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Patient safety

Lessons learned provide practical ideas for improving patient safety

First of a series.

Patient safety is a huge priority for surgical suites, as it is for health care in general.

The patient safety movement has brought a host of new terms—human factors engineering, proactive risk assessment, and failure mode and effects analysis, among others. Managers almost feel they need another degree to understand the new vocabulary and methodologies.

How do you get started in patient safety? Are there practical approaches to safety issues?

The National Center for Patient Safety, part of the Department of Veterans Affairs (VA), has discovered that building a safer culture doesn’t have to be an arcane exercise. Over the past several years, even before the Institute of Medicine’s report pushed health care errors into the headlines, the Center has been learning from other industries with a strong track record for safety, such as aviation and nuclear power. Through this effort, the Center has developed a unified patient safety program with participation of 163 VA facilities nationwide, many of which perform surgery.

Many of the lessons can be applied in a practical manner, notes Caryl Lee, RN, MSN, a program manager at the Center, who describes some of them in this article.

Continued on page 9

Hand hygiene

New alcohol-based hand rubs catch on quickly with staff, MDs

Remember how some first shunned the idea of microwave ovens?

It’s too fast, they argued. The food couldn’t possibly be cooked properly. The food will be dry. You need the prolonged cooking of a regular oven for the food to taste right.

Alcohol-based hand rubs are eliciting a similar reaction: It’s too fast. The germs couldn’t possibly be killed properly. Our hands will get too dry from the alcohol. You need the prolonged scrubbing.

With the Centers for Disease Control and Prevention’s (CDC’s) new Guideline for Hand Hygiene in Health-Care Settings, OR managers are taking a serious look at the traditional hand scrub with a brush versus an alcohol-based rub.

Evidence is building

Evidence is building that neither a brush nor a sponge is necessary to reduce bacterial counts on the hands of surgical personnel before surgery when alcohol-based products are used. In fact, the literature shows prolonged scrubbing can be damaging, resulting in the shedding of more microorganisms rather than fewer.

In October 2002, after almost two decades, the CDC updated its hand hygiene recommendations and essen-
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Skytron’s High Performance Lighting Systems significantly reduce Surgeon Eye Fatigue while covering a Greater Range of Working Distances. High Intensity, Cool Illumination without Glare. After all, next to a Surgeon’s Eyes, what other surgical tool could be more important?
Leading the OR is a tough job, one that has gotten tougher over the years. Budgets are tight, and there are staffing shortages to contend with. Physicians are increasingly pressured. New technology appears almost daily.

That’s why we were so impressed with this year’s nominations for OR Manager of the Year. It was the largest group of nominees ever.

The OR Manager of the Year award is given annually at the Managing Today’s OR Suite conference. This year’s winner was Mary Murphy, RN, BSN, CNOR, of Munson Medical Center in Traverse City, Mich. You can read about her in the October OR Manager.

Mary has lots of company. When we read the nominations, we wished we could honor them all.

We decided we’d like to help you get to know them better. So we are starting a series called “Portrait of a leader” to profile some of the nominees.

The first article, featuring Rita Borden, RN, BSN, of Phoenix, starts on p 7.

Just reading the nominating letters sent by VPs, CEOs, physicians, and staff can make your day.

There are the management accomplishments, of course. Some of the achievements the letters described:

• built a career ladder for surgical technologists
• developed a competency-based orientation program
• assured unpredictable demands are met in a big teaching hospital
• coordinated expansion of the operating room suite
• stepped in with physicians to curb abuse.

The extra mile

But it’s the ability to inspire and lead that shines through the strongest. We read about one manager’s ability to “walk a political tightrope” in setting up a new unit.

One physician wrote that the person he was nominating “loves the folks she works with so they in turn love her.”

“Her sense of humor and comical props keep us laughing,” a charge nurse said of her director. “When you go to her office, you might be greeted by a cap-gun slingin’ cowgirl or a fairy princess with a magic wand to make your troubles go away.”

Another wrote of her director’s willingness to go the extra mile—60 miles at 4:30 am to bring fresh Krispy Kreme donuts to her staff.

Turning around an OR

Particularly impressive were letters about managers who turned around troubled departments.

“Morale is great, and turnover has declined markedly,” wrote one CEO about a director who accepted the challenge to come to the hospital even though she knew it was struggling.

A medical director wrote of a director who came in to a hospital where staff morale and competencies were flagging. After a merger, she helped fuse programs and staffs with another nearby hospital where cooperation was nonexistent. Today, the hospitals are integrated and staff float between ORs.

A chairman of the department of surgery wrote of another nominee: “She brought order out of chaos, markedly improved the esprit de corps and morale of those working within our operating room environment, and greatly enhanced the efficiency of the operating room.”

You are in good company, and you can be proud.

—Pat Patterson

OR Manager “super subscription”

Do you prefer your information in an electronic format? OR Manager is offering a new option—the “super subscription.” You can continue to receive the print version of OR Manager every month, plus an early electronic version, which will be available 2 to 3 weeks before your print copy. You will also have access to OR Reports, our monthly review of the latest studies on the OR environment, and regular e-mail bulletins with news you need. The price: $129 a year.

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new long-term study will examine hospitals’ adherence to recommendations for the administration of antibiotic prophylaxis to reduce postoperative infections.

The Joint Commission on Accreditation of Healthcare Organizations will coordinate the 4-year study with the University of Tennessee, Centers for Disease Control and Prevention, and the Society for Healthcare Epidemiology of America.

Funded by the federal Agency for Healthcare Research and Quality, the Trial to Reduce Antibiotic Prophylaxis Errors (TRAPE) will look at 40 hospitals’ use of antibiotics before and after cardiovascular, joint replacement, and hysterectomy surgeries. The 40 hospitals have been identified, and the study will begin early this year.

“The idea is to standardize the process across surgeries.”

“The goal is to come up with general recommendations of best practices from those institutions that do the best job of providing prophylaxis,” the principal investigator, Stephen B. Kntchevsky, PhD, told OR Manager. Some of the recommendations will involve the OR. Others will involve the pharmacy and physicians, says Dr Kntchevsky, who is professor in the Department of Preventive Medicine at the University of Tennessee, Knoxville.

Feedback and assistance

The researchers will first collect baseline data for 6 months beginning in the spring. This will involve about 100 cases, noted Barbara Braun, PhD, of JCAHO’s Division of Research.

Hospitals then will be randomized to an intensive intervention group or a customary feedback group. The customary feedback group will receive feedback on their error rates. The intensive intervention group will receive feedback plus intensive assistance in implementing special practice recommendations.

The researchers will begin by recommending that the staff at study hospitals not call orders for prophylaxis to the nursing units and that they use preprinted orders.

The study hospitals will be given about a year to implement the recommendations. This will be followed by another 6 months of data collection to see if the error rates have changed as a result of the interventions and a comparison of the two groups.

A need to standardize

“The idea is to standardize the process across surgeries,” says Dr Kntchevsky, “It is always a good way to improve quality. If there are a lot of different ways to do things, people get confused and errors can happen.”

He hopes the study will be able to demonstrate that better-performing hospitals already are standardizing their process.

The investigators probably will release their baseline findings in about a year.

“We are not going to show what kind of intervention works for the full period [at that time], but I think ideas about what processes are being used and current error rates are things people should know so they can compare their own institution to this benchmark,” Braun says.

To learn more about the study, contact Barbara Braun at JCAHO at 630/792-5928.

—Judith M. Mathias, RN, MA
Surgeon should mark site, College says

The operating surgeon should be the one to mark the surgical site when a bilateral site is involved, according to a new statement from the American College of Surgeons (ACS).

The statement, approved in October, is intended to be a reference for surgeons and their organizations in developing guidelines for correct site, correct procedure, and correct patient surgery (side-bar).

The statement follows new Patient Safety Goals from the Joint Commission on Accreditation of Healthcare Organizations. One of the goals requires hospitals to:

- create and use a verification process such as a checklist to confirm all necessary documents such as medical records and imaging studies are available preoperatively
- implement a process to mark the surgical site and involve the patient in the process.

Compliance with the goals is expected starting Jan 1.

When the goals were issued in July, JCAHO President Dennis O’Leary said they are a way of putting teeth into patient safety recommendations. Of 1,747 sentinel events JCAHO has reviewed since 1995, 11% were wrong-site surgery.

“We felt the JCAHO statement was perhaps too broad and didn’t address all of the needs,” commented Paul Collicott, MD, FACS, the ACS director of member services.

Asked who should be responsible for making sure the steps in the statement are carried out, Dr Collicott said, “We felt Number 5 was explicit about the operating surgeon marking the site.”

The statement does not specify how the site should be marked but leaves that to each institution.

For the other steps, “obviously, it has to be somebody with responsibility,” he said.

He noted in particular that step 7 states that the surgical team, including surgeon, nurses, and anesthesia personnel, should conduct a final verification process to confirm the correct patient, procedure, and site.

“The statement was published in the December Bulletin of the American College of Surgeons and is posted on the ACS web site at www.facs.org. Look under Statements.”

American College of Surgeons statement on correct site surgery

The American College of Surgeons (ACS) recognizes patient safety as an item of highest priority and strongly urges individual hospitals and health organizations to develop guidelines to ensure correct patient, correct site, and correct procedure surgery. The ACS offers the following guidelines to eliminate wrong site surgery:

1. Verify that the correct patient is being taken to the operating room. This verification can be with the patient or the patient’s designated representative if the patient is under age or unable to answer for him/herself.
2. Verify that the correct procedure is on the operating room schedule.
3. Verify with the patient or the patient’s designated representative the procedure that is expected to be performed, as well as the location of the operation.
4. Confirm the consent form with the patient or the patient’s designated representative.
5. In the case of a bilateral organ, limb, or anatomic site (e.g., hernia), the surgeon and patient should agree and the operating surgeon should mark the site prior to giving the patient narcotics, sedation, or anesthesia.
6. If the patient is scheduled for multiple procedures that will be performed by multiple surgeons, all the items on the checklist must be verified for each procedure that is planned to be performed.
7. Conduct a final verification process with members of the surgical team to confirm the correct patient, procedure, and surgical site.
8. Ensure that all relevant records and imaging studies are in the operating room.
9. If any verification process fails to identify the correct site, all activities should be halted until verification is accurate.
10. In the event of a life or limb-threatening situation, not all of these steps may be followed.

The American College of Surgeons offers this statement for consideration by surgeons and their hospitals and health organizations. It must be reviewed and modified as necessary to conform to the laws of the applicable jurisdiction and the circumstances of the individual hospital and health organization.

Resources on correct site surgery


Association of periOperative Registered Nurses. AORN Position Statement on Correct Site Surgery. www.aorn.org/about/positions/correctsite.htm


Running a surgical suite could be the toughest job in management. As one director says, it means running a multi-million dollar, zero-defect operation with customers who have some of the highest expectations in the world.

Who are the leaders who make it happen? This series profiles some nominees for the 2002 OR Manager of the Year, the largest field ever.

After nearly 25 years as director of surgical services at Sun Health Boswell Hospital in Phoenix, Rita Borden, RN, BSN, took on a new role last spring: executive director of surgical services at both Boswell and Del E. Webb Memorial hospitals.

She oversees 22 ORs, 22 postanesthesia care unit beds, 50 same-day surgery beds, as well as IV therapy, central services, endoscopy, renal dialysis, same-day surgery units, and the Heart Center, which includes the cardiovascular ORs, cardiac cath lab, electrophysiology lab, and cardiovascular ICU.

“The constant challenge we’ve faced over the years is having enough of whatever,” she says. “Something is always off: the number of ORs, patient care beds, surgeons, or anesthesiologists.”

With a concerted effort from nursing leadership, the administration, and physicians, Borden has successfully grappled with most of these issues, while overseeing two OR expansions and taking on new departments.

An anesthesiologist shortage

For example, Boswell, which serves a largely geriatric population in Sun City, Ariz, has been hard hit by the retirement of its physicians. Last summer, a shortage of anesthesiologists also loomed, triggered by Medicare reimbursement shortfalls. To complicate matters, bedside nurse recruitment was tough.

Borden asked the surgery department to confine its elective schedule to 8 am to 5 pm to help prevent anesthesiologist burnout. Cooperation from the surgeons helped avoid gaps in the schedule, as did block booking and other steps Borden instituted to make it easier for surgeons to get their cases on the schedule. The administration brought in contract anesthesiologists and recruited new ones, offering incentives.

Today Boswell is up to a full complement, with 10 anesthesiologists on staff. The chief of anesthesia and medical director of the OR, Richard Rivera, MD, notes that the locum tenens anesthesiologists had worked at numerous institutions and were impressed with Boswell’s OR: “The fact that two of them are joining us permanently is an endorsement of Rita’s management.”

“We do what we need to do to make our facility attractive to physicians,” says Borden. “We try to prevent lost time, keep turnover times minimal, make sure equipment is in good shape, patients are ready to go, and have the paperwork intact.”

Last year, when on-time starts for surgical cases lagged, Borden sent surgeons a memo informing them of an improvement initiative.

“I told them we would improve on-time starts. The nurses and anesthesiologists would take patients to the OR at the time scheduled. The only exception would be if the surgeon called ahead to say he was running late. We had strong support from the chief of surgery and the anesthesiologists, and we made staffing changes so nursing staff had more time to prepare. And it worked. Our attitude is, ‘We can do it, and we will do it.’”

Borden credits her line team leaders for smoothing out kinks and managing costs. Borden created the positions in 1983.

“The line leaders are awesome,” she says. “They take ownership of the cost of their procedures and work with the physicians to reduce frivolous waste. We get performance reports on cost accounts and compare them with peers to see if we meet our targets.” Nearly all leaders have been promoted from within after a lengthy interview process, and Borden knows their values and how they treat peers.

“We appoint people who have people skills. I believe you can’t teach those skills.”

Excelling on retention

Last year only one staff member left Boswell’s OR. The turnover rate for surgical services is 5%, about one third the national average for RNs. Underpinning the hospital’s outstanding retention are a perioperative nurse program and the only surgical technologist (ST) training program in the state, developed by Borden’s staff 3 years ago. The ST program draws from the central service department and has trained six surgical techs to date. Applicants must have 2 years of experience in central processing.

Many years ago, Borden began focusing on teamwork development through social activities such as department golf tournaments, holiday parties, ski trips, and a hiking trip in the fall. “All of these efforts really melded the groups,” she says. The average tenure of the surgical nursing staff is 10 years.

The organization advocates service excellence. “We start every department meeting with a service excellence story,” she says. “There are so many stories, it makes you feel good about the organization. We also have pat-on-the-back cards, which are exchanged for yogurt coupons and can be traded in for movie tickets.

Continued on page 8
Portrait of a leader

Continued from page 7

Our attitude is, ‘We can do it, and we will do it.’

“She helped me understand that my writing style was critical,” recalls Borden. “It helped me focus on how well I could communicate. She was very good at thinking issues through—a great strategist.”

Borden, along with family members, is dedicated to causes, chief among them the Cystic Fibrosis Foundation and the Arthritis Foundation. Her granddaughter, Brittany, who had cystic fibrosis, passed away last spring. A golf tournament organized by one of Borden’s daughters raised $125,000 to build an outdoor stage called Brittany’s Place at the Phoenix Children’s Hospital. Brittany was the president of her junior class and on the state board of thespians.

Borden recently took up the cause of arthritis research, running in a marathon in Dublin, Ireland, to raise funds. In August, she was named a Health Care Hero by The Phoenix Business Journal for her skilled management, but you need go no further than her co-workers to hear her praises.

“Rita’s philosophy is that the person doing the job is the most knowledgeable, so by empowering her staff she has uncovered many ‘gems’ waiting to be developed,” says Patricia A. Sega, RN, director of surgical services.

Gary Tucker, RN, vice president of Patient Care Services, notes that Borden co-chaired the Clinical Intervention Committee to work on cost-effectiveness, with the orthopedic path alone saving $700,000 in 1 year.

Another manager summed up the appreciation from her staff this way: “Rita is our energy.”

—Susan Klann

Susan Klann is a freelance writer in Denver.

Patient safety web site to present cases

A new patient safety web site funded by the federal Agency for Healthcare Research and Quality (AHRQ) will encourage anonymous sharing of case studies so others can learn from them.

WebM&M, an online peer-reviewed journal and forum on safety and quality, will be launched in February. The site is designed to educate providers about safety and medical errors in an engaging, anonymous, and blame-free environment.

The web site will have five main elements:

• Cases of actual medical errors posted in five categories each month: medicine, surgery/anesthesiology, obstetrics and gynecology, pediatrics, and psychiatry.
• Each case will be accompanied by an evidence-based commentary by clinical and safety experts.
• A “spotlight case” with an interactive learning module. An electronic version of the case will be available to download for educational use.
• A users’ forum linked to cases and commentaries.
• Links to patient safety and medical error resources and web sites.

Submit cases for posting

Cases may be submitted for possible posting, and writers will receive an honorarium. Cases will be anonymous to encourage people to share information.

For assistance in writing a case study, contact Patrice Spath at patrice@brownspath.com or visit the site to learn more about types of cases appropriate for posting.

The site is being produced by a team of editors from the University of California San Francisco in collaboration with a web-based company, DoctorQuality.com.

—www.webmm.ahrq.gov

Spinal construct prices moderate

Overall price increases for spinal constructs moderated somewhat from 2001 to 2002.

Price increases ranged from 2.4% to 19.8% in 2002 compared with 8.4% to 11% in the previous year, according to an annual review by Orthopedic Network News.

The largest increase was from Spinal Concepts at 19.8%, followed by Depuy Acromed, Interpore Cross, and Centerpulse, followed by Sofamor Danek. The lowest increases were reported by Stryker Spine, EBI, and Synthes.

Editor Stan Mendenhall calculates increases by comparing prices for constructs such as single-level and two-level hook/rod/screw systems. But he notes comparisons are difficult for several reasons including the combination of companies and the fact that price lists are no longer generated on a predictable basis.

—www.orthopedicnetworknews.com
Creating a culture of safety

What can leaders do to help create a culture of patient safety? Here are ideas from the VA’s National Center for Patient Safety:

- Make a commitment to patient safety at the very top level.
- Make it clear to leaders throughout the organization that patient safety means nothing less than a total cultural change in how health care is approached, delivered, and evaluated.
- Have leaders attend patient safety training and provide top-down support for the program.
- Foster a cohesive team approach to care delivery.
- Instill in each employee that patient safety is paramount.
- Create a climate in which each person feels morally obligated and empowered to address any condition that may affect patient safety.
- Consider having a patient safety officer in each facility. In the VA, patient safety officers act like field extension agents in the Department of Agriculture.

They bring the latest methods and wisdom of their disciplines to assist in building the knowledge and skills of others.

- Create an environment of trust and nonpunitive response to reported events. Under the VA system, nothing reported under the patient safety program and no information gleaned from interviews can be used in a disciplinary or punitive fashion.
- There are separate systems for addressing the performance of employees who consistently do not carry out their responsibilities.
- Protect identities of individuals and facilities who report patient safety issues to keep the trust of employees.

Reference


Learn from human factors engineering

Human factors engineering may sound technical, but it basically refers to how we interact with the people and things in our work environment, notes Lee. Examples are equipment, supplies, medications, sick patients, and colleagues.

The objective is to improve human performance and reduce the likelihood of error and patient injury.

Industries such as aviation and nuclear power have relied on human factors engineering for years to make their processes safer. Among lessons we are learning is how to make better use of methods such as checklists, cognitive aids, and standardization to improve safety. We also are consulting with human factors engineers to learn how to better design workspaces and equipment.

Example: New York Methodist Hospital in Brooklyn, NY, is trying a new technology called Horizon Outlook from B Braun (www.bbraunusa.com) that uses bar-code scanning to make sure patients get the right doses of medications. Nurses can scan a bar-code label attached to IV bags by the hospital pharmacy, make sure the label matches the patient’s ID band, then program an IV pump by simply swiping the labels again. A wireless version with Palm PDAs is set to debut this month. The technology could improve safety because, according to the company, IV pumps account for 35% of medication errors that result in significant harm.

Perform usability testing

Before you purchase new equipment or switch to a new supply, have the front-line staff try out the product. You may find that even the way a product is labeled or packaged can make a difference in how safely it is used.

When products will be bought as part of a group-purchasing contract, ask your materials management department or value analysis committee whether the GPO has consulted with clinicians about the product’s usability and patient safety implications.

Example: If you are purchasing new instrumentation, consult with the central service staff to see if the manufacturer provides clear instructions about how the instrument is to be cleaned and reprocessed.

Learn from flight crews

The Air Force teaches a variety of tools for medical team management borrowed from aviation to help teams communicate more effectively. Two of the tools are:

- “Sterile team environment.” During take offs and landings, flight crews have a rule that they talk only about business. The Air Force adapted this concept to health care.

“There are critical periods when you need to have a ‘business-only attitude,’” explains Lt Col Beth Kohsin, Air Force patient safety program manager. The phrase is a signal to everyone that a procedure is entering a critical phase, and they should talk only about the task at hand. The purpose is to avoid distractions that might lead to errors. An important part of this technique is to have team members communicate about what is distracting to them. Music might be distracting to some, for instance.
Driving out fear

Does your organization have a high-trust or a high-fear culture? Employees and leaders in a high-trust culture are more likely to feel comfortable talking about issues and incidents that may affect patient safety.

Ask yourself if you see behaviors like these that indicate a high-trust organization. Do employees and managers:

- give credit for good work that is done instead of blaming each other?
- take responsibility rather than making excuses?
- openly share information?
- collaborate on important issues?
- speak in terms of “we” rather than “us-and-them” distinctions?
- focus on the common purpose and do not get sidetracked by differences in the details?
- respect organizational structures and roles and do not use them in undermining ways?
- value each other’s backgrounds and experience and do not discredit each other’s competence?
- openly voice concerns, criticisms, and conflicts?
- speak positively about their work, the organization, and the future?


but not to others.

Example: Nurses at a children’s hospital found that when they entered a child’s room, the parents would want to talk to them, and they would want to talk to the parents. That made it difficult when they had to perform a complex process such as administering chemotherapy. They decided to let the families know they would be using the phrase, “We are now in a sterile team environment.” That would be a signal that the nurses weren’t being rude but needed to focus on the task at hand to give safe care to the child.

- “I feel the pinch.” This is another phrase borrowed from aviation for creating situational awareness.

“We define ‘the pinch’ simply as the intuitive feeling that something might not be going right,” says Kohsin.

“It’s that feeling you get that ‘I’m not certain we’re going down the right road.’ It may be the hair standing up on the back of your neck or butterflies in the stomach.”

In the Air Force’s medical team management program, each person is taught he or she is a valuable member of the team and has a responsibility to speak up. Likewise, everyone on the team has a responsibility to listen to the other members.

This technique can be challenging to teach in a situation like surgery where team members have a range of status, education, and experience.

“It’s all part of leadership at the team level,” says Kohsin. The Air Force teaches that every team member is there for a reason and, regardless of job or rank, has a role in maintaining situational awareness. Hand in hand with this, team members are taught how to address concerns assertively and diplomatically. They learn appropriate ways to get attention, express concern, and suggest a possible action. If a team member raises a concern others realize is not an issue, they are encouraged to use that as a teaching opportunity.

Learn the read-back technique

The read-back technique helps improve safety of oral instructions. We’re all familiar with reading back a phone number when someone gives it to us. Reading back actually involves four steps:

1. The doctor gives an oral order.
2. The nurse writes down the order.
3. The nurse reads back the order.
4. The doctor confirms to the nurse that the order is correct.

Step 4 is sometimes skipped, but it is important because it serves as a double check. It assures both the doctor and the nurse that the order is correct. Read-back sounds simple, but it is difficult to get people to take all four steps.

Reduce reliance on memory and vigilance

Experience and human factors research show humans are vulnerable to forgetting facts, data, and steps in a procedure when they are distracted, tired, or in a crisis. Pilots use cognitive aids such as checklists even if they have thousands of hours of experience. Yet health care practitioners historically have relied on memory. Now clinicians are beginning to adopt more memory aids to improve safety.

Example: A group of anesthesia providers and other experts in the VA developed a set of cognitive aids for anesthesiology based on events described in the book, Crisis Management in Anesthesiology, by David M. Gaba, Kevin Fish, and Steven K. Howard (Churchill Livingstone, 1994). These guidelines, on laminated cards, are a quick reference for handling anaphylaxis, bronchospasm, cardiac arrest, and 13 other conditions.

Simplify processes

When developing guidelines for key processes, work to remove unnecessary steps from the process and help ensure everyone is performing the process in the same way.

Example: Every OR nurse and surgical technologist knows how to perform a sponge count. But not everyone does counts in the same way. When a new employee joins the staff or a traveling nurse steps in, that person may do counts differently than the rest of the staff. The variations leave room for error.

Develop checklists

Checklists are a good way to standardize processes and aid memory. Many ORs now use checklists for surgical site verification.

Example: Anesthesia providers in the VA developed checklists and protocols for conditions such as malignant hyperthermia so people will remember exactly what to do next.
Promote forced functions

Help eliminate the chance for error by designing processes and equipment so a procedure can be done only in the correct way. Whenever possible, safety should be “designed in” to equipment. OR staffs can promote safer equipment design by informing companies of design flaws that might lead to an error.

Example: Medical gas connections in the OR are a forced function.

Eliminate look alikes and sound alikes

We usually think of this in connection with drug names—Zyrtec and Zyprexa, Celebrex and Cerebyx, and so forth—but it applies in other areas as well. Consider how your OR keeps blood in the refrigerator. How easy is it for the staff to grab the wrong blood bag? The same applies to IV bags: Can irrigation solution be confused with solution intended for infusion?

Example: A nurse mistook a standard tuberculin syringe for an insulin syringe and gave a patient 50 units of insulin instead of the prescribed 5 units. The hospital had recently switched from Becton Dickinson syringes to VanishPoint syringes from Retractable Technologies, but all nurses had not yet been alerted.

The VanishPoint syringe has an orange plunger tip, and nurses associate an orange plunger with insulin syringes. The two syringes also have similar packaging. The Institute for Safe Medication Practices (ISMP) reported the incident in its Nov 13 newsletter (www.ismp.org).

Build in redundant systems

Redundant systems are second nature in the OR. ORs stock backup supplies and instruments. They have generators in case of power outages. They have multiple checks for patient allergies, surgical site identification, and other processes. Are there other ways in which redundant systems could make your OR safer?

Learn from simulation

Simulation, well known in aviation, allows pilots to rehearse a process without errors causing harm. Anesthesiologists and surgeons also increasingly use simulation to practice procedures.

At the Laboratory of Human Performance in Anesthesiology at Stanford University and the VA in Palo Alto, Calif, David Gaba, MD, and his colleagues have developed a hands-on patient simulator that allows anesthesia personnel to practice managing patient crises in a realistic setting. The lab teaches courses in Anesthesia Crisis Resource Management and is developing other patient safety projects (www.anesthesia.stanford.edu/VA Simulator).

Simulations don’t have to be high tech. After an adverse event or a near miss, an OR team could reconstruct the incident to analyze what went wrong and how to improve the process.

Example: A patient starts to fall off a gurney. The patient isn’t injured, but the staff wants to learn how to prevent similar events in the future. By reconstructing the incident later, perhaps using a mannequin, the staff can learn what led to this near miss and recommend ways to prevent such falls.

Pick new facilitators

In analyzing risks, we tend to gather the usual team—physicians, nurses, and administrators. Are there others who could bring a different perspective, perhaps support staff, students, or a vendor?

Example: While visiting an OR, a patient safety nurse observed a pale pink disinfectant/deodorant solution packaged in a semi-rigid container with graduated volume markers on the side. The container was similar to the hospital’s sodium chloride irrigation solution bottles, including a plastic loop on the bottom like the loop for hanging IV solutions.

An investigation found the housekeeping staff routinely got bottles of sterile irrigation solutions, added a disinfectant concentrate to the contents, and placed a manufacturer-provided label over the sodium chloride irrigation label.

ISMP, which described the incident, says it has noticed soaps, fixatives, and even poisonous substances in bottles that look like drug containers. (See ISMP’s Sept 4, 2002, Medication Safety Alert at www.ismp.org)

Involving support staff in patient safety activities might help bring such practices to light before harm is done.

Resource


National Center for Patient Safety. www.patientsafety.gov

Distractions a common cause of drug errors

Errors in administering drugs are a serious cause of patient injury and raise costs to insurers, finds a new national study by the US Pharmacopeia (USP) Center for the Advancement of Patient Safety (CAPS).

This third annual study analyzes medication errors captured in 2001 by USP. In all, 105,603 medication errors were voluntarily provided by 368 facilities nationwide.

The majority of the documented errors were corrected before causing harm, but 2,500 (2.4%) resulted in patient injuries.

Of the injuries, 353 required hospitalization, 70 required life-sustaining interventions, and 14 resulted in patient death.

More patient harm resulted when clinicians gave drugs incorrectly or gave the wrong dosages. Improper dilution of IV products was nearly four times more likely to cause patient harm.

Among the most common causes of errors:

• distractions: 47%
• workload increases: 24%
• staffing issues: 36%

In pediatrics, common errors were miscalculations in converting patient weight from pounds to kilograms and failure to record drug allergies. In emergency rooms, more than 58% of medication errors were attributed to an improper dose, an omission, prescribing the wrong drug or dose, or incorrect directions.

The improper dosage for heparin was reported most often. Also frequently cited for improper dosage were diphtheria tetanus toxoid vaccine in pediatric patients and diltiazem (Cardizem) given for hypertension and angina.

—www.usp.org
Hand hygiene

Continued from page 1

tially abolished the traditional long pre-surgical scrub.

For surgical hand antisepsis, the new guideline recommends using either an antimicrobial soap or an alcohol-based hand rub with persistent activity. Hand washing with regular soap is still necessary before using alcohol rub products, however, because alcohol rub products are not cleaning agents and don’t remove surface dirt. The guideline does not make a recommendation on brushes.

The new guideline came on top of several recent studies showing equal or superior effectiveness of alcohol-based rubs over the traditional preoperative scrub.

A randomized study comparing the effects of hand rubbing with alcohol and the traditional surgical scrub on surgical site infection rates, published in August 2002, found the alcohol hand rub as effective as the traditional scrub.

In December 2001, a randomized, controlled study demonstrated that a brushless application of an alcohol-based product with chlorhexidine gluconate (CHG) yielded lower bacterial counts on the hands than brushless application of an alcohol-based product without CHG or a CHG product applied with a sponge/brush.

A prospective study published in February 2001 comparing an alcohol-based product with a CHG product found the alcohol product without a brush performed significantly better than the traditional CHG scrub. The log kill for the alcohol after the scrub was significantly higher than with the CHG product.

Comparing costs, this study found that, including staff and OR time, the cost of the regimen was approximately $60 for a 6-min traditional scrub and $20 for a 2-min hand rub.

The CDC notes that a single severe surgical-site infection could cost a hospital more than the hospital’s entire annual budget for hand antiseptic products.

“No brainer”

“If we had had the CDC’s new hand hygiene guidelines 5 years ago when we began the switch to alcohol, it would have been a no brainer,” says Etta Hodge, RN, MBA, CNOR, director of surgical services and sterile processing at Christus St Joseph Hospital in Houston.

Christus St Joseph was one of the first hospitals in the country to switch from traditional surgical scrubbing to the alcohol-based rub. For the past 5 years, the 16-room main OR has not had any brushes or other hand-wash antiseptics available.

“There were nay sayers in the beginning,” says Hodge, but it was mainly among the more veteran surgeons who had never known any other way to wash their hands. “The brush was tried and true for them, and they just couldn’t believe that you could get the same efficacy without scrubbing.” The nurses and surgical technologists did not object at all.

Hodge presented information on the alcohol-based rub and studies supporting its efficacy at the monthly OR committee meeting. At the time, many regarded it simply as a novel idea of getting rid of the brush and the waste involved with it.

The consensus of the OR committee and the infection control coordinator was to “go for it,” says Hodge. After a year of monitoring infection rates, not only was there no increase, there were fewer infections. (Experts advise that isolating a single cause of surgical site infections is not possible without a very large study that would not be practical for individual hospitals.)

The surgeons who like to socialize while they scrub still tend to do the hand rub longer than its recommended 3 minutes. This happens despite automatic timers that tell them when to stop. Hodge doesn’t object because the surgeons are compliant with using the alcohol product, and when they are in a hurry, they do the rub for the 3 minutes.

A plus with the alcohol-based product the OR chose is that it has to be used with water and does not require a prewash. Hodge believes it is easier to monitor the one step than trying to make sure everyone washes hands before applying the alcohol.

None of the staff has complained about dryness or rashes with the alcohol-based rub, and “the surgeons love the way it smells, so everyone is happy,” says Hodge.

North Colorado Medical Center in Greeley, Colo, which is using an alcohol-based rub product, found it saved 20,000 gallons of water during the 8-week trial period. Though the dollar savings weren’t significant, about $35, water conservation is important in this drought-stricken region. There also is less trash because fewer towels are used. For each case in which the alcohol

CDC recommendations

For surgical hand antisepsis before donning surgical gloves, the Centers for Disease Control and Prevention’s Guideline for Hand Hygiene in Health-Care Settings recommends:

• Removing rings, watches, and bracelets
• Removing debris from underneath the fingernails using a nail cleaner under running water
• Using either an antimicrobial soap or an alcohol-based hand rub with persistent activity
• When using an antimicrobial soap, scrubbing hands and forearms for the manufacturer-recommended length of time, usually 2 to 6 minutes—long scrubs are not necessary
• When using an alcohol-based hand rub, prewashing hands and forearms with a nonantimicrobial soap and drying hands and forearms completely. After applying the alcohol product according to manufacturer’s instructions, allow hands and forearms to dry thoroughly.
rub is used, the hospital saves about 17 cents in trash removal.

**Giving staff a choice**

The growing scientific evidence showing the efficacy of alcohol-based products for hand hygiene is what convinced Janet Keen, RN, MS, CIC, infection control specialist at Saint Joseph’s Hospital of Atlanta, to investigate the use of alcohol-based rubs.

“I was aware of an emerging body of information that emphasized hand skin health,” says Keen. Intact skin is less likely to hold bacteria that colonizes on the skin. The alcohol-based products claimed to help preserve hand skin condition in addition to having superb antiseptic properties.

The conclusions from articles in peer-reviewed journals, the fact that alcohol had a long tradition as a hand antiseptic in Europe, plus the description of alcohol as an appropriate hand antiseptic in the 1999 CDC Guideline for Prevention of Surgical Site Infection gave Keen the confidence to bring the alcohol-rub process to the infection control committee.

After the committee’s approval, alcohol-based hand rub products were brought to the OR for a trial period. Keen watched infection rates closely during this time and did not observe any difference.

Staff members still have a choice of the traditional scrubbing product or the alcohol-based product, which some 40% are now using. The number using the alcohol-based rub has grown steadily since it was instituted in August 2001.

Stephanie Ward, RN, CNOR, Saint Joseph’s materials coordinator for the OR, attributes the ease of the transition to the fact that both products were available. Both will continue to be available for now. Those who use the alcohol-based rub seem happy with it, and there have not been complaints of rashes or dryness.

**Going cold turkey**

The staff at Brandon Regional Hospital in Brandon, Fla, had to stop scrubbing cold turkey.

One night all of the traditional hand scrub products and brushes disappeared and were replaced by an alcohol-based rub product.

“This was the only way to make everyone try the alcohol and to keep them from using the brushes with the alcohol,” says cardiac surgery nurse practitioner, JoAnn Cundy, RN, ARNP, MSN, CRNFA.

The switch to the alcohol-based product started in the cardiac wing, then spread to the general OR.

Because the cardiac program was brand new, the cardiac staff had more leverage to bring in new products, but they still had to go through the OR’s process to get it approved, notes the surgical services director, Pat Mews, RN, MHA, CNOR.

None of the cardiac surgeons or nurses objected to the change to the alcohol-based rub, but there was protest and disbelief in the general OR. Brandon has 11 ORs, including the cardiac rooms.

The surgical services educator, Sheryl Heise, RN, MPH, says that when the surgeons were shown data on the efficacy of the alcohol-based rub compared to scrubbing with brushes, it was easier to get them to use it. The cardiac patients use the same alcohol-based rub product for preop showers the night before surgery and the morning of surgery after their hair clipping.

The alcohol-based rub has been well accepted, to the point that only four people on the OR staff, including nurses, surgeons, and techs, do not use the alcohol. These four were using special soaps to begin with because of sensitive skin and went back to that soap.

In the beginning, some argued the alcohol-based product would cost more, but Mews has found the cost actually comes out to be the same or a little less than the surgical scrub products and scrub brushes.

All in all, says Cundy, the alcohol-based rub saves time, the staff have less skin irritation, and the cardiac surgery infection rates are low at 1.2%. Cundy herself notes that in the past, she had contact dermatitis with open sores from scrubbing sometimes 10 times a day, but with the alcohol-based rub she no longer has skin problems.

—Judith M. Mathias, RN, MA

**References**


**First Baldrige Award in health care**

Any not-for-profit Catholic health system based in St Louis is the first health care winner of the Malcolm Baldrige National Quality Award, the nation’s premier award for performance excellence and quality. Winners were announced Nov 21.

The system, SSM Health Care (SSMHC), includes 21 acute care hospitals and three nursing homes in Missouri, Illinois, Wisconsin, and Oklahoma.

The award, named after a former Secretary of Commerce, is given to organizations in the US showing exemplary achievement in leadership, strategic planning, customer and market focus, information and analysis, human resources, process management, and results.

One of SSMHC’s projects is a collaborative process in which physicians work with other caregivers and administrators to make rapid improvements. The system had 85 teams working on projects in 2002. Two collaboratives focused on meeting national benchmarks for treatment of congestive heart failure and ischemic heart disease.

Award applicants undergo a minimum of 300 hours of review by independent examiners. Finalists receive 1,000 hours of review plus a visit by teams of examiners. Since 1988, 49 organizations have won the award.

—www.nist.gov

❖
MIS knees are a hot topic in orthopedics

Small chrome discs slipped into the knee to provide a smooth surface for the bones to glide over. Global positioning systems (GPSs) adapted to the human anatomy that map the ideal route to damaged knee tissue before surgery.

Minimally invasive techniques like these are revolutionizing orthopedic surgery, just as they have general and cardiac surgery.

Because these techniques are less disruptive to muscles and tendons, patients have less pain and recover faster.

Will patient demand drive these procedures as it did laparoscopic cholecystectomy? Will the advantages outweigh the high cost?

It’s a hot topic among orthopedic surgeons.

MIS knee procedures

Traditional total knee replacement and partial knee replacement are getting competition from less invasive procedures—the Uni Knee (Zimmer, Warsaw, Ind) and the UniSpacer (Sulzer Orthopedics Inc, Austin, Tex). Similar knee systems are made by DePuy, a Johnson & Johnson Company, Warsaw, Ind, (Preservation Uni) and by Centerpulse Orthopedics Inc, Austin, Tex (Natural-Knee).

The Uni Knee is a unicompartment prosthesis that can be inserted minimally invasively with new retractors and instrumentation developed by Zimmer. The implant used for the Uni Knee is the same as that used for the traditional open procedure, however.

The minimally invasive procedure, performed through a 2- to 3-inch incision as opposed to the traditional 8- to 12-inch incision, is less damaging to muscles and soft tissue around the knee, and there is less than 200 mL of blood loss.

The hospital stay is typically 24 hours or fewer, and the recovery time is 2 to 5 weeks. In contrast, the hospital stay for a traditional unicompartmental or knee replacement is usually 3 days with a recovery time of 6 to 8 months or more.

The procedure is less costly than the traditional operation because it is done on an outpatient basis in 80% of cases, and postoperative physical therapy is minimal. But the new minimally invasive instrumentation is more expensive than that for a total knee, even though the prosthesis is the same.

The UniSpacer

Even less invasive is the UniSpacer, a kidney-shaped disc made of cobalt chrome. The disc provides a smooth surface for the bones to glide over when the cartilage has been worn away by arthritis.

The device is designed to relieve pain and improve joint stability, restoring ligament tension and the normal alignment of the knee.

The UniSpacer comes in a range of sizes to conform as closely as possible to the weight and size of each patient. It is geometrically designed to self-center and move with the knee, adapting to each person’s normal knee motion. Most patients recover 80% to 90% of their knee function in 8 to 12 weeks.

The UniSpacer is not suitable for patients with significant patello-femoral disease, significant lateral compartment disease, or subchondral bone loss. The anterior and posterior cruciate ligament structures must be intact.

As of the end of April 2002, more than 400 spacers had been inserted with no unusual complications. The UniSpacer received US clearance for marketing in January 2001.

Like the Uni Knee, the UniSpacer is expensive, nearing the cost of total knee prostheses.

Outpatient total knees

Even the traditional open knee procedure is being performed on an outpatient basis.

At Bailey Square Surgery Center, Austin, Tex, surgeon Eugene P. Schoch III, MD, can complete a cemented total knee procedure from initial incision to skin closure in about 1 hour. Patients stay at Bailey Square 23 hours and then are transferred directly to a rehabilitation hospital. After a couple of days at the rehab facility for inpatient physical therapy, patients are discharged to home and come in for outpatient physical therapy.

The secret to success is patient selection, says Tom Lally, Bailey Square’s administrator. Patients are healthy, active 40- to 50- year-olds. The surgery center does not do a large number of these procedures because many patients do not meet the criteria. The procedure is not performed on Medicare patients because Medicare does not pay for total knees in the outpatient setting.

Dr Schoch also performs the UniSpacer procedure, which takes him longer than the total knee because he usually does an arthroscopic debridement chondroplasty before inserting the disc. The UniSpacer patients also stay 23 hours but go home instead of to the rehab center.

Lally says the implants they use for total knees cost around $4,000 under their HCA contract, and the UniSpacer costs about $3,100.

Delaying the inevitable?

Are the new minimally invasive knee procedures alternatives to traditional surgery, or do they just delay the inevitable of total knee replacement?

Many surgeons see the minimally invasive techniques as a staged procedure to buy time before performing a total knee.

Kathleen Killeen, senior director of orthopaedic and neuroscience services for Health East Care System, St Paul, Minn, says many surgeons at her institution are reluctant to do the unicompartmental and UniSpacer procedures because they see them more as temporary. Another reason is that they are as expensive or more expensive than the total knee implants.

“The manufacturer has just redesigned the instrumentation so the implant can be inserted in a minimally invasive way. Now they want to charge us more than twice as much as we paid for the same unicompartmental knee implant that has been around for a decade,” says Killeen.
Minimally invasive surgery

According to the July 2002 Orthopedic Network News, unicondylar knee replacements doubled between 2000 and 2001, accounting for 2% of knee implants in 2001. The average selling price for the unicondylar knee implant was $1,911, an increase of 33% in a year.

Among surgeons, there are two schools of thought about whether the unicondylar implant and the minimally invasive procedures will grow.

“One school of thought is why give a patient a unicondylar knee that might last 5 or 10 years, when you can do a total knee that will last 20 years?” says Killeen.

The literature shows unicondylar knees fail earlier than total knees even when done as an open procedure.

“It is technically difficult to get the ligament balancing and proper alignment. So how is it going to be easier as a minimally invasive procedure through a smaller incision?” she asks.

On the other hand, the advantage of a smaller incision is faster recuperation time, even though there is not a savings in cost or OR time. Total knees and total hips are the last bastions of open procedures in orthopedics. If surgeons can make the minimally invasive procedure work, consumers will prefer that, says Killeen.

—Judith M. Mathias, RN, MA

A look at recovery room incidents

Over half of recovery room incidents occurred in patients in anesthesia classes 1 and 2, and most were reported during daylight hours.

The most common presenting problems were respiratory and airway issues (43%), cardiovascular problems (34%), and drug errors (11%). Almost a third (29%) of incidents led to a major physiological disturbance and required care in a high-dependency unit or ICU.

Factors that helped minimize incidents were experience, detection by monitoring, and skilled assistance. The authors conclude that the staffing and infrastructure of the recovery room need to be supported to help reduce such events.

The data are from an anesthesia-monitoring database in New Zealand.


Orthopedic “toolbox of the future”

The orthopedic surgeon’s “toolbox of the future” will include computer-aided tools, navigational systems similar to global positioning systems, and simulators like those used in the military and industry.

Computer-aided tools will allow surgeons to position artificial joints with unprecedented precision through smaller and smaller incisions.

Surgeons will be able to identify and treat only the damaged portion of the joint with greater accuracy.

“These technologies will transform surgery even more radically than fiberoptic technology has,” says Anthony M. DiGioia III, MD, an orthopedic surgeon, founder and director of the Western Pennsylvania Hospital Institute for Computer Assisted Orthopaedic Surgery and senior research scientist at Carnegie Mellon’s Robotics Institute.

Dr DiGioia, who was an engineer before earning his medical degree, has developed computer-assisted surgical navigation systems—HipNav and KneeNav—and an Image Overlay system to assist in orthopedic surgery. The systems use computers to plot preoperative strategies and optical localizers to increase accuracy.

Already, he says, the new techniques have enabled surgeons to reduce the size of total hip and knee replacement incisions by 50% and soft tissue dissection by 60% to 70%.

KneeNav uses a hand-held tracker placed in the usual saw slot of total knee replacement mechanical guides to get intraoperative measurements of alignment and guidance information. Incorrect orientation of implants and improper alignment can lead to accelerated implant wear, loosening, and suboptimal function.

KneeNav-ACL allows for accurate tunnel placement for anterior cruciate ligament (ACL) reconstruction. The surgeon can accurately plan and execute an ACL reconstruction by simulating the movement of the ACL in planned positions and by guiding the tools used in performing the graft.

Image Overlay, a computerized display technique, permits medical images to be displayed on the patient during surgery, giving the surgeon “x-ray vision” without ionizing radiation and without turning to view an image on a monitor.

These innovations will translate into smaller incisions, improved surgical precision, fewer complications, and speedier recoveries. Food and Drug Administration approval is expected this year.

Dr DiGioia predicts that within 10 years, “You’ll see a computer system to support the surgeon in every orthopedic operating room.”

Have an idea?

Do you have a topic you’d like to see covered in OR Manager? Have you completed a project you think would be of help to others? We’d be glad to consider your suggestions.

Please e-mail Editor Pat Patterson at ppatterson@ormanager.com
A high-level view of health care

Health care costs will continue to rise. The over-65 population will have a growing influence on health care services. Though 60% of surgery still will be done in the hospital setting by 2007, 40% will be done beyond the hospital walls in freestanding ambulatory surgery centers and physicians' offices.

**Outpatient surgery in community hospitals (% of total surgery)**

- **1980**: 16%
- **1990**: 51%
- **2000**: 63%

**Source**: American Hospital Association, CDC. www.cdc.gov/nchs

**How much of the gross domestic product (GDP) is spent on health care?**

- **13.2%**

**Source**: CDC, National Center for Health Statistics, 2000. www.cdc.gov/nchs

**Average length of stay in community hospitals (days)**

- **1985**: 7.1 days
- **1990**: 7.3 days
- **1995**: 6.5 days
- **2000**: 5.8 days

**Source**: American Hospital Association.

**Where will surgery be done?**

- **Physician's office**: 20% (2001), 21% (2003), 20% (2005), 20% (2007)
- **Freestanding surgery center**: 16% (2001), 17% (2003), 18% (2005), 19% (2007)
- **Hospital outpatient**: 42% (2001), 43% (2003), 44% (2005), 45% (2007)
- **Hospital inpatient**: 22% (2001), 20% (2003), 18% (2005), 17% (2007)

Seniors are expected to account for more than half of all hospital admissions by 2027

Expected growth for selected service lines over the next 5 years.

- Open heart: 63%
- Vascular surgery: 62%
- Cardiology: 59%
- Pulmonary: 56%
- General medicine: 55%
- Nephrology: 54%
- Neurology: 53%
- Medical oncology: 52%
- Urology: 52%
- Orthopedics: 51%
- Thoracic surgery: 51%
- General surgery: 47%
- Endocrine: 47%
- Gastroenterology: 46%

Where the health care money goes

Health costs are heading into another year of double-digit increases.

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Pressure ulcers: Sorting out the evidence

The operating room is a high-risk environment for pressure injuries.

Pressure injuries are costly in patient outcomes and in dollars.

Patients with pressure ulcers have significantly higher hospital costs ($37,288 vs $13,924) and longer stays (30.4 vs 12.8 days), than patients who do not develop ulcers, according to a 1999 report by Allman.

What can the OR do to prevent this painful and costly complication?

Surgery suites use support surfaces on operating tables and positioning devices to protect patients’ bony prominences and help redistribute weight over a large area.

There are a variety of surfaces to choose from: viscoelastic polymer gel, foam, gel-foam combinations, and fluid and air-filled products.

Is there evidence one is better than another?

Few studies in the literature have focused on the surgical patient. The studies have conflicting results, and most are funded by manufacturers.

Sense of the evidence

How can you make sense of the evidence?

Don’t automatically dismiss studies because they are sponsored by manufacturers, comments Nancy Stotts, RN, EdD, professor of nursing at the University of California, San Francisco, and an expert on pressure ulcers in surgical patients.

“I think the manufacturer-sponsored research is relevant,” she says. “They are the only ones who are going to pay for it, unfortunately.”

Hints for judging the studies:

• Look for studies published in a peer-reviewed journal.
• Ask if the study applies to your patient population. Did it include surgical patients who had similar severity of illness and similar procedures to your population?
• Consider the size of the study group and the nature of the control group. For example, does the study compare the product with another good product or with something that will make the product look good?

What is the incidence?

Part of the difficulty in determining the extent of the problem in surgery is that it is hard to identify which patients have pressure ulcers that originated in the OR, says Stotts. A patient may come to surgery with no signs of an ulcer; then the ulcer becomes visible 3 days postoperatively.

“Is that the OR’s fault?” Stotts asks. “It may or may not be. It could be an old deep ulcer that is just presenting itself, or it could be OR acquired.”

To sort out the risk in their surgical population, managers need to consider incidence, not prevalence, Stotts advises.

The incidence is the number of new cases that occur in a population at risk within a defined time interval. Thus, the incidence of pressure ulcers in surgical patients is the number of new pressure ulcers in that population during the measurement period.

Prevalence is how many cases there are in a population at a given time. This means how many patients in the hospital have pressure ulcers at any given time, regardless of whether they occurred before the patient was admitted or after.

Usually, there are more medical patients than surgical patients with pressure ulcers because medical patients are more frequently admitted with them. Surgeons often won’t perform surgery on a patient who has an existing pressure ulcer until it is healed.

Because of the confusion between incidence and prevalence, she does not consider pressure ulcers a good measure of quality of care.

“It is like saying the number of people who die [after surgery] is a measure of what kind of surgeon you have or the hospital’s infection control practices. It really depends largely on the patients who present themselves to you.”

For surgical services managers selecting a support surface for the OR, Stotts suggests:

• Have the quality assurance department give you the incidence of pressure ulcers—not the prevalence.”
• Find out how often pressure ulcers happen in the OR and which patients they happen to. “I would want a profile of those people, how long they were on a given mattress. I would want to follow that for some period of time.”

What is the OR’s liability?

A researcher who serves as an expert witness for lawsuits involving pressure ulcers for both the plaintiff and the defense tells OR Manager most of the plaintiffs have had surgical procedures.

These cases are not limited to long procedures, although studies show patients positioned on an OR table for 3 hours or more are more likely to develop pressure ulcers.

One notable link is a diastolic blood pressure of 50 to 60 mm Hg for 1 to 1 1/2 hours.

“There is data to support that lowered blood pressure is a likely causation of pressure necrosis,” says Sharon Aronovitch, RN, PhD.

One question attorneys always ask nurses in such cases is what kind of a surface the patient was on in the operating room. When asked, the nurse should provide the name of the mattress and describe what it is made of, she suggests.

Plaintiffs can sue successfully even though there is little evidence the mattress makes a difference, she says. The case depends on what caregivers provided for the patient either during the procedure or immediately afterward to minimize the severity of the injury.

“The best advice is to use pressure-relieving systems on the OR tables. If they are in use, there should be some way of documenting that on the OR record,” says Aronovitch.

As an expert witness, Aronovitch is frequently frustrated by the lack of information about:

• how the patient was padded and positioned in the OR
• whether the skin was assessed following the procedure
• what type of surface the patient was placed on in the OR and the posta-
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Look for a full brochure in the April issue of OR Manager.
Aronovitch, who is at the School of Nursing at Florida State University, Tallahassee, plans to replicate a 1999 study on intraoperative pressure ulcer prevalence, extending the study to look at etiologies.

New guidelines coming

More guidance may be coming. The National Pressure Ulcer Advisory Panel (www.npuap.org) has a Support Surface Initiative that will develop guidelines over the next 3 years. The guidelines are intended to provide an objective means for evaluating products, including common terminology and testing standards. The independent not-for-profit organization is dedicated to prevention and management of pressure ulcers.

One hospital’s strategy

Saint Joseph’s Hospital of Atlanta created a task force to develop a quality improvement strategy for protecting patients’ skin integrity after enterostomal nurses noticed the incidence of decubitus ulcers was rising.

The biggest problem areas were in long-term care and longer-stay ICUs, where patients were bedridden.

Surgical patients with the highest incidence of pressure ulcers were those having cardiac, vascular, and orthopedic procedures, which make up the bulk of cases in Saint Joseph’s 19 inpatient operating rooms. There were also some plastic surgery cases. The tertiary referral center performs more than 9,000 inpatient procedures a year, and the average length of cases is 2.5 hours.

Affected patients were on the OR table for an extended time and already had vascular and circulatory compromise, notes Patti Cox, RN, CNOR, orthopedic service coordinator for surgery and a member of the task force.

The OR already had a list of standard criteria for patients at high risk for skin breakdown:

- surgery lasting 3 or more hours
- diabetes
- renal failure
- steroid dependency
- nonambulatory status
- peripheral vascular disease
- geriatric age group
- obesity.

As part of the initiative, Cox began a

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### Studies on intraoperative pressure injuries

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### References


3-month trial of mattresses and positioning devices for lengthy cases, using gel and combination gel-foam products from different companies. The OR staff and managers concluded that one gel mattress gave superior support compared to the others. The OR replaced all of its foam mattresses with the new gel mattresses in all ORs and the cysto room.

“We were so confident of the comfort and cushioning of the gel mattress we chose that we didn’t feel we needed to put additional gel pads under the elbows or heels,” says Cox. “The patients almost seemed to float in the cushioning of the gel.”

Not only were the gel mattresses more comfortable, the incidence of pressure ulcers decreased (chart). Cox attributes the lower incidence both to the gel mattresses and heightened staff awareness.

The rest of the hospital also upgraded its mattresses and initiated a new skin integrity protocol.

All gel, all the time

Eventually, Saint Joseph’s OR began replacing heel pads, arm pads, and other positioning devices with the gel products. The staff liked the smooth surface of the gel compared with the more abrasive foam, says Fran Tawes, RN, CNOR, clinical nurse specialist for perioperative services.

The only problem with the gel accessories in the beginning was that attendants sometimes threw them away after a case, and they are fairly expensive.

After noticing skin irritation on some patients positioned on the gel products, Tawes and her team found the irritation seemed to stem from the disinfectant used to clean the mattress and positioning devices not being rinsed off. There is no sheet between the mattress and the skin because the gel products must have direct contact with the patient. The OR adopted a policy that all gel products had to be rinsed after being disinfected. Since this change, there have been no further problems with skin irritation.

Although the gel mattresses cost $3,000 each, Tawes believes the change is worth the money.

“One stage-4 decubitus ulcer can keep a patient in the hospital an extra 15 days. You don’t have to be a mathematician to figure out the cost of that,” she says.

—Judith M. Mathias, RN, MA

References


New book on competence assessment

A new book from Joint Commission Resources provides guidance on one of the most challenging accreditation standards—assessing staff competence.

The book is intended to help readers understand what the standard requires with explanations of the requirements and discussions of common compliance problems. There are practical examples plus sample charts, graphs, forms, and other tools. The chapters cover:

• developing a successful program for competence assessment
• initial assessments
• ongoing assessments
• using assessments to improve performance and patient safety.

The book is available for $55 by calling 877/223-6866.
Thinking about eye instruments and CJD

Most OR directors have already responded to the need to develop a policy and procedure for managing instrumentation for patients who may have one of the transmissible spongiform encephalopathies (TSE), including Creutzfeldt-Jakob disease (CJD). In our July 2001 column, we provided some insight on current thinking in this regard. However, one major dilemma remains.

All of the public discussion on processing instruments potentially contaminated with CJD has focused on neurosurgical procedures. Yet we know eye tissue also has been implicated in CJD transmission through corneal transplant in several individuals.

Because eye tissue has been implicated in iatrogenic transmission of CJD, should we take special precautions with these instruments as well?

The decision about eye tissue is not as straightforward as one involving a brain biopsy, for example. A patient with no detectable lesion who has a brain biopsy falls within the group requiring special precautions, according to the World Health Organization recommendations and the Draft Guideline on Sterilization and Disinfection from the federal Healthcare Infection Control Practices Advisory Committee (HICPAC). A brain biopsy can be performed using relatively simple instruments or a disposable kit.

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But this is not possible with phacoemulsification of a cataract, for instance. And there is no “convenient” screening category for eyes, such as the one noted above for brain biopsies. Onset of CJD usually occurs between the ages of 50 and 70—precisely the ages when patients seek operative relief from cataracts. We also do not know how long the disease is transmissible prior to onset of symptoms of dementia.

Add to this the pressure to speed through the list of eye cases on any given day, and the situation becomes more complex. Many facilities routinely depend on flash steam sterilization for quick turnaround of eye instruments. Most flash sterilizers use gravity-displacement cycles with exposure times between 3 and 10 minutes, depending on the characteristics of the load. In contrast, the recommendations for the decontamination of potentially CJD-contaminated devices begin at a 60-minute exposure time for gravity displacement.

Thus, if we are serious about minimizing the possibility of cross-contamination from CJD, we may want to look diligently at the processing of all eye surgery instruments.

A processing hierarchy
Sterilization science experts Rutala and Weber as well as the HICPAC draft suggest a hierarchy for managing instruments used on tissue carrying the potential high risk of CJD transmission:

• Critical devices (those that must be sterile in use) that are difficult to clean should preferably be disposed of or, if that is not feasible, subjected to one of the following treatments prior to cleaning:
  —Keep moist then sterilize for 18 minutes at 270°F in a prevacuum cycle or for 60 minutes at 250°F in a gravity displacement cycle.
  —Soak in a 1 N solution of sodium hydroxide or sodium hypochlorite for 1 hour.
• Critical devices that are easily cleaned (no small lumens or in accessible channels) should be cleaned then steam sterilized using one of the time/temperature combinations noted above and returned to normal service.
• Semi-critical devices should be cleaned and high-level disinfected or sterilized as usual.
• Noncritical devices should be cleaned and wiped with a hospital grade hard surface disinfectant.

Where do eye instruments fit in?
Clearly, these recommendations would wreak havoc with most eye instrumentation-handling timetables. More instrument sets would be needed. Some eye instruments would fit into the critical-but-difficult-to-clean category. Would sterilizing these prior to cleaning result in baked-on materials that could interfere with later use or serve as potential particulate contamination for another patient, even though sterile?

Some devices used in ophthalmology may be routinely processed through low-temperature sterilization methods. These methods would be contraindicated, because there is some evidence that these methods are not effective against prions, the causative agent for TSEs.

Soaking these delicate instruments in harsh chemical solutions not only would likely damage them but call for rigorous and validated rinsing protocols to make certain all chemical residues have been reduced to a safe level before the instruments are used on the next patient’s eye.

Of course, if you are doing less than the recommended minimum processing of cleaning with a detergent solution, rinsing, and sterilizing, you may want to rethink your practices. We would like to think, “Doesn’t everybody know...”

Risk of CJD transmission

Highest risk
• Brain
• Spinal cord
• Eye tissue

Significantly less infective
• Cerebral spinal fluid
• Lung
• Liver
• Kidney
• Spleen
• Lymph nodes
that?” But we have observed several eye surgery programs that do not conform to this norm. Some think the instrumentation is not really soiled, although it has the patient’s protein on it. Some voice concern about chemical contamination of the eye if the devices are not properly rinsed. Using only water to “clean” eye instruments carries the risks of infection or retained foreign matter for the next patient, both of which could be devastating.

What is risk of cross-infection?
All of this is predicated on the assumption that there is a significant risk of cross-infection from instrumentation that is properly cleaned and sterilized by ordinary means. There is a lack of epidemiological evidence to support this conclusion. All of the cases of known iatrogenic transmission involving instrumentation occurred more than 20 years ago, and the processing methods used were less than adequate by any standard, including failure to even clean the devices using detergent and water. And all of the known cases of instrument-related transmission happen to have involved neurosurgical applications that were subjected to questionable cleaning and sterilization methods.

Yet you are faced with the fears of some patients and a mandate from the Joint Commission on the Accreditation of Healthcare Organizations to develop a plan based on the available scientific evidence. Ethically, can you treat eye patients differently than neuro patients when the evidence indicates both involve contact with high-risk tissues? Or do you use a risk-benefit analysis to develop your policy, based on the lack of implication of eye instrumentation to date?

Only you and your colleagues at your institution can answer those questions. Just make certain you are not making the decision based solely on the economic or inconvenient implications of changing your practices for eye instrumentation.

—Marimargaret Reichert, RN, MA
Olmsted Falls, Ohio
—Janet K. Schultz, RN, MSN
Denver

Marimargaret Reichert and Janet K. Schultz are consultants well known for their expertise in sterilization and disinfection.

References
California hospital costs skyrocketing

The cost of inpatient care in California is rising more rapidly than the national average, according to a new study from the Blue Cross and Blue Shield Association.

California is 45% higher than the national average for inpatient expenditures per admission and has the second highest rate of per-capita annual inpatient expenditure growth at 11.3%, nearly four times the inflation rate from 1998 to 2001.

“It appears that while hospital costs are speeding forward throughout the country, California is in the passing lane,” said one of the researchers.

The leading reasons for California’s skyrocketing healthcare costs are rapid adoption of major expensive advanced technology and the nursing shortage, according to Blue Cross and Blue Shield.

California ranked 49th in nurses per capita in 2000. Each 1% increase in the shortage of nurses leads to a 1% increase in hospital per-capita expenditures, according to one of the researchers. —www.bcbshealthissues.com

Radiologists most difficult to recruit

Radiologists are the most difficult physician specialist to recruit, and family practice physicians are the easiest, according to a new survey by national physician search firm Merritt, Hawkins & Associates of Dallas.

Others rated “very difficult” to recruit include:
- orthopedic surgeons by 58% of respondents
- anesthesiologists: 49%
- cardiologists: 47%
- urologists: 42%
- obstetrician/gynecologists: 37%.

Nearly 85% of 280 hospital administrators responding were actively recruiting physicians in mid-2002. More than half of those not recruiting planned to do so within 6 months, according to the Oct 25 AHA News Now.

The most common specialties being recruited are:
- family practice by 45% of respondents
- internists: 32%
- orthopedic surgeons: 31%
- general surgeons: 27%
- cardiologists: 23%
- anesthesiologists: 20%.

—www.merritthawkins.com

Nursing shortage “driving” incentives

The nursing shortage has forced hospitals to woo nurses with creative incentives not seen since the “dot com” boom days.

Queen of Angels Hollywood Presbyterian Medical Center in Los Angeles is “driving” nursing candidates to its facility with a program called “Put Your Career in Gear.” The new program will offer car leases to qualified candidates, according to the Nov 18 Legislative Network for Nurses.

Core Curriculum for Perioperative Nursing

Now in its fourth edition, the classic reference, Core Curriculum for Perioperative Nursing, has guided the orientation of thousands of OR nurses since it was first published in 1991. This respected guide has been updated to reflect changing practice.

The book includes basic competencies for expected performance, lesson plans for classroom activities, outlines for clinical focus days, and performance checklists. The extensive references have also been updated.

As hospitals and ambulatory facilities face an increasing shortage of nurses, many are hiring nurses without OR experience and providing on-site training. This book is the perfect guide for such training.

The book can be used for orientation of nurses who are experienced in perioperative nursing as well as those who are new to this specialty.

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The postop phone call: An effective tool?

What kind of follow-up are you doing with your patients? Are you making a phone call? Is e-mail something to consider?

Contacts patients shortly after discharge is important for continuity of care and for quality monitoring.

But follow-up no longer has to be done by phone, according to the American Society of PeriAnesthesia Nurses (ASPN).

ASPN changed its standards this year to say: “The professional perianesthesia nurse will complete a discharge follow-up to assess and evaluate patient status.” But the postop phone call is no longer mentioned.

“This should not be construed to mean no more postop phone calls. Rather, we are saying there may be other ways to communicate with patients,” says Denise O’Brien, RN, CPAN, CAPA, a perianesthesia nurse at the University of Michigan (UM), Ann Arbor, and a member of the standards committee.

Questions about JCAHO

One reason for the change is to help address questions about Joint Commission on Accreditation of Healthcare Organizations standards. JCAHO does not require a postop phone call. The Continuum of Care standard (CC.4.1) states: “The follow-up process provides for continuing care to meet the patient’s needs.” It’s up to each organization to decide how to follow up.

Some ASPAN members were concerned that if their policy stated they would make a postop phone call, JCAHO might cite them for not having the same standard of care if they call most patients the day after surgery, yet wait until Monday to call those having surgery on Friday. As a result, some nurses were coming in on Saturdays to make calls. Some facilities stopped phone calls altogether—then patients are getting no follow-up at all,” O’Brien pointed out.

Instead, ASPAN decided to leave the options open.

“Whatever you do, your policy needs to reflect that,” she stressed.

If your center is closed on weekends, you would not want the policy to say you will call each patient within 24 hours after discharge. The UM specifies that calls will be attempted on the next working day after surgery. Others say within 72 hours.

The hospital did a survey several years ago to find out what happened to patients who couldn’t be reached. Nurses called patients as many times as it took to reach them. They found no major issues among patients who couldn’t be reached in the first two or three attempts.

The Accreditation Association for Ambulatory Health Care (AAAHC) also does not require a postop phone call, though the standards refer to continuity of care as an element of high-quality health care.

Why are you calling?

The call should go beyond saying, “Hi, I’m Cherry Ames. I’m just calling to see how you are doing and if you have any questions,” advises Sandra Barnes, RN, MS, CPAN, nurse manager of ambulatory surgery, postanesthesia care unit, and pain management at Greenwich Hospital, Greenwich, Conn, who wrote about the subject in the Journal of PeriAnesthesia Nursing.

In addition to assessing the patient’s status, the call is an opportunity to:

• evaluate the patient’s preoperative education
• identify trends that may require practice improvements
• determine compliance with discharge instructions
• assess the patient’s overall impression of the facility’s performance.

“You need to identify what you want to accomplish, establish a protocol, provide sufficient time to accomplish the task, and ensure the nurse has the proper skills,” Barnes suggests.

At Greenwich Hospital, the protocol includes collecting data for:

• operative pain
• dressing or surgical site
• voiding (a higher priority with certain procedures and types of anesthesia)
• fever
• reminder to make follow-up appointment with physician

Continued on page 26
Continued from page 25

- review of written postop instructions
- opportunity for the patient to voice additional concerns.

To document the call, nurses use computerized documentation and manually record outstanding concerns in a log. Anything out of the ordinary, such as inadequate pain management or a trip to the ER, is recorded in a comments section. The forms are reviewed quarterly for trends and quality monitoring.

What’s important to follow up?

A study led by Alex Macario, MD, MBA, of Stanford documented which anesthesia outcomes of outpatient surgery anesthesiologists believe occur frequently and which ones they believe patients would most want to avoid. The researchers asked a panel of 72 anesthesiologists (78% response) to judge the frequency and importance to the patient of 33 outpatient anesthesia outcomes associated with routine outpatient surgery.

The top five were:
- incisional pain
- nausea
- vomiting
- preoperative anxiety
- discomfort from inserting IV catheter.

They suggest that monitoring anesthesia outcomes may be more useful than patient satisfaction as a measure of quality.

Although major morbidity is uncommon after ambulatory surgery, distressing symptoms and reduced function are common 7 days postoperatively, according to Swan and colleagues, who studied the functional status of patients after hernia and laparoscopic procedures.

Nurse researcher Susan Kleinbeck, RN, PhD, CNOR, studied a postdischarge surgical recovery (PSR) scale that could be used in the postop phone call and to monitor patterns in patients’ symptoms over time.

Who should make the call?

The ASPAN standards state that a professional perianesthesia nurse will complete the discharge follow-up.

“There have been attempts to do this with clerical staff, but that usually fails,” comments O’Brien. “A clerical person can collect data but can’t evaluate the information and make a nursing diagnosis or formulate an intervention.”

A phone call is more personal, though it takes more staff time. The nurse can often elicit more information from a phone interview than would be gathered in a written response, adds Donna Slosburg, RN, BSN, national surgery specialist for HealthSouth, which has more than 200 surgery centers nationwide.

She prefers that an RN make the call but has seen facilities use an LPN or business office person. If there are any clinical questions or concerns, an RN is put on the phone.

At the SurgiCenter of Baltimore, a freestanding facility, the anesthesiologist makes the postop phone call the night of surgery for all patients except those having local anesthesia.

“I don’t know of any other center where the doctor makes the call, but our patients love it,” says the center’s director, Jerry Henderson, RN, BS, CNOR, CASC.

Nurses call local anesthesia patients the following day.

She finds the calls valuable.

“We find out if the patient had any immediate postop complications and head off potential problems. It’s also part of our patient satisfaction monitoring.”

She noted that some surgery centers make two calls—one the day after surgery and the second 10 days later to pick up any postop infections.

Should you leave a message?

For patient privacy reasons, nurses generally don’t leave a message if they get voice mail. They may call again later.

Slosburg commented that “a recent survey found most of our centers call patients postoperatively and make two or three attempts. If there is no answer, they send a letter with the same questions asked in the phone call.”

How does the federal patient privacy rule apply to postop phone calls?

The rule, part of the Health Insurance Portability and Accountability Act (HIPAA), permits disclosure of a patient’s protected health information for the purposes of treatment, payment, or health care operations. The postop phone call could be considered a part of treatment because it is intended to ensure patients are recovering without complications.

But leaving a message with a patient’s protected health information on an unsecured voice mail is not a good idea, comments Robert Tennant, a HIPAA expert with the Medical Group Management Association (MGMA).

You might leave a general message like, “This is St Somewhere Hospital calling. Please call us as soon as possible at [number].”

If a patient asks you to give follow-up information to someone else, such as a spouse or relative, “you should get the patient’s authorization to release that information,” Tennant suggests.

The privacy rule does not permit you to disclose a patient’s information to people who do not have a direct treatment relationship with the patient unless you have the patient’s authorization.

Following up by e-mail

E-mail for postoperative follow-up
has not caught on, at least not yet.

The Cottonwood Surgery Center in Murray, Utah, tried e-mail about 1 1/2 years ago but didn’t have a single hit, notes the center’s manager, Rebecca Hales, RN, BS, CNOR.

Though Utah has a high rate of computer literacy, patients still seemed to like the personal touch of the phone call.

“We deduced that when patients go home and are sick, they didn’t want to use e-mail,’’ she says.

The center has been conducting a pilot project to allow patients to submit their preoperative health histories online, which has been greeted with enthusiasm and is being rolled out to eight facilities. The center might try postop e-mail again after that program is established.

How about HIPAA?

“It depends on whether the e-mail includes a patient’s protected health information,’’ comments Tennant of MGMA.

One solution is to give patients a questionnaire before discharge and have them respond by e-mail without using their identifiable health information. Once the e-mail comes into the facility, it needs to be stored in a secure way and password protected.

Cottonwood had a JCAHO survey while its e-mail project was underway. The surveyor, a physician, expressed concern about confidentiality, which the facility had addressed by using encryption, as in banking. The e-mails came to a single account, were printed out by an authorized nurse for the chart, and then were deleted.

“Once we were able to address the confidentiality issue, he was comfortable with it,’’ says Hales. “He took it back to share as a ‘best practice’ from our hospital.”

One report on postop e-mail is in the anesthesia literature. Among potential benefits, the authors say: cost savings, ease in collecting quality improvement data, and potential for increased reporting of unpleasant events. Potential pitfalls include lack of access by all patients, privacy and security concerns, and potential slow responses to messages that might require immediate action.

For surgery centers interested in pursuing this communication avenue, the American Medical Association (AMA) has developed guidelines for physicians on patient e-mail. New guidelines on physician-patient e-mail also have been developed by the eRisk Working Group for Healthcare, a consortium of the AMA, other medical societies, malpractice insurers, and the Federation of State Medical License Boards (www.medem.com).

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Fatigue in health care carries a safety risk

Health care should set specific limits on work hours to eliminate fatigue that poses high risks for patients, advocate authors writing in the New England Journal of Medicine.

Sleep deprivation from extended work hours is a sign of a health care system in trouble, they say, noting hours in health care are much longer than those allowed in other industries, such as transportation and nuclear power.

Residents are the most sleep deprived, but experienced physicians and nurses also suffer.

Health care organizations should assume responsibility for reforming work practices and changing attitudes so exhaustion is seen as an unacceptable risk rather than a sign of dedication, the authors assert.

Cheap labor

Hospitals have a strong financial incentive to have clinicians work long hours. Residents provide cheap labor, and nearly all options for reducing their work hours are expensive.

Reducing work and on-call hours will require restructuring clinical work. Some of residents’ work may need to be transferred to attending physicians or other caregivers.

Patients also may need to change their expectations. For example, patients might need to accept having their surgery postponed at the last minute if their surgeon has been up all night.

If the medical profession does not make meaningful changes for trainees and experienced clinicians, policies may have to be forced on the profession, the authors conclude.


How can we reward our star performers?

Q. We’re looking for an easy-to-administer plan for rewarding employees. We’d like to reward individuals according to their contribution rather than giving everyone the same amount of money. What do you recommend?

A. Money is nice. Time off with pay can be good. Recognition is always welcome. Maybe just a smile and a “thank you” will work.

Everyone is different in how he or she likes to be rewarded. It is up to the individual.

“Well, that is a stupid response,” you say. Not really. Unless you work in a super large center with hundreds of employees, you have the ability to ask someone how they would like to be rewarded.

Some time ago, we forgot to ask people what motivates them—what turns them on about their job? If I am a single parent trying to earn enough to pay my rent, my reward is probably going to be money. If, however, I am supplementing my spouse’s paycheck and working because I like to, I will probably want the recognition of my peers.

Don’t assume it’s cash

One thing I have learned about relationships is that people like it when you listen to what they say. When you act on what you heard, you have won them over. Ergo, if you have a good relationship with your staff—I do not mean that you socialize with them and get together for wild parties—but have mutual respect that comes from taking a sincere interest in what motivates them, then you have the answer to your question. Don’t assume the motive is cash. It rarely is. If you give me cash, a large chunk is going to taxes anyway. I think we make an error assuming our best staff members want money. It doesn’t have to be that hard to figure out. How many of your staff are really contributing to the point that you will go out of your way to find a way to reward them?

It’s like in a restaurant. If someone brings my food and meets my needs, that is what the restaurant owner is paying that person to do. If, however, the wait staff goes above and beyond the basic expectations in their service, I want to show them I recognized the difference with a large tip. Your staff is paid well to do their jobs. In order to be meaningful, rewards to employees should be for “over and above” behavior.

Listen, and plan accordingly

Do this: Make a list of every staff member you think goes above and beyond in his or her duties. Then make time to meet with them on an individual basis, for lunch if you have the time, and ask them this: “Mary, you have gone above and beyond this year at the center. It is noticeable to all of us, and I want to thank you. Please think about a way we can reward you for your outstanding efforts.”

Mary will be flattered and probably a bit flustered. Then jump in with this, “Mary, think about it overnight. Let’s get together tomorrow morning in my office at 10 am and discuss it.”

This way, you are being respectful of her by giving her some time to think about it. She will love you for that respect.

She may surprise you with the following: “I have never been able to go to the OR Manager conferences. Would it be possible if I could go to the next one?” To which you reply, “Absolutely. In fact, take your (spouse) with you and spend a long weekend on us.”

Another approach could be that you know that Mary collects wind chimes. You could surprise her with a handmade chime from, say, monks in Australia. Or you might say, “Mary, I know how much you like wind chimes, and the center would like to buy one to add to your collection. Pick one out and let me know the cost.”

The bottom line: Don’t always assume that you know what people want. Listen to what they say and plan accordingly.

The question always comes up: If you reward those who go “over and above,” how do you avoid complaints of favoritism from the rest of the staff who come in each day and perform their jobs within the parameters of their job description?

To me, this is an easy issue—you let them keep their jobs. If you do not reward those who excel, before long all you have are robots who do the same thing each day, day in and day out, and you do not raise the bar for the rest of the staff. Your staff needs to know that overachievers are recognized for their efforts. One of the nicest rewards I ever got from a boss was her sitting down with me and reading a list of nice things other staff members had said about me with quotes from patient letters that had mentioned me by name.

That, and a $5,000 bonus, was all I wanted.

—Stephen W. Earnhart

Stephen W. Earnhart is president and CEO of Earnhart & Associates, Inc, Dallas. He can be reached at earnhart@earnhart.com

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<td>- located in the beautiful Kansas City area</td>
<td>- located in the attractive central Wisconsin area</td>
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<td>- 383-bed hospital name &quot;One of America's 10 Best Hospitals for Women's Care&quot;</td>
<td>- 36-bed facility with 2,200 inpatients per year</td>
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<td>- 10 OR suites with 10,000 procedures annually, including open hearts</td>
<td>- 4 ORs and PACU with 20+ FTEs, minimal retention and recruitment issues</td>
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<td>- 500+ bed, not-for-profit facility with two campuses</td>
<td>- Not-for-profit, community owned facility comprised of 330 beds</td>
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<td>- 12 suite OR with approximately 75 FTEs</td>
<td>- 9-room main OR, 4-room same day surgery, PACU, GI, lab and pain management clinic with 125 FTEs</td>
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<td>- 395-bed hospital regarded as one of the area's most comprehensive medical centers</td>
<td>- The hospital is comprised of 2 campuses and is currently undergoing a $58 million expansion and renovation project</td>
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<td>- 6 OR suites, PACU, 5,400 cases performed annually</td>
<td>- 6 ORs, PACU, endoscopy, central sterile, ambulatory surgery with 32 FTEs</td>
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No need to regulate opened-but-unused items, groups tell FDA

Hospitals and other health care facilities should be able to continue reprocessing open-but-unused single-use devices without “burdensome, costly, and unnecessary regulation,” the American Hospital Association (AHA) and two other societies wrote the Food and Drug Administration (FDA) Nov 26.

AHA was responding to the FDA’s request in August for comments about the practice. The comment period closed Nov 26.

“We are aware of no scientific evidence that would establish a public health risk with the cleaning, resterilization, and repackaging” of open-but-unused single-use devices, said the letter, also signed by the Association for Professionals in Infection Control and Epidemiology (APIC) and the American Society for Healthcare Central Service Professionals (ASHCSP).

Items not used on a patient “are several steps removed” from potential for contamination compared with reusable devices, which offers a “substantial margin of safety,” the letter noted.

More help on HIPAA

The government issued a new guidance Dec 3 to help answer frequently asked questions about the privacy rule, part of regulations to carry out the Health Insurance Portability and Accountability Act (HIPAA). The compliance deadline for the rule is April 14 for most entities (April 14, 2004 for small health plans).

Among other things, the guidance says health care facilities don’t have to put up soundproof walls to keep conversations from being overheard. And caregivers can leave messages on patients’ answering machines though they should limit the amount of information disclosed.

The guidance is on the web site of the Office of Civil Rights of the US Department of Health and Human Services (HHS).

HHS project to link patient safety data

To make patient safety reports easier to find, the HHS has awarded a $5.9 million contract to a small company that will link reporting systems from several agencies into a new web site.

The project will link reports on blood products, devices, drugs, and patient safety in Medicare-funded facilities. It will tie together information from the Centers for Disease Control and Prevention’s National Healthcare Safety Network, and adverse event reporting systems run by the FDA.

Ultimately, the site will include all safety-related systems operated by the FDA, CDC, and Centers for Medicare and Medicaid Services.

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Washington Post finds little progress in curbing errors

No significant progress has been made in reducing patient deaths or injuries in the 3 years since the Institute of Medicine (IOM) issued its blunt assessment of health care errors, writes the Dec 3 Washington Post.

Progress is lacking despite $50 million that Congress earmarked for research into the causes and prevention of mistakes, four bills on Capitol Hill that would establish error reporting systems, and a group of Fortune 500 companies pressing hospitals to make specific changes in practice to reduce mistakes. Beginning in January, hospitals also are required by the Joint Commission on Accreditation of Healthcare Organizations to show they meet six national patient safety goals.

The reason there is a lot of activity but little progress, according to the Post, is “fierce resistance” by doctors and hospitals to mandatory reporting and other IOM recommendations, lack of oversight by the federal government, and the absence of an effective consumer lobby.

Except for the Department of Veterans Affairs, whose hospitals have embraced the ethic and methods to make them safer, most hospitals have taken few new steps to protect patients from errors, the Post contends.

Less than 3% of hospitals have fully implemented computerized drug ordering systems, which have shown dramatic reductions in drug errors. Wrong-site and incorrect patient surgeries have increased. Interns and residents in teaching hospitals continue to work up to 130 hours a week, often with little or no supervision. Hospital-acquired infections have increased 36% since 1980, according to the Post. The nationwide shortage of registered nurses and the unprecedented demands on emergency rooms have exacerbated the situation.

—www.washingtonpost.com

Effect of data errors on allocating OR time

Steps to resolve data errors in OR information systems, which can be costly and time-consuming, are not necessary to make accurate OR allocations.

This is the finding of researchers who used 1 year of data from a large, tertiary academic hospital to investigate, through simulation, how increasing levels of uncertainty in knowing the actual OR in which cases were performed—known as “room noise”—affect the performance of the OR allocation method.

In most health care facilities, surgeons and patients choose the day of surgery, and elective cases are not turned away. At such facilities, the most effective way to increase efficient use of OR time is to allocate time appropriately to surgical services. This approach uses each service’s historical total hours of cases, including turnover times, recorded in an OR information system.

When facilities first begin to use their information systems for this purpose, they often discover data errors. Most often, errors are identified by there being two cases recorded as overlapping in the same room. Such errors could result in incorrect OR allocations and increased OR staffing costs.

The researchers from the University of Iowa, Iowa City, and Jefferson Medical College, Philadelphia, found that that up to a 30% uncertainty in knowing the actual operating room in which cases were performed had a minor effect on OR allocations to maximize OR efficiency.

At a 30% error level, OR allocations decreased by 4.8%, and costs increased by 14%. Only 1 of 11 surgical services had an allocation decrease at room error rates of less than 25%.


Clogged ERs lead to deaths

Severely injured patients are nearly twice as likely to die on days when Houston’s two biggest emergency rooms are clogged, and ambulances are diverted to other hospitals, according to a study by the University of Texas School of Public Health at Houston.

Between July 1999 and June 2001, about 25% of the patients with severe injuries who required the services of a Level 1 trauma center died on days when Houston’s Ben Taub and Memorial Hermann diverted ambulances to other hospitals. On days when diversion was not as large a factor, only 14.4% of severely injured patients died, according to the Nov 21 Houston Chronicle.

In 1999 and 2000, both Level 1 trauma centers were on diversion status on 33 days. In the first 10 months of 2001, diversion status climbed to 96 days.

The study also found that any trauma patient who was transferred, regardless of injury, was more likely to die than one not transferred.

Experts estimate that Houston needs at least one or two more Level 1 trauma centers immediately and that another might be needed by 2010. The number of trauma care beds has remained steady since 1990, despite a 20% population growth.

—www.HoustonChronicle.com