The dawn of hospital pay for quality has arrived. Hospitals have been reporting Surgical Care Improvement Project (SCIP) measures and other quality measures to Medicare for public display. Now starting in fiscal year 2013, how well they perform on 7 of the SCIP measures and 18 other measures will determine in part how much they are paid by Medicare.

In a proposal for value-based purchasing issued January 7, 2011, the Centers for Medicare and Medicaid Services (CMS) asked for comment on its plans to start tying Medicare DRG payments to hospital scores on 25 quality measures. Comments are due March 8.

The Joint Commission is also raising the stakes on quality reporting. In January, the commission announced its plans to tie scores on core measures, including SCIP, to hospital accreditation (related article, page 6).

Under the CMS proposal for FY2013, which starts October 1, 2012, DRG reimbursement will be tied to:

- 17 clinical measures, including 7 SCIP measures
- 8 patient experience measures

Continued on page 7
FOR₁mula for Success
Integration, documentation and communication delivering enhanced safety, efficiency and innovation.

Synergy in Operation
Editorial

It’s being called a game changer. Hospital pay for quality from Medicare takes effect next year. Medicare plans to start measuring hospitals’ performance on July 1, 2011.

After more than 10 years of discussion about linking hospital payments to quality, the day is here. It’s called value-based purchasing. Read more in this month’s lead article.

Starting in fiscal year 2013, hospitals will have their DRG payments reduced by 1% and will have to earn that back either by posting high scores on the measures or earning improvement points. That rises to 2% by FY 2017.

It’s a small amount but a big step.

What’s behind the move?

In last year’s health care reform law, Congress called on Medicare to have value-based purchasing in place by 2013. The goal is to transform Medicare from simply paying claims to rewarding better value and outcomes.

It’s the next step beyond reporting for quality—reporting on the measures to receive a full Medicare payment update, which started in 2004.

The Centers for Medicare and Medicaid Services sees this as an urgent matter, citing at least 2 federal reports showing “tens of thousands of patients do not receive safe care today.”

One report projected that in a single month, 15,000 Medicare patients die as a result of an adverse event, and 1 in 7 is harmed temporarily by an event that happened while they were in the hospital. About a quarter of the events were related to surgery. Nearly half—44%—were considered preventable. The estimated cost to Medicare—$4.4 billion a year. The report by the Health and Human Services Office of Inspector General is available at http://oig.hhs.gov/oei/reports/oei-06-09-00090.pdf.

How will your OR and hospital be affected?

Medicare will be factoring your performance on 7 of the Surgical Care Improvement Project (SCIP) measures, as well as other quality measures, into your DRG payments.

That means all of the work you’ve done to make sure the antibiotic is delivered on time and patients get prevention for deep vein thrombosis (DVT), among other measures, soon will make a difference in your DRG payments.

Success doesn’t start with chart abstraction for measure compliance in the quality department. The key to high scores is when patients arrive for surgery. Will patients get the right antibiotic at the right time, all the time? Will compression sleeves be applied to keep blood clots at bay? If not, what will be done about it?

This isn’t about simply checking a box. It’s about taking steps to make sure each patient gets what the evidence shows is the best possible care today. —Pat Patterson

Correction

In the January 2011 article on preventing retained surgical items, the table on p 20 should have said Medline is the distributor of the ClearCount SmartSponge system. OR Manager regrets the error.
Build a Foundation for OR Performance Improvement

Are you looking to gain insight into your OR operations? OR Manager and McKesson have joined together to bring you the OR Benchmarks® Collaborative (ORBC), a tool specifically designed to help ORs across the country improve performance and create a culture of excellence.

Now more than ever, immediate access to the enterprise intelligence needed to identify trends and provide key performance data is imperative to OR leaders — those charged with the increasing need to improve care and reduce costs.

OR Benchmarks Collaborative is a vendor-neutral healthcare business intelligence solution and operating room benchmarking service provided by McKesson in partnership with OR Manager, Inc.

OR Benchmarks Collaborative offers:
- 20 key performance indicators (KPIs) including start-time, case-duration, prime-time utilization and day of surgery add-ons
- User-customizable dashboards and in-depth reporting
- Web-based technology with no special software or hardware required
- Statistically significant database with 400+ subscribers

Learn how this tool can assist your operating room.

Register today for a free, informational web seminar at http://sites.mckesson.com/orbc/webinars.htm.
Managing Today’s OR Suite

Fall conference includes business managers

O R business managers and others involved in the financial management of perioperative services will find a track specifically for them at the Managing Today’s OR Suite Conference September 28–30, 2011, in Chicago. The OR Business Management Conference is being combined with Managing Today’s OR Suite this year. The track features an all-day seminar on Wednesday, September 28, followed by 4 breakout sessions on Thursday and Friday.

Sessions for business managers include:

Seminar

Physician Alignment: The Financial Engine of the Hospital: Presenter V. Gerard (Jerry) Ippolito will lay the foundation for success as an OR business manager with topics such as financial forecasting, budgeting, and tracking; developing program-specific business plans and proformas; aligning with physician practices; and contract and vendor management.

Breakout sessions

• Capturing Revenue and Taming the Chargemaster: Keith Siddel, an expert on the revenue cycle, covers issues such as OR time charges, recovering costs for equipment, and how Medicare determines implant reimbursement. He is CEO of HRM Consulting, Creede, Colorado.
• Managing Loaner Instruments & Equipment: An OR manager and central processing manager discuss developing a process for processing loaners in a timely manner while meeting the appropriate sterilization standards for patient safety.
• Innovative Approach to Controlling OR Supply Costs: The speakers will describe how their large urban hospital developed a multipronged supply chain strategy, including engaging surgeons, developing a cost model, building a dashboard to track supplies, and designing a report to update preference cards. They will also address strategies for inventory management, with specific tools and lessons from their experience. Their effort reduced on-hand inventory by 20%, reduced waste by 25%, and increased charge capture by 2%, while decreasing supply expenses by $410,000.
• The Interventional Business Manager: The speaker will discuss how to develop the business manager’s role to be more visible and effective with clinical counterparts. Learn to be successful at identifying cost savings and process improvement opportunities while monitoring the pulse of the department’s financial operations.

Other breakouts will also be of interest to business managers.

Combined conference

Now with two conferences in one, Managing Today’s OR Suite will make the most efficient use of your time and travel budget. Admission to sessions for the OR Business Management Conference is included in your registration fee for Managing Today’s OR Suite, so you will have the option to build the ultimate conference experience with sessions covering business management, leadership skills, infection control, greening the OR, purchasing strategies and much more. The combined conference will have the advantages of a more robust educational program and a much larger exhibit.

There will also be a special networking session for business managers.

The conference brochure will be included in the April OR Manager.
By January 2012, the Joint Commission plans to raise the bar on hospital performance by using ORYX core measure data more directly in the survey process.

In the 8 years since the Joint Commission launched ORYX, its performance measurement and improvement initiative, there has really been no penalty for failing to improve the ORYX data. The only way you could earn a requirement for improvement (RFI) was to have not chosen measures properly in the first place or to have failed to submit data on a timely basis.

Now the Joint Commission is stipulating that because some organizations approach 100% performance, why can’t all organizations get to this level?

Feedback invited

The Joint Commission proposed the new requirement January 11, 2011, and invited feedback until February 22, 2011.

The requirement would include performance expectations for the 5 sets of core accountability measures, including the 8 measures for surgical care (sidebar). Hospitals would receive a composite score, a roll-up of the scores on all 5 measure sets. The Joint Commission proposes a target composite score of 85%, saying the majority of hospitals have been able to reach 80%.

For some, a wake-up call

The reasons some organizations fail is usually tied to core measure/ORYX performance being a low priority for management and medical staff leadership. Making “less-than-targeted” performance, an RFI will likely be a wake-up call to these organizations to step up their act.

Patton Healthcare Consulting strongly suggests that organizations still experiencing outliers in their core measure data to investigate the causes of these outliers and implement improvement initiatives quickly. The monthly data you collect now in 2011 and submit quarterly to the Joint Commission will be part of the data that will be displayed and used for analysis in accreditation surveys beginning in January 2012. Also, please be on the lookout for missing data points. We have seen some hospitals with missing data, and that can contribute to a perception of failing to perform as required by the new elements of performance.

Additionally, as of late January 2011, the wording of the Accreditation Participation Requirement (APR) in the accreditation manual had not changed yet to reflect the new expectations. The Joint Commission posted an announcement of this pending change on its website and requested that hospitals provide “feedback and suggestions” about the use of accountability measures in the accreditation process by February 22.

Provide feedback

We strongly suggest that hospitals review these proposed plans and provide feedback to the Joint Commission using this link: www.jointcommission.org/standards_information/field_reviews.aspx?StandardsFieldReviewId=V9u2VQXx2IDXL18OUXWTuCXXiad2wwhBWQUCnIFyxy%3d

I would expect that the revisions to the APR will involve details like the time frames for submitting the Evidence of Standards Compliance (ESC) following an RFI finding along with time frames for expecting the data to improve after submission of the ESC.

—John R. Rosing, MHA, FACHE
Vice President and Principal
Patton Healthcare Consulting
Thiensville, Wisconsin

John Rosing can be reached at 262/242-3631 or johnrosing@pattonhc.com

More information is at www.jointcommission.org/assets/1/6/FR_Performance_Expectations_for_ORYX_Accountability_Measures.pdf
Value-based purchasing FAQs

What is value-based purchasing?
Value-based purchasing is a Medicare program that for the first time will tie hospitals’ Medicare DRG payments to their performance on quality measures. The program applies to acute care hospitals paid under the Inpatient Prospective Payment System, with some exceptions.

The new program, required under the 2010 health care reform act, will provide incentive payments to hospitals beginning in fiscal year 2013, which starts October 1, 2012. A proposed rule was issued January 7, 2011 by the Centers for Medicare and Medicaid Services (CMS).

When does value-based purchasing start?
• The first performance period for FY 2013—during which hospital performance will be evaluated—is July 1, 2011 through March 31, 2012.
• Hospital payments will be adjusted for discharges starting October 1, 2012.

What will the quality measures be?
Proposed quality measures for FY 2013 are:
• 17 clinical process measures, including 7 SCIP measures
• 8 measures on the patient’s experience of care based on the HCAHPS survey.
  The clinical measures would be weighted at 70% and HCAHPS measures at 30%.

Measures to be added
For FY 2014, CMS proposes to add:
• 3 mortality outcome measures: acute myocardial infarction, heart failure, and pneumonia.
• 8 measures for hospital-acquired conditions (HACs):
  — Foreign object retained after surgery
  — Air embolism
  — Blood incompatibility
  — Pressure ulcer Stages 3 and 4
  — Falls and trauma (fracture, dislocation, intracranial injury, crushing injury, burn, electric shock)
  — Vascular catheter-associated infections
  — Catheter-associated urinary tract infection
  — Manifestations of poor glycemic control.
• 9 measures: Agency for Healthcare Research and Quality patient safety indicators, inpatient quality indicators, and composite measures.
  To be included, measures must have been posted on Hospital Compare for at least 1 year.

How will performance be scored and linked to payment?
This is basically what CMS proposes:
• Each hospital would be scored on its achievement and improvement for each measure. Its performance would be based on the higher of the achievement score or improvement score, which compares the hospital’s score during the performance period with its baseline.
• A hospital would be scored from 0-10 for achievement and 0-9 for its improvement on a measure.
• CMS would then calculate a total score for each hospital using a formula.
• The hospital’s total score would be translated into a value-based incentive. CMS proposes to notify each hospital of its FY 2013 estimated incentive payment at least 60 days before October 1, 2012, with notice of the exact amount by about November 1, 2012.

Where can I learn more?
Value-based purchasing

Hospital SCIP data, 2nd quarter 2010

<table>
<thead>
<tr>
<th>Measure Description</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCIP-1: Antibiotic within 1 hr before Incision (2 hrs if vancomycin or quinolone is used)</td>
<td>97.1</td>
</tr>
<tr>
<td>SCIP-2: Received prophylactic antibiotic consistent with recommendations</td>
<td>97.6</td>
</tr>
<tr>
<td>SCIP-3: Prophylactic antibiotic discontinued within 24 hrs of surgery end time (48 hrs for cardiac surgery)</td>
<td>95.5</td>
</tr>
<tr>
<td>SCIP-4: Controlled 6 am postoperative serum glucose-cardiac surgery</td>
<td>93.9</td>
</tr>
<tr>
<td>SCIP-6: Appropriate hair removal</td>
<td>99.6</td>
</tr>
<tr>
<td>SCIP-CARD2: Perioperative period beta-blocker</td>
<td>93.8</td>
</tr>
<tr>
<td>SCIP-VTE1: Recommended VTE prophylaxis ordered during the admission</td>
<td>94.7</td>
</tr>
<tr>
<td>SCIP-VTE2: Received VTE prophylaxis within 24 hrs prior to or after surgery</td>
<td>93.1</td>
</tr>
<tr>
<td>SCIP-9: Urinary catheter removed on postoperative day 1 or day 2</td>
<td>91.2</td>
</tr>
<tr>
<td>SCIP-10: Surgery patients with perioperative temperature management</td>
<td>98.8</td>
</tr>
</tbody>
</table>

Source: Data from Centers for Medicare and Medicaid Services, 2010.

CMS says the plan will be “budget neutral.” That is, the program will be funded by reducing DRG payments to hospitals overall and having them earn that back through their performance scores.

“We value-based purchasing in Medicare is the beginning of a transition away from paying hospitals on the basis of the volume of activity and cost to paying them based on clinical outcomes and patients’ experiences with care,” says Jeffry A. Peters, president of Surgical Directions, Chicago-based consultants.

“The SCIP measures and patient satisfaction are all things hospitals have measured—now it’s going to affect the bottom line.”

Regardless of how health care reform fares in Congress, he says, private payers are already experimenting with similar approaches.

Preparing for value-based purchasing

“Most hospitals are already on board with most of these measures, but now it is a matter of consistency and accountability 24/7,” notes Mary Jane Edwards, MHSA, RN, CNOR, FACHE, specialist leader, Strategy & Operations, Deloitte Consulting, McLean, Virginia. Close collaboration with surgeons, anesthesiologists, and hospital administrators will be important, she adds.

Advice for perioperative directors:

• **Build awareness.** Explain to the Surgical Executive Committee and the staff “that the paradigm has changed,” Peters advises. “We’ve talked about the need to create a safe environment with good outcomes. Now we will be measured by it.

“The hospital’s financial viability is no longer involved just in increasing our surgical volume; now it is also the outcomes of surgery.”

• **Assess for gaps.** With the July 1 evaluation period coming up, “it is a good time to evaluate your hospital,” says Edwards. “These measurements are concrete: prophylactic antibiotics delivered on time, the right antibiotics delivered, and so forth. Where does your hospital stand?”

• **Check your status.** Pay attention to where you are on the measures. Compliance on SCIP measures is already high. “Develop corrective action plans for any measure for which you’re below a national benchmark,” Peters says.

• **Make current scores visible.** Post current performance scores on an internal surgical services dashboard, publish them in the department newsletter, and take other steps to make sure your scores are known to the staff and physicians.

• **Elevate quality as a priority.** “So many ORs focus on turnover time and on-time starts,” says Randy Heiser, MA, president and CEO of Sullivan Healthcare Consulting, Ann Arbor, Michigan. The same emphasis needs to be placed on quality measures, he suggests.

Continued from page 7 and run through March 31, 2012.
Value-based purchasing

“Think of quality as a day-to-day operational metric tied to the individual patient.”

• Give feedback to individual providers. Progressive hospitals Heiser knows of have incorporated the SCIP measures into their perioperative information systems.

“They collect the data, and it is reviewed by the OR Committee. If it looks like they have an issue, the chief of surgery and the medical director speak with the surgeon who has the problem. That is happening within a week to 10 days.

“These are the hospitals that are not going to have a problem with value-based purchasing.”

• Align incentives. Peters recommends aligning hospital and anesthesia group incentives. “You need to incorporate these expectations into the anesthesia agreement,” he says, noting most contracts now include criteria for meeting or exceeding SCIP measures as a condition for the anesthesia group’s continued exclusive relationship with the hospital.

“If your anesthesia group receives a stipend, which 75% of all anesthesia groups nationally receive, you need to tie the stipend to compliance with these measures.”

• Anticipate FY 2014 measures. Most will involve surgical patients, Edwards points out. An example is postoperative pulmonary embolism or deep-vein thrombosis. This is an outcome connected to the SCIP measure for venous thromboembolism (VTE) prophylaxis, she notes. It’s an opportunity to look at the whole process: “First, are you ordering it? Then are you applying it? And then what is the result?”

Among other measures for FY 2014 that involve surgery are retained foreign objects, blood incompatibility, Stage 3 and 4 pressure ulcers, falls and trauma, vascular catheter-associated infections, and catheter-associated urinary tract infection.

Falls and trauma, for example, include injuries that could happen in the OR, such as dislocations, crushing injuries, and burns. A patient’s hand might be crushed between the gurney and OR bed, or a patient might suffer an electrosurgical burn.

“These are all things everyone knows you should address—but there will be dollars attached to these now,” Edwards observes.

Some SCIP measures not included

Several of the current SCIP measures are not proposed to be included in value-based purchasing for FY 2013.

CMS proposes not to include SCIP-Inf-6, appropriate hair removal, saying it is “topped out,” meaning nearly all hospitals have achieved high performance, and there’s not much room to improve. The latest available data shows compliance with SCIP-Inf-6 to be 99.6%.

Also not included would be SCIP-Inf-9 (urinary catheter removed on postoperative day 1 or 2) and SCIP-Inf-10 (surgical patients with perioperative temperature management) because they have not met the requirement that value-based purchasing measures be posted to the Hospital Compare website for at least 1 year prior to the performance period.

CMS proposes to reclassify the surgical infection-related measures, SCIP-Inf-1 through 4, under health care-associated infection (HAI) measures rather than surgical care measures to align with the Health and Human Services Action Plan for Healthcare-Associated Infections.

Looking beyond SCIP

Are SCIP measures the best measures? There is some skepticism.

A study published in 2010 found hospitals’ adherence with individual SCIP infection prevention measures didn’t affect patient outcomes (Stulberg J J, et al. JAMA. 2010;303:2479-2485). But all 6 SCIP infection measures taken together were linked to lower infection rates. The study was based on administrative data, which experts say is not the ideal way to assess outcomes.

CMS says it is already looking beyond SCIP and other process measures and plans to adopt other types of measures “as quickly as possible.” These would include more measures for outcomes, efficiency, and patient experience.

Surgical outcomes measures

The American College of Surgeons (ACS) says it is working with CMS to develop outcome measures based on its National Surgical Quality Improvement Program (NSQIP).

“The SCIP measures are evidence-based process measures, and in that regard, ACS supports them,” Clifford Ko, MD, MS, FACS, professor of surgery at UCLA and director of the ACS Division of Research and Optimal Patient Care, told OR Manager. “But I think we all recognize that the quality movement needs to move forward, either with additional process mea-
Perceptions of turnover times by surgeons and anesthesiologists may be influenced more by a mental model of how team activity influences turnover times than by actual turnover times per se, a new study finds.

Researchers from the State University of New York (SUNY) Upstate, Syracuse, and the University of Iowa, Iowa City, surveyed 78 surgeons, surgery residents, anesthesiologists, and anesthesiology residents at SUNY Upstate University Hospital, asking them to estimate their mean turnover times, incidences of prolonged turnover times, and time of the day with the most prolonged turnovers. Responses were compared with the actual turnover times.

The researchers found that more than 84% of respondents’ estimates of mean turnover times were not within the confidence interval for their actual mean turnovers. When the researchers corrected for each respondent’s actual mean turnover time, surgeons’ estimates were larger than anesthesiologists’ estimates. Those overestimating mean turnover times also overestimated the percentage of turnovers that were prolonged. Higher-volume surgeons and anesthesiologists were just as inaccurate as those who had lower volume.

Perceptions of turnover times were influenced by opinion about team activity during shift change. More than 79% of respondents thought that the time of day with the largest number of prolonged turnovers was at least 2 hours later than actual. Though most prolonged turnovers occurred around noon, 68% of respondents estimated a time overlapping with shift change. Surgeons were more accurate than anesthesiologists.

The researchers concluded that OR managers should not rely on surgeons or anesthesiologists for their expert judgment on turnover times. Also, OR managers should not interpret comments about turnover times as literally referring to the time, but instead as factors perceived as contributing to the time.


Website targets central-line infections

A new website aims to help eliminate central line-associated bloodstream infections (CLABSIs).

The website brings together educational materials, web seminars, and expert guidance on preventing CLABSIs, which cause 30,000 deaths in the US annually.

There is also information on how to insert a central line catheter correctly, conduct infection surveillance, and promote cultural change to prevent these infections.

—http://clabsi.apic.org
OR performance

Scheduling highlights the importance of the scheduling function to the OR. The OR scheduler has become a focus for improving OR efficiency, patient safety, physician relationships, and the business of the OR. Attendees at the 2010 OR Business Management Conference in San Francisco described schedulers as the “the gateway to our business,” “your telephone marketers,” “the face of the OR,” and “the heart of the OR.” Whatever the title, OR managers are seeing the importance of schedulers and scheduling process to growing their surgical volume and improving OR throughput, and they are working to make the position more appealing.

Gateway to business

“We are going in a direction where health care is a business, and I think it’s high time we address it as such,” says Bettina Celifie, RN, director of perioperative services, Alvarado Hospital, San Diego. “The OR scheduler is the ‘gateway to our business,’ and the competition is fierce. We need to reward them for the work they do.”

Celifie has redesigned the scheduler’s job description to incorporate marketing, customer service, and problem-solving skills and has received senior management approval for a 20% increase in salary to match the intensity and importance of the scheduler’s role.

“If we are going to ask for a critical skill set in our schedulers, I believe we have to pay for that,” she says.

Celifie sees the best candidate for OR scheduler as a person with a background in surgery, such as a surgical technologist (ST), who has good computer skills, a customer-friendly personality, and is willing to troubleshoot.

Schedulers make or break your business.

She prefers having the scheduler located at the OR’s front desk because she believes opportunities for troubleshooting, communication, and marketing to surgeons are missed when the scheduler is at a distant location.

Marketing the OR

Speaking at the conference about transforming an OR into a better performer, Jeffry Peters said, “Your schedulers can make or break your business. You need to have the right person in place, and they need to be customer-relations focused, with training if necessary.”

Peters, who is president of Surgical Directions, LLC, a Chicago-based perioperative and anesthesia consulting firm, refers to OR schedulers as “your telephone marketers.” An important part of their job, he says, is to grow case volume. “If schedulers make it easy and comfortable for surgeons’ offices to schedule cases, they are likely to schedule more.” Peters suggested that sales incentives be awarded to schedulers for helping to grow surgical volume. Better performing ORs are considering incentives for all staff, especially schedulers, he says. Examples are free lunch passes, movie passes, and bonuses based on growth in OR volume.

Building relationships

An initiative at North Shore University Hospital in Manhasset, New York, has helped schedulers to increase the surgical volume by informing them of service line volume budgets for the year as well as the volume year-to-date, says Bini Varughese, director of perioperative business operations.

With this information, the schedulers know which service lines are above and below the volume budget and can work collaboratively to get cases booked with the offices.

“Our schedulers are empowered to build relationships with the surgeons’ offices and be the ‘face’ of the OR,” he says.

Heart of the OR

The schedule is the heart of the OR, and the scheduler is what makes it tick, says Patricia Mews, MHA, RN, CNOR, management consultant, Scottsdale, Arizona.

How the scheduler enters cases in the schedule determines many things—staffing, case picking, and equipment availability, among others. If a case is scheduled incorrectly, then the wrong preference card will be picked, leading to an incorrect case setup that could compromise patient safety.

Because the OR scheduler is the first person the surgeon’s office has contact with when scheduling a case, the scheduler’s knowledge of the OR and procedures, marketing skills, and follow-up are what sells an OR. Many surgeons have a choice of facilities and will schedule at the hospital that makes it easiest for them, notes Mews. The scheduler’s job is to make scheduling as easy and streamlined as possible.

In addition to the job description, Mews says schedulers should have defined roles and responsibilities. She also suggests measuring performance annually and holding schedulers accountable to their defined responsibilities. Data is key to tracking the scheduler’s perfor-
4 tips for better scheduling

Standardize nomenclature for all procedures
For example, use the term “Hip, arthroplasty, right” instead of “Right total hip”; “Right hip replacement”; or “Total joint replacement, hip, right.” Some organizations use CPT codes along with the standardized nomenclature in scheduling.

Develop a standard form
Develop a form for surgeons’ offices to fax or send electronically with all pertinent information. Once the case is scheduled, send a confirmation number to the office.

Provide dual monitor screens
Give schedulers 2 computer monitor screens so they can read the electronic fax or e-mail form on one screen while entering information into the OR scheduling system on the other screen.

Communicate with offices
- Provide in-person communication to the surgeons’ offices.
- Hold a lunch or breakfast for all the surgeons’ office schedulers and office managers to review scheduling policies and procedures. Follow up with office visits.

Source: Pat Mews, MHA, RN, CNOR.

Scheduler performance, she notes, and can include monitoring incorrectly scheduled cases or wrong preference cards picked for a case.

With the scheduler’s responsibilities and impact on OR operations, Mews suggests that schedulers be paid at least as much as an administrative assistant.

“If your administrative assistants have a starting pay of $15 an hour with experience, then that’s what schedulers should be paid,” she says. Mews recommends that schedulers be paid $20 an hour after they gain experience and be paid incentives for performance but not for volume.

She prefers to have schedulers located in a quiet office in the OR rather than at another location because she finds the close collaboration with the specialty team leaders and surgeons gives the schedulers a sense of ownership of the process.

“If your schedule is botched up, it’s usually by someone that doesn’t have ownership in the OR,” she says. (Tips for improving scheduling are in the sidebar.)

Target for improving efficiency
Carolina East Health System in New Bern, North Carolina, targeted its schedulers and scheduling process as one aspect of improving the functioning of the OR. The system centralized the 3 OR schedulers to 1 location and revamped the way it schedules OR cases. Requests for case time from physicians’ offices are now made by e-fax rather than telephone.

“The old system had a lot of inefficiencies,” says Robin Schaefer, MSNA, CRNA, director of perioperative services.

Schedulers were doing double the work needed. They were answering the phone, writing down the request for case and time, looking at the schedule for a time allotment, telling the office secretary what time was available, and entering the scheduled case into the system. Now the request for the procedure is faxed from the physician’s office. The scheduler enters the case in the schedule and calls the office to confirm it.

More satisfied surgeons
Another change that has improved OR performance is that most surgeons have a minimum block time of 8 hours rather than 4.5 hours. This change to 8-hour blocks was based on projected utilization evaluated for several months, notes Schaefer. The surgeons who do not have a block had utilization below 65% or do their cases during off hours. Eventually, they also will have an 8-hour block.

Since making the transition from phone calls to e-faxes and from 4.5- to 8-hour blocks, the schedulers and physicians’ offices are more satisfied, and the process is more efficient, says Schaefer. “We are actually doing more cases in fewer rooms. With assigned blocks, we were able to close 1 room a day. Utilization has improved overall for the entire OR.”

Carolina East holds regular “town hall” meetings, luncheons, and breakfasts for the OR schedulers and the physicians’ office staff.

“This puts a face to a name. When you know who you’re talking to on the phone, it makes all the difference,” she says.

Automating scheduling for offices
In 2008, Northwestern Memo-
OR performance

Patient safety and the schedule

Regions Hospital in St Paul, Minnesota, is standardizing its scheduling process through an automated system with the goal of improving patient safety. The scheduling team consists of field schedulers for each service line in the clinics, and 2 main schedulers who oversee the surgery schedule in the hospital.

Lean scheduling

Surgical scheduling was consolidated into 1 location after a Lean process improvement project 2 years ago, says Dana Langness, BSN, MA, RN, senior director of surgical services. “Before this, we were playing telephone tag between the field schedulers and the main schedulers for the 17-room main OR and 7-room surgery center. Now, the field schedulers who are with the patients in the clinics schedule directly into their specialty blocks in the automated system.” If they want to schedule into an open time, they put the cases into a queue and are given times on a first-come, first-served basis.

Because Regions is part of Health Partners, an integrated health system, most of the patients are seen in the hospital’s clinics rather than in surgeons’ offices.

Reducing risk of error

To help standardize scheduling and reduce the possibility of error, the OR is working with each service line to standardize the names of procedures. After this project is complete, all surgeons will be expected to refer to each procedure by the same name, making the work of the schedulers and OR staff easier.

The automated scheduling system is orders-based with 5 critical components: procedure, laterality, diagnosis, implants, and positioning. These are verified from the source documents.

With this standardized process, says Langness, “My vision is that the surgery schedule will be as reliable as the informed consent.”

OR performance

Material Hospital, Chicago, rolled out an automated self-scheduling system in Cerner’s Appointment Book software that has streamlined the scheduling process and increased scheduler and surgeons’ office staff satisfaction. Essentially, the process allows office staff to schedule cases directly into the hospital’s scheduling system, which are then placed into a queue in the system. Once hospital schedulers review the queue and place cases in the ORs, an e-mail is generated automatically to the surgeons’ office staff to confirm that cases have been scheduled.

Before the system was automated, hospital schedulers had a goal to have a case scheduled within 48 hours of receiving the request from the surgeon’s office via fax or e-mail. But 36% of the time this process took longer than 2 days and in some cases up to 4 days. Now that the cases are being directly scheduled by surgeon office schedulers, there are no delays.

Productivity gains

Overall, implementation of the system resulted in significant productivity gains for the hospital scheduling department while increasing patient, staff, and surgeon satisfaction, says Arshia Wajid, Northwestern’s financial analyst for surgical services.

Before, hospital schedulers spent approximately 6 minutes scheduling a single case. Now it takes less than a minute for them to review the queue and schedule the case. Hospital schedulers and physician office staff specified the information they wanted to see in the automated system that would make their jobs easier and turnaround time for scheduling shorter.

Northwestern comprises 3 facilities, 52 ORs, and 6 OR schedulers. With the new automated system, all schedulers have been consolidated to 1 office.

“Surgeons’ office schedulers are very pleased with the new system because it allows them to have real-time viewing access to cases in the hospital scheduling system,” says Wajid. Hospital schedulers like it because it has reduced their workload and allows them to spend time on other tasks.

—Judith M. Mathias, MA, RN

RN’s long hours linked to higher patient mortality

Patient deaths from pneumonia and acute myocardial infarction were significantly more likely in hospitals where nurses reported long work hours, a new study finds. Nurses’ lack of time away from work also was linked to mortality in patients with pneumonia and abdominal aortic aneurysm.

Patient outcomes and staffing information from 71 hospitals in Illinois and North Carolina, plus survey responses of 633 nurses who worked at the hospitals, were included in the study.

There’s no shortage of literature on preventing orthopedic surgical site infections (SSIs). But how do you translate the evidence into practical strategies that are meaningful to clinicians on the front lines?

A new guide aims to help. The Guide to the Prevention of Orthopedic Surgical Site Infections from the Association for Professionals in Infection Control and Epidemiology (APIC) not only covers the evidence but also offers tools teams can use to assess their current situation and plan to address any gaps.

The aim is to bring infection prevention down to earth so every caregiver will think, “What happens to patients under my watch can really make a difference,” says the lead author, Linda Greene, MPS, RN, CIC, director of infection prevention and control at Rochester General Health System, Rochester, New York.

Sequelaes are devastating
Orthopedic surgery is a focus, partly because its sequelae, particularly joint infections, can be devastating. “The incidence of infection is not high, but the associated morbidity can be significant,” notes Greene.

Soon there will be even more incentive to reduce SSIs. In January 2012, hospitals will need to start reporting SSIs for certain procedures to receive their full Medicare DRG reimbursement in 2014. The SSI data will be posted on the public website Hospital Compare. The incentive is part of the health care reform act passed in 2010.

The selected procedures, to be announced later this year, may include an orthopedic procedure such as total hip or knee replacement, Greene says.

The APIC guide, developed in collaboration with AORN, addresses the continuum of surgical care—preoperative, intraoperative, and postoperative—as well as issues such as surveillance. Among tools are an OR observation audit checklist, a sample perioperative care plan for infection prevention, and a guide to analyzing infection events.

Teamwork for prevention
Team collaboration is a theme because of the close correlation between communication and safe care. The guide includes AORN’s Comprehensive Surgical Checklist. Included are infection prevention steps like normothermia, verifying antibiotic prophylaxis, and confirming sterilization indicators.

The checklist is available at www.aorn.org/PracticeResources/ToolKits/CorrectSiteSurgeryToolKit/Comprehensivechecklist.

The guide also stresses patient handoffs as another way to ensure communication about infection prevention measures.

Where are the gaps?
A good place to start reinforcing your program is with a risk assessment, which helps to identify gaps and set priorities for infection prevention. The guide provides a template.

The assessment starts, Greene notes, by pulling together representatives from infection prevention, perioperative nursing, and

Continued on page 20

Risk assessment scenario
This scenario is for the sample risk assessments on pp 20-21.

Joan directs an infection prevention program in a mid-size community teaching hospital. She has collected data on total joint replacement using the CDC’s National Healthcare Safety Network for 2 years.

Last year, 357 total hip replacements and 240 total knee replacements were performed. There were 7 postoperative hip infections and 1 knee infection.

Of the 7 hip infections, pathogens isolated were: 5 methicillin-resistant Staphylococcus aureus (MRSA), 1 coagulase-negative Staphylococcus, and 1 methicillin-sensitive Staphylococcus aureus (MSSA).

The pathogen associated with the 1 knee infection was also MSSA.

Of the 7 hip infections, pathogens isolated were: 5 methicillin-resistant Staphylococcus aureus (MRSA), 1 coagulase-negative Staphylococcus, and 1 methicillin-sensitive Staphylococcus aureus (MSSA).
Bugs won’t know the difference. But Accounting will.

Both meet efficacy requirements set forth by the FDA. Only one is effective at containing costs. According to the makers of ChloraPrep® Patient Preoperative Skin Preparation (2% Chlorhexidine Gluconate [CHG] & 70% Isopropyl Alcohol), their 26 mL applicator costs about $7. The same-sized applicator of 3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation costs about $4. Consider the cost difference that makes over the number of procedures you do in a year. That’s economic impact. To learn more about the surprising differences between surgical patient preps, visit us at www.3M.com/duraprep.

*ChloraPrep solution brochure: “Surgical site infections: the economic impact”
**Data on file
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Surprise: Neither one contains a drop of Povidone-Iodine.

Despite what you may have heard, DuraPrep solution is not povidone-iodine (PVP-I). The active ingredients in 3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation are Isopropyl Alcohol and Iodine Povacrylex. It may be the same color as PVP-I. But that’s where the similarity ends. To learn more about the surprising differences between surgical patient preps, visit us at www.3M.com/duraprep.
Don’t let the applicators fool you. Only one is for painting.

Many ChloraPrep® users may be jeopardizing the effectiveness of the prep by not following the manufacturer’s instructions for use. Only one surgical patient prep is NDA approved by the FDA to be applied in a single, painted coat, with no scrubbing: 3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation. To learn more about the surprising differences between patient preps, visit us at www.3M.com/duraprep.
Before you name a winner, ask who was not invited.

(And why?)

The *New England Journal of Medicine* study didn’t include DuraPrep solution. In a recent study of skin preps, published by the *New England Journal of Medicine*,¹ it was pointed out that a povidone-iodine-based prep didn’t perform as well as a CHG-based prep. What wasn’t pointed out is that 3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation was not included in this study, and its active ingredient is not povidone-iodine. In other words, you can’t draw conclusions about DuraPrep solution from this study. To learn more about the surprising differences between surgical patient preps, visit us at www.3M.com/duraprep.

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Before you standardize on a patient prep, remember this:
AORN, CDC & NQF don’t.

There are good reasons to inventory more than one surgical patient skin prep. Surgical site, patient variables and procedure types demand different performance features. Both ChloraPrep® Patient Preoperative Skin Preparation (2% Chlorhexidine Gluconate [CHG] & 70% Isopropyl Alcohol) and 3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation received NDA approval based on ASTM testing for efficacy set forth by the FDA. Which may be why both are recommended for the reduction of SSI by AORN, CDC and NQF. To learn more about the surprising differences between surgical patient preps, visit us at www.3M.com/duraprep.
**Sample gap analysis - Total hip replacement**

<table>
<thead>
<tr>
<th>Areas/topic</th>
<th>Current status</th>
<th>Goals</th>
<th>Identified gap</th>
<th>Actions</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSIs in hip replacements</td>
<td>7 actual infections versus 3.7 expected (NHSN)</td>
<td>Reduce SSIs in hip replacements by at least 30%</td>
<td>No standing order sets or pathways for discontinuing antibiotics</td>
<td>Incorporate orthopedic prophylactic antibiotic protocols into order sets and pathways</td>
<td>HIGH (rates have doubled since last year)</td>
</tr>
<tr>
<td></td>
<td>SSI Rates twice the mean in the first 2 risk categories</td>
<td>Improve adherence to discontinuing antibiotics within 24 hours to at least 95%</td>
<td>Knowledge deficits by nursing when IV infiltrates or is interrupted during immediate postoperative period</td>
<td>Develop MRSA screening program for orthopedic surgery</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 of the patients required further surgical intervention</td>
<td></td>
<td>MRSA incidence increased from previous year</td>
<td>Engage stakeholders to develop standard prep procedure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No standard protocols for addressing patients who may be colonized with MRSA preoperatively</td>
<td>Incorporate temperature management protocol using active warming, such as forced-air warming, to maintain patient normothermia including prewarming, intraoperative and post-operative warming</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No standard perioperative prep procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No standardized practices for warming patients</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Continued from page 14

the medical staff. The group would ask questions such as, “What are our infection rates? What’s considered best practice? What processes are currently in place, and which are not?” she advises. The identified gaps are organized in written form, which becomes a qualitative risk assessment.

The group might also develop a quantitative risk assessment, which assigns scores to specific criteria and helps in setting priorities for surveillance and prevention. (See examples.)

The Guide to the Prevention of Orthopedic Surgical Site Infections can be downloaded for free at www.apic.org

Quantitative risk assessment

In a quantitative risk assessment, a number is assigned to specific, predetermined criteria.

<table>
<thead>
<tr>
<th>SSIs</th>
<th>Benchmark</th>
<th>High risk</th>
<th>High volume</th>
<th>Potential negative outcome</th>
<th>National initiative</th>
<th>Financial initiative</th>
<th>Risk rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hip replacement</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>14</td>
</tr>
</tbody>
</table>

*Template provided by Shannon Oriola, RN, COHN, CIC, Sharp Metropolitan Medical Center, San Diego.*

Relative risk 0-3

3 = High risk 2 = Moderate risk 1 = Minimal risk 0 = No risk

Score 10 or above = High priority

Using the tool

1. **Benchmark:** Rates of SSIs in hip replacement surgery are above the NHSN mean but not by a statistically significant difference. This was considered a moderate risk. Risk score = 2.

2. **High risk procedure or activity:** Patients who develop SSIs may require removal of the prosthesis. Only 88% of patients have antibiotics discontinued within the recommended 24 hours, and there is a high proportion of MRSA in patients who develop an SSI. This was considered high risk. Risk score = 3.

3. **High volume:** Hip replacements are a high-volume procedure in this organization. It is the third highest volume procedure performed, and therefore was identified as a high risk. Risk score = 3.

4. **Potential negative outcome:** SSIs in hip replacements are associated with increased morbidity, mortality, and length of stay. Five patients last year developed deep or organ space infections requiring surgery. Risk score = 3.

5. **National initiative:** At the time of the risk assessment, there is not a national initiative associated with outcome measures in orthopedic surgery. Risk score = 0.

6. **Financial incentive:** The cases involved an average of 7-10 days increased length of stay and an excess average cost per case of $32,000. Risk score = 3.

Evaluation

Since this procedure is above the 10-point risk priority ranking, it will be part of the annual infection prevention plan. It is important to set goals and expectations as well as strategies for achieving the goals.

Set goals and expectations

- Reduce SSI in total hip replacements by at least 30%.
- Improve adherence to discontinuing antibiotics within 24 hours to at least 95%.

Actions

- Develop MRSA screening program for orthopedic surgery.
- Engage stakeholders to develop standard prep procedure.
- Incorporate orthopedic prophylactic antibiotic protocols into order sets and pathways.

The above risk assessments use National Healthcare Safety Network (NHSN) surveillance criteria. Organizations that do not use NHSN may use overall data collected from surveillance activities. As an alternative, if no surveillance data exists, administrative data may be used to assist in case findings. This data cannot be compared to NHSN means but may be helpful to assist in determining the overall scope of the issues. Likewise, microbiology data may be helpful in determining pathogen frequency and occurrence.
There are many reasons you may want to change how you organize or package an instrument set or the sterilization cycle for a set. Maybe the set weighs more than the 25 pounds recommended for containerized instrument sets. Perhaps the original container has sharp edges that tear the wrappers, and you want to containerize the set. Maybe your facility doesn’t want to use the extended cycle in the device manufacturer’s instructions because the cycle takes too long, requires more cycles to be run, and affects efficiency and output.

Those all may seem like good reasons. But if you make such a change without having validated, Food and Drug Administration-cleared instructions for use (IFUs) from the device or container/packaging manufacturer, you can’t assume the instruments are safe for patient use. That’s because the facility has not validated the change and submitted the data to the FDA in a 510(k) submission. Though your facility may have performed product testing to determine that the contents of a container or other packaging can be processed to a sterility assurance level (SAL) of $10^{-6}$ under the conditions recommended in their IFU. This means there is less than or equal to 1 chance in 1 million that a single viable microorganism is present on a sterilized item.

Depending on the sterilization method, according to AAMI, testing shall be performed with either one-half cycle, fractional cycles, or a cycle based on predetermined increments of critical process parameters such as sterilant concentration, volume of sterilant, or sterilization time.

AAMI provides detailed recommendations for how containment devices are to be selected for testing and how the testing is to be conducted. These recommendations are difficult if not impossible for most health care facilities to carry out. They require, among other things, microbiological chal-

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**Verification, validation: What’s the difference?**

**Comprehensive Guide to Steam Sterilization and Sterility Assurance in Health Care Facilities** from the Association for the Advancement of Medical Instrumentation (AAMI) defines the 2 terms:

**Validation**：“Documented procedure for obtaining, recording, and interpreting the results required to establish that a process will consistently yield product complying with predetermined specifications” (Section 2.129). Validation covers 3 activities: installation qualification, operational qualification, and performance qualification. AAMI also says that validation is performed by the device manufacturer.

**User verification**：“Documented procedures, performed in the user environment, for obtaining, recording, and interpreting the results required to establish that predetermined specifications have been met” (Section 2.128).

**User verification**

User verification is product testing to determine if a health care facility can sterilize a medical device based on the predetermined specifications (eg, packaging, cycle parameters) that the medical device manufacturer provides as a result of its validation testing. Product testing involves placing self-contained biological indicators (BIs) and chemical indicators (CIs) in the most challenging areas of the containment device or other packaging and running a standard load with the sterilization parameters provided in the IFUs.

Not all products need to be tested. Instead, products can be tested by families, usually designated by the manufacturer, such as orthopedic or neurological instruments. In that family, the most challenging product is chosen as the master product for testing. If a new instrument or container set is a greater challenge than the master product previously tested from that family, then product testing needs to be performed.

If a new instrument or container set is not as great a challenge as the previous master product tested, product testing does not need to be performed. Medical device manufacturers can assist in identifying product families and a master product.

**Manufacturer validation**

Manufacturer validation testing is expensive and time-consuming. AAMI’s standard for containment devices (ANSI/AAMI ST77:2006) states that manufacturers shall demonstrate through validation testing that the contents of a container or other packaging can be processed to a sterility assurance level (SAL) of $10^{-6}$ under the conditions recommended in their IFU. This means there is less than or equal to 1 chance in 1 million that a single viable microorganism is present on a sterilized item.

AAMI provides detailed recommendations for how containment devices are to be selected for testing and how the testing is to be conducted. These recommendations are difficult if not impossible for most health care facilities to carry out. They require, among other things, microbiological chal-

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**Sterilization & Infection Control**
The goal is to ensure a safe product.

- resources to maintain contact with the original device manufacturers to ensure you know when design changes are made on devices so you can determine if you need to repeat validation testing.

Why should I care if validation testing was done?

Validation testing is performed by medical device manufacturers, and the results are cleared by the FDA to ensure the product is safe for patient use. Once a device and its up-to-date IFU are in your health care facility, your goal is to ensure the product is safe for patient use. The only way you can do that is by following the manufacturer’s IFU and monitoring the sterilizers according to the recommended practices from ANSI/AAMI.

Because of the differences in the validation testing performed by manufacturers and the verification testing performed by health care facilities, facilities cannot make changes from the original manufacturer’s IFU, such as packaging and cycle parameters, based on the facility’s user verification or product testing.

Do not allow a sales representative, delivery person, or your personnel to make any of the following changes to a manufacturer’s original instrument/container set unless those are addressed in validated FDA-cleared IFU from that manufacturer. If changes are made, the medical devices may no longer be safe for patient use.

Do not:
• remove or add instruments to the set
• remove the set and add it to a generic rigid container
• add the original instruments with container to a generic rigid container
• take instruments from several vendor trays and add them together in a vendor-provided tray or rigid container system to create a new set.

In addition, do not change the original validated wrapping material or change the validated sterilization cycle parameters.

Contact the corporate headquarters of the medical device manufacturer to ensure changes you want to make in packaging or sterilization cycles are validated and FDA-cleared. Patients are depending on you to follow medical device manufacturers’ IFU and provide them with a safe product.

—Martha Young, MS, CSPDT
President, Martha L. Young, LLC providing SAVVY Sterilization Solutions for Healthcare, Woodbury, Minnesota

Martha Young is an independent consultant with long experience in medical device sterilization and disinfection.

References

How do we charge for invasive procedures performed at the bedside? What’s the correct way to bill for patients who stay in the recovery room because of a lack of beds in the ICU? In this column, Keith Siddel, MBA, an expert on health care business operations, responds to questions about these and other mysteries of charging and billing. He is CEO of HRM, Creede, Colorado.

Q: What do we do about charging for invasive procedures performed at the patient’s bedside using OR staff and supplies?

Siddel: A lot of money can be lost or gained in this area. Too often, these procedures are not charged because neither the OR nor the patient care unit has a way to charge for them.

The general rule in charging is that your expenses and revenue must match. Thus, if you send OR staff and/or supplies to the patient unit to perform a procedure, the OR should charge for these because the OR is incurring the expense. You can either charge a flat procedure rate or a minor OR time charge to cover the staff cost.

Q: Is there a standard surgical supply markup?

Siddel: No, there isn’t. Markup schedules are all over the board. Markups do need to be reasonable. If a local reporter asked, “What’s included in your OR charges?” could you defend your charges?

When I ask OR directors what is included in their charges, they generally say their routine supplies and equipment. But you should be able to give me a list. It’s like when you take your car for an oil change, and the garage gives you a list of the items they are charging you for.

How do you determine what the markup should be? For supplies, that’s not a problem because you know the cost. For procedures, you can refer to the APC reimbursement; that is what Medicare considers the cost to be. The APC payment amounts are found in Addendum B to the Hospital Outpatient Payment System regulation (www.cms.gov/HospitalOutpatientPPS/ AU/itemdetail.asp?filterType=none&filterByDID=99&sortByDID=3&sortOrder=descending&itemID=CMS1232221&intNumPerPage=10).

In the addendum, you can look up the CPT code to see what the reimbursement is for that procedure. That will give you a number to which you can apply your standard markup to generate a patient charge.

You can also compare your charges with what other hospitals are charging using the Centers for Medicare and Medicaid Services MEDPAR database, which contains the data from hospital cost reports. You can use the government’s website or purchase the data from vendors, such as the American Hospital Directory (www.ahd.com). Using this subscription service, you can enter a facility name and a CPT or DRG code, and it tells their reimbursement and charges.

With price transparency, more hospitals are putting their charges information on their websites. One example is Baptist Memorial Health Care in Tennessee, which has an online Expense Navigator (www.baptistonline.org/estimates/disclaimer.asp).

Q: How should our OR bill for anesthesia services?

Siddel: As the surgical facility, you are billing for the anesthesia equipment and routine supplies. Your anesthesia billing should start when the anesthesia starts because that’s when you start using the equipment and supplies. That’s different from the anesthesia provider, who usually starts billing when he or she goes to see the patient in the preoperative area.

Similarly, your anesthesia billing stops when the anesthesia stops. That may not match the anesthesiologist’s or CRNA’s time, but it should pretty closely match the OR time.

Q: What about billing for a regional block given in the holding area using the OR’s anesthesia tech and supplies?

Siddel: Again, when the anesthesia starts is when you bill. That doesn’t necessarily match the OR time.

If the patient is having a block in the holding area and having general anesthesia in the OR, you can bill for 2 different types of anesthesia. But be prepared for questions because it looks like you’re double billing even though you are not.
Patient safety

New studies on preventing retained sponges

Two new independent studies examine the performance of technologies for preventing retained sponges.

In the first study, which tested data-matrix-coded sponges (SurgiCount Safety-Sponge System), none of the sponges were retained out of 1.86 million counted over 18 months. The study conducted at the Mayo Clinic Rochester (MCR) in Minnesota was led by Robert R. Cima, MD, MA.

In the SurgiCount system, each sponge or towel has a unique data-matrix tag. Sponges are counted by scanning them into and out from the sterile field, and the system keeps a running ledger of sponges scanned.

In highlights of the findings:
• Before implementation, a retained sponge occurred at MCR an average of every 64 days. During the study, no sponges were retained for 87,404 procedures performed over 18 months using the data-matrix-coded sponges.
• Use of the system did not disrupt workflow or increase case duration. The average time to count a sponge in the same OR during a 4-day learning curve decreased from 11 seconds on day 1 to 5 seconds on day 4, or about the same as counting unmarked sponges.
• Staff satisfaction with the system was acceptable with a high degree of trust in the system.
• The researchers concluded that the data-matrix-coded sponge system “appears to be reliable and effective” and “should be considered as an adjunct to standard OR sponge-counting practices.”

The study was conducted in 3 phases. The first assessed the system’s function, efficiency, and ergonomics. The second phase was performed to validate the prior findings and test product improvements. In phase 3, after review of the previous data, the system was implemented in all 128 OR and procedure rooms on the MCR campus in 2009. Evaluation of use, performance, and staff satisfaction were assessed 1 year after implementation.

Radiofrequency sponges

The second study by Victoria Steelman, PhD, RN, CNOR, FAAN, found a system using sponges embedded with radiofrequency chips (RF Surgical Systems) had 100% sensitivity and specificity in detecting the RF sponges through the torsos of subjects of varying body builds, including the morbidly obese. Of the 210 subjects, about half (101) were morbidly obese. In all, 840 readings were taken with no false-positive or false-negative readings.

References


How do we handle charging for a patient who is held in the postanesthesia care unit (PACU) because there is no ICU bed available?

Siddel: You can bill an inpatient for a room beginning at midnight regardless of where the patient is staying if the patient is receiving inpatient services. Thus, at midnight, you can bill them as an ICU patient. Your finance office needs to set up an internal mechanism to move the costs from the PACU to the ICU. This is consistent with the principle that the cost of a service and the revenue for that service need to match.

If the patient is still in the PACU, we bill them by the hour until the patient goes to the ICU. Is that OK?

Siddel: No. You can’t charge for PACU services unless the patient needs to be in the PACU. You can charge them for the ICU because they are receiving the same level of care. But if the patient doesn’t need to be in the PACU, you would need to stop billing them for the PACU and bill them for the appropriate charge.

One benefit of charging the services to the ICU is that it provides documentation for the administration of the level of staffing actually needed for the ICU.

Have a question on the OR revenue cycle?

Keith Siddel will respond to questions in a regular column. Send your questions to editor@ormanager.com.

You can also reach Siddel at ksiddel@hrmlc.com.
The few ambulatory surgery centers (ASC) that use full electronic medical records (EMR) systems are not only ahead of their colleagues in the ASC industry. They are outpacing most hospitals as well. That does not mean others can safely ignore the trend. Before long, industry experts agree, health care organizations still using paper records will be like people who neglected to purchase digital televisions: left in the dark.

The gap is huge. The Chicago-based Healthcare Information and Management Systems Society (HIMSS), which tracks technology use, reports that as of the end of 2010, only 1% of US hospitals had fully implemented what HIMSS considers a “complete EMR.” Most health care organizations, including surgery centers, as well as vendors, consultants, and government agencies, rely on HIMSS research and analysis regarding technology standards.

Regarding costs, software, training, and implementation would run $45,000 to $50,000, with ongoing software support typically 15% to 20% per year.

**How many have EMRs?**

While virtually all ASCs have some form of computer-based recordkeeping (scheduling and billing, for instance), less than 10% have true EMRs, according to information technology consultant and HIMSS fellow Marion Jenkins, PhD. For medical practices, the adoption rate is higher, but still only about 20%.

Jenkins is CEO of Denver-based QSE Technologies, an information technology (IT) general contractor for computer systems. He says QSE has installed some form of electronic records systems in about 80 surgery centers, but few are complete EMRs.

The Ambulatory Surgical Center Association, Alexandria, Virginia, says it has no information on the number of member ASCs with EMRs.

**Definitions are important**

What, exactly, is an EMR? According to HIMSS, it is a computer-based record of a patient’s clinical conditions and treatment, contained in an electronic file owned by the health care provider (such as an ASC) that creates and maintains it.

HIMSS recognizes 8 levels of adoption that are increasingly comprehensive, ranging from laboratory and radiology reports, through nursing records, medication orders, physician documentation, and finally, the ability to transmit the data to other providers.
In a survey of US hospitals, HIMSS found that in 2010, only 1% had reached level 7, meaning they were able to record, maintain, and transmit clinical data to other organizations; had data warehousing capability; and could maintain data continuity with their emergency and outpatient departments.

In contrast, HIMSS found 49% of hospitals had reached level 3. These hospitals had digital radiology and diagnostic and nursing reports in an electronic system but lacked the other functions, including data sharing and decision support.

**EMR components**

Components of an EMR typically include a clinical database, a list of acceptable medical terms, and real-time processing capability, so users can search for data and input changes and additions.

HIMSS insists EMRs are not to be confused with EHRs, electronic health records.

Though many use the terms interchangeably, these terms describe completely different concepts, notes a HIMSS Analytics white paper issued in 2006.

The EHR, according to HIMSS, is owned by the patient. It includes the EMRs created by various caregivers regardless of location, and these caregivers, as well as the patient, can access and contribute to the record.

“EHRs are reliant on EMRs being in place,” the HIMSS paper states, “and EMRs will never reach their full potential without interoperable EHRs in place.”

Jenkins says true EHRs “generally do not exist yet” except within comprehensive care organizations such as Kaiser Permanente and the Department of Veterans Affairs hospitals. He also makes a distinction between the EHR, which is patient-centric and covers care from various sources, and the Personal Health Record (PHR), which is actually owned by the patient.

**If Domino’s can…**

While QSE has installed IT hardware such as computer servers in many ASCs, selling EMRs has not been easy, Jenkins says: “Most ASCs don’t feel they need them.” One reason, he notes, is that ASCs usually do not have long-term relationships with patients the way primary care physicians do. A patient comes in for a specific operation and then never returns (with some exceptions, such as periodic colonoscopies).

ASCs would rather invest in software to manage the business side, such as patient accounts and billing. They keep clinical records on paper.

Jenkins argues that such a policy is shortsighted for many reasons. “I personally feel that even one-time patient contact justifies an EMR,” he says. “Domino’s [Pizza] has your information from the last time you ordered.” In other words, patients expect to see one-time data entry, not forms to fill out for each visit. Even more critical, ASCs cannot join the inevitable movement toward EHRs if they cannot contribute data from their clinical records.

Besides, eventually the law will catch up with them, Jenkins and other industry observers agree. The American Recovery and Reinvestment Act (ARRA) of 2009 includes a section called Health Information Technology for Economic and Clinical Health Act (HITECH), which provides incentives and penalties designed to encourage hospitals and physicians to use EMRs but does not mention ASCs.

“Most people feel that will change at some point,” Jenkins warns.

**How to select an EMR system**

While a minority of ASCs have EMRs, most others are in the research stage, assessing how EMRs could fit into their long-term strategies. Jenkins urges managers to look first at their current operations and culture.

Some suggested steps:

**Find a clinical champion**

A clinical champion, a nurse or physician, is critical, he says. With a commitment to proceed, the manager can then begin the process of selecting hardware and software, training staff, and ultimately reaping the financial and operational benefits of electronic records.

**Develop an initial vendor list**

Whether the ASC chooses an outside consultant or internal coordinator, it should develop a detailed evaluation process for potential vendors. “Don’t just look at a

Continued on page 28
demo and decide,” he cautions.

The planning committee should compile a list of vendors to consider. The list will be short, Jenkins says, because “fewer than 10” have developed EMR systems for ASCs. Among these are SourceMedical in Wallingford, Connecticut, and Amkai Solutions in Waterbury, Connecticut.

**Evaluate vendor systems**

Develop a checklist based on functionality and use it to evaluate each vendor’s system, Jenkins advises.

“Make each vendor demonstrate how it will address each specialty, such as receiving supplies and tracking costs,” Jenkins says. “Physicians will look for clinical things, such as tracking drug allergies and displaying lab results and presurgery workups.”

Then rank systems in each category and list those with the best average scores.

“Don’t fall in love with the demo,” he repeats, noting that it is easy to be captivated by a skilled presenter and well-designed, colorful screens.

Call in the finalists, based on functionality scores, and discuss the price and implementation timeframe for each.

**Check references**

Jenkins adds a final step, which he says too few managers carry out: checking references. “You’d be surprised at how few people do that. Go to conferences, talk to your colleagues. Don’t just take the names the vendor gives you.”

**Don’t pave the cow path**

The story doesn’t end with the contract award. Even if a consultant is helping with implementation, changing to EMRs will involve the entire ASC organization.

To take advantage of the automation of records, it is necessary to streamline the workflow, Jenkins notes. “Say you have 5 forms, and the patient’s name, address, and other information is repeated on all of them. You could copy them into the electronic system 5 different times on 5 different screens, to match the manual process. That’s a complete waste of time. It’s known as paving over the cow path.”

Instead, he advises, let the system do the work of maintaining background information, to be called up as needed.

When converting to an EMR, he says, most ASCs will leave existing paper records alone: “Most patients won’t come back.” Initiate EMRs only for those who do return and for new patients.

**Don’t neglect training**

Finally, he advises, do not neglect training. “Just because the staff knows Windows, they still need training,” he says. He recommends the “train the trainer” approach, having a vendor representative give several days of intensive training to selected staff members, who will then be trainers to the rest.

At an ASC, conversion to EMRs should take no more than several weeks, according to Jenkins—however, achieving the full benefit and functionality will require months.

Once the staff is used to entering clinical, scheduling, and billing information directly into the EMR templates, it is time to begin reaping the benefits, Jenkins says. “You are ready to really get the value out of the system.”

He recommends working with the vendor to get the best use of system features, and joining user groups. Do not expect to see ROI numbers immediately, he notes. “There have been few objective studies, so it’s hard to prove—but every other industry has long ago adopted this type of technology.”

**The hybrid way**

Harmony Surgery Center in Fort Collins, Colorado, is taking a
“little by little” approach to automating patient records. The multi-specialty facility, which is affiliated with nearby Poudre Valley Health System, has 4 ORs plus procedure rooms and 6 rooms for extended stays. About 50% of the case volume is GI procedures. Currently, Harmony has what is known as a “hybrid” system, in which the GI business and the physician portion of pain management is electronic, while the rest of the pain management and administrative record remain on paper.

CEO Rebecca Craig, RN, CNOR, CASC, CPC-H, says her long-range goal is to unify all records in a single system. Only then will she consider the result to be a true EMR. “If you don’t have one database, I wouldn’t call it an EMR,” Craig says. “That’s why I call ours a hybrid.”

For most GI procedures, physicians compose reports on a computer rather than dictating them. ProVation Medical, a division of Wolters Kluwer Health, provides the clinical template for documentation. Other vendors supply administrative components, all of which can be uploaded to a future EMR.

“An EMR would have one vendor for the entire system,” Craig says. “The other software systems we utilize would interface with the EMR. Now, we use several, and sometimes the interfaces can be challenging.”

Because Harmony performs screening colonoscopies and regular pain management procedures, repeat patients are common. Craig would like to establish EMRs because, she says, “They would give the physicians a better picture of each patient’s procedural history with us.”

**Why it won’t be easy**

Craig has developed a presentation to help other ASCs navigate the long road to EMRs and EHRs. She explained reasons ASCs have been slow to move ahead. One is the cost, which includes both the up-front investment and reduced productivity while the staff learns the new system. ASCs do not even have the financial incentives the ARRA-HITECH law gives other providers.

Another is interfacing. Most ASCs already have billing and other software, but it may not be compatible with EMRs on the market. “Communications between vendor systems are both complex and not standardized,” HIMSS announced in a recent report.

Since usability is the ultimate goal, HIMSS has a checklist for developers and users (sidebar, p 28).

Use of the ProVation software has helped improve efficiency, Craig says, so she expects adoption of a full EMR to provide even greater benefits.

At first, she warns, “there’s a learning curve” to master the skill of typing answers on a laptop. “It adds another dimension for nurses. They not only focus on the patient but have to make sure the computer is working. If you are documenting on paper, nothing on the paper flashes up ‘error.’”

—Paula DeJohn

**References**


**Radial artery not superior to leg vein for CABG**

Use of radial artery grafts compared with saphenous vein grafts for coronary artery bypass grafting (CABG) does not result in greater patency 1 year after surgery, finds a study in the January 12, 2011, *JAMA*.

Arterial grafts are thought to be better conduits than vein grafts for CABG based on experience with internal mammary arteries.

But the researchers found no significant difference between the 2 at 1 week or 1 year after surgery in 733 patients (366 in the radial artery group and 367 in the saphenous vein group).

They also found no significant difference between the 2 groups in the number of heart attacks, strokes, repeat revascularizations, and deaths.

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First QI program to measure surgical outcomes in children

The first surgical quality improvement program for pediatric patients could identify outcomes that can be targeted for QI efforts to prevent complications and save lives, a new study finds.

The study is a phase 1 pilot for the American College of Surgeons National Surgical Quality Improvement Program-Pediatric (ACS NSQIP Peds). Outcomes were collected for nearly 7,300 patients who had surgery between 2008 and 2009 at 4 children’s hospitals.

In findings:
- The overall mortality rate detected was 0.3%, and 3.9% of patients had postoperative complications.
- Complications were 4 times more likely in inpatient vs outpatient procedures.
- Though infectious complications were the predominant outcomes identified, rates varied by specialty and procedure.

The program is based on the ACS NSQIP program for adults, which has been shown to help hospitals prevent 250 to 500 complications and save 12 to 36 lives each per year.

Reference

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**Surgical checklist could cut malpractice claims**

Nearly a third of contributing factors in surgical malpractice claims might have been intercepted by a surgical safety checklist, according to a new study.

Researchers from The Netherlands identified the main reasons for errors in 294 successful insurance claims and compared them with items on the Surgical Patient Safety System (SURPASS) surgical checklist developed by the authors.

They found 29% of the reasons for lawsuits could be linked to a step on the checklist. A total of 40% of deaths and 29% of incidents leading to permanent damage might have been prevented by the checklist.


**Worries grow about abilities of aging physicians**

With one-third of US physicians over 65 and many under increasing financial pressures that make them reluctant to retire, worries are growing about the abilities of aging physicians, according to the Jan 24 New York Times.

Some experts warn there are too few safeguards to protect patients against physicians who should no longer be practicing. Often, action isn’t taken until a state medical board finds it necessary to discipline a physician.

Though 90% to 95% of hospitals are not willing to address the issue in a systematic way, 5% to 10% have begun to draft policies.

One hospital, Driscoll Children’s Hospital, Corpus Christi, Texas, has a policy that states physicians 70 and older up for reappointment must undergo cognitive and physical exams that assess skills specific to their specialty.

—www.nytimes.com

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**Organizations endorse immediate-use sterilization statement**

The Association for Professionals in Infection Control and Epidemiology (APIC) brings to 6 the number of organizations endorsing a new statement on immediate-use sterilization, AORN announces. AORN endorsed the statement in October.

Immediate-use sterilization replaces the term “flash sterilization,” an antiquated term that no longer fully describes steam sterilization cycles now used for items not intended to be stored for later use. The statement outlines principles for the appropriate use of immediate-use sterilization and describes when immediate-use sterilization should not be used.

Endorsing the statement in addition to AORN and APIC are the Association for the Advancement of Medical Instrumentation, the Accreditation Association for Ambulatory Healthcare, the ASC Quality Collaboration, and the International Association of Healthcare Central Service Materiel Management.

—www.aorn.org

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**Nitrous oxide anesthesia increases long-term MI risk**

Patients receiving nitrous oxide anesthesia have a 60% increased risk of myocardial infarction that persists a median of 3.5 years after surgery, finds a study. Nitrous oxide did not significantly increase risk of mortality or stroke, however.

The authors say a large randomized controlled trial is needed to determine the “exact relationship” between nitrous oxide and long-term adverse outcomes.