, younger than 50—or procedure-related—laparoscopic rather than open. Recently, researchers at the University of California San Francisco compiled past research and their own new study to create a list of 5 screening questions plus a scoring system to pinpoint the probability of a particular patient experiencing nausea after surgery.

The results, as published in the September 2012 Anesthesiology, showed the overall frequency of PDNV for the 2,170 study subjects was 37%—significantly higher than the expected 20%.

Health hazard
As the research report explains, postsurgery nausea is not only unpleasant but also can be a health hazard and require costly followup treatment.

“Severe nausea can be so draining and debilitating that patients have rated it as more serious than postoperative pain,” lead investigator Christian Apfel, MD, PhD, notes. “Vomiting increases the risk of pulmonary aspiration of gastric contents and suture dehiscence and may even lead to esophageal rupture, subcutaneous emphysema, and bilateral pneumothoraces. In addition, postoperative nausea and vomiting (PONV) can delay patient discharge from the postanesthesia care unit (PACU), and it is a leading cause of unexpected hospital admission after ambulatory surgery.”

One predictor of later nausea or vomiting is having that condition in the PACU. Often, however, a patient may avoid PONV only to suffer PDNV after discharge.

The trigger
As a rule, ambulatory patients should be less susceptible to nausea because the procedures they undergo are less serious and require less exposure to inhaled anesthetics or opioids administered during surgery. But because these patients leave the ASC within 24 hours, those who do suffer postoperative nausea may find it occurring postdischarge.

Robert Langer, MD, an anesthesiologist who specializes in ambulatory surgery and is affiliated with New York Hospital, says patients vary widely in susceptibility. Clinically, he notes, the trigger for nausea and vomiting is located in an area of the brain stem called the chemoreceptor trigger zone (CTZ). As a primitive part of the brain, the CTZ instinctively responds to both sensory input such as taste and to toxins in the body with the same emetic response.

“The brain stem is not very smart,” Dr Langer quips. “It thinks every toxin comes from the stomach and induces vomiting to eliminate it.”

In a 1995 paper, Dr Langer compared alternative treatments and proposed a “routine prophylaxis” of low-dose droperidol (10-20 mcg/Kg) followed by ondansetron for patients receiving a general anesthetic who still experience PONV. Even then, he concluded that targeting susceptible patients would be a better option.

“Although routine prophylaxis would seem appropriate, the choice of antiemetic agents is wide, and some are too expensive to be cost-effective for routine use.”

One option, ondansetron (Zofran), is currently in short supply, and many ASCs are reporting it unavailable.

Who is most at risk?
In a previous study cited by Dr Apfel and his associates, of 154 patients followed after ambulatory surgery, 35% “were significantly distressed by PDNV.” With more than 60% of surgeries in the US performed on an ambulatory basis, he adds, PDNV warrants closer scrutiny.

For their study, Dr Apfel’s team enrolled 2,170 adults having elective surgery at 12 ASCs and evaluated 1,913 for PDNV. Based on patient self-reports following
discharge, 37% had PDNV, 13% had severe nausea, 12% had vomiting, and 5% had severe vomiting. The researchers were surprised to find postdischarge rates were higher than PACU rates.

They tracked a wide range of patient variables. Procedures represented included breast surgery, cholecystectomy, hernia repair, gynecologic surgery, cystoscopy, prostate surgery, ENT surgery, orthopedic surgery, and general surgery. Surgical techniques were arthroscopic, endoscopic, laparoscopic, or conventional. Several inhalational anesthetics were included as well as opioid analgesics and prophylactic anti-emetics.

Analyzing the experience of their study subjects, Dr Apfel et al identified the following 5 most common independent predictors of PDNV and developed a probability formula giving them the indicated weights:

- female patient: +0.43
- patient younger than 50 years: +0.77
- previous postanesthetic nausea: +0.41
- opioid medication administered in PACU: +0.66

Designing a scorecard

Based on the findings, Dr Apfel has designed a scorecard to determine which patients are at highest and lowest risk for PDNV. To make screening more practical, he assigned a simplified score of 1.0 (which approximates the statistical probabilities) to each predictor (sidebar).

Dr Apfel and his colleagues conducted a small survey of 257 patients to validate the new checklist. While the sample was too small for the results to be statistically significant, it closely followed the pattern of the larger group.

Weighing the odds

What does this mean for ASCs and their patients? Screening becomes an important economic as well as clinical issue.

Dr Langer estimates PONV can delay discharge by 47 to 61 minutes. Adding to the cost of staff and medications for treatment, there is an opportunity cost when other procedures must be delayed to deal with the PONV. Based on 1995 average ASC volumes and revenue, he estimates an average annual loss of $253,000 to $1.5 million.

“Clearly,” he concludes, “PONV has a significant impact on revenues, and a cost-effective method of addressing the problem needs to be found.” A hospital admission necessitated by PDNV is even more serious.

Dr Apfel does not recommend a specific protocol for preventive medications or taking other steps to avoid PDNV. He concludes further study is needed to identify the best prophylactic anti-emetics and optimal dosage. The scorecard, however, will at least alert clinicians to which patients may need some form of additional treatment.

❖

—Paula DeJohn

References


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Better outcomes with surgical checklist plus team training
Postoperative complications were lower when surgical teams used a standardized surgical checklist and had undergone team training, a study finds.

Adverse event rates were significantly reduced from 24% in controls, to 16% in cases with team training only, to 8% in cases with checklists plus team training.

The authors say this is the first study to look at how team training can help teams using a checklist. The AORN Comprehensive Surgical Checklist was used for the study.


Many surgical complications occur after discharge
A study finds 16.7% of general surgery patients had a complication, and 41.5% of complications occurred after patients went home.

Among findings:
• Surgical site complications, infections, and thromboembolic events were the most common postdischarge complications.
• An inpatient complication doubled the likelihood of a postdischarge complication.
• Patients with postdischarge complications had a more than 4 times higher rate of reoperation and 3 times higher rate of death.


Hospital noises disrupt sleep, slow recovery
Alarms, conversations, phones, ice machines, outside traffic, and helicopters disrupt sleep and slow recovery, finds a study.

For the study, 12 healthy volunteers were exposed to recorded hospital sounds for 2 nights as they slept in a hospital lab.

The volunteers were more easily awakened by alarms than by voices. Ice machines and even laundry carts at a volume close to a whisper also woke them.

The brain is trained to pay attention to alarms and does not stop working at night, the lead author told USA Today.


Better protection for kidney donors
The Organ Procurement and Transplantation Network and United Network for Organ Sharing approved policies in November 2012 to address concerns about living kidney donors.

The policies create greater consistency in:
• evaluating living kidney donors’ suitability
• informing donors of risks during and after surgery
• following up with donors for 2 years

Each transplant program will need to report donor status and clinical information for at least 80% of donors and test results of kidney function for at least 70% who donate after December 31, 2014.

—www.unos.org

Hospital-assembled kits won’t be taxed
The IRS has clarified that the medical device tax will not apply to custom procedure kits that hospitals assemble for use in their own facility.

The 2.3% device tax, effective January 1, 2013, applies to many medical devices. The intent of the tax is to help fund health care reform. The device industry is seeking repeal.

—www.irs.gov/uac/Newsroom/Medical-Device-Excise-Tax