Supply chain management

What can grocery stores teach about managing OR inventory?

When you go to the grocery store and buy Wheaties, the clerk scans the box. The scanner captures the purchase. Software adjusts the inventory and tells the store when it’s time to reorder and restock. The vendor makes sure boxes get back on the shelf.

Could an OR inventory ever be that streamlined?

Surgery, of course, is a lot different than a grocery store. The priority is on caring for patients, not keeping track of boxes, cans, and bags of potatoes. Urgent needs come up unexpectedly.

But there are similarities. Grocery stores and ORs both have customers that expect inventory to be there when they need it. Both must keep track of a host of products from many suppliers. Both run on thin margins.

When a supply chain executive for West Penn Allegheny Health System in Pennsylvania wanted to improve inventory management, he looked to the grocery industry to come up with a new model.

For an OR team at a Colorado hospital, the quest for a perfect inventory has been a journey of many years and many spreadsheets.

Their stories are in this issue, along with tips for ambulatory surgery centers that seek to strengthen their supply chains.

Supply chain articles
- Page 14: Can OR inventory be like a grocery store?
- Page 16: A quest for a perfect OR inventory
- Page 25: ASCs: Seven steps to a stronger supply chain

Ethics

Should physicians be expected to disclose conflicts of interest?

Should physicians who request products be required to disclose any financial interests they have with the company that makes the product? Experts say yes. But it’s a hot issue, and many hospitals haven’t yet taken that step.

Scrutiny by the government and press is fueling the call for disclosure. In 2005, the federal government began investigating consulting relationships between orthopedic companies and surgeons. In July 2006, Medtronic agreed to pay the federal government $40 million to settle accusations that its spinal implant division had paid kickbacks to physicians as a way of inducing use of its products. A Dec 30, 2006, New York Times article discussed a trend by some spine surgeons to profit by investing in companies that sell screws and other devices they use.

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How are magnets attracting attention and what are magnet hospitals learning from this trend? What is needed to groom the next generation of leaders? Who's your successor? What are magnet hospitals learning that could help their colleagues attract and keep perioperative nurses? How would you describe a patient safety threat that: • is a risk to every person, regardless of age, race, education, or income level • is estimated to cost tens of billions of dollars a year • can’t be detected by a physical exam, blood test, or state-of-the-art diagnostic testing • in the OR, is a significant cause of case cancellations? The problem—low health literacy and other communication barriers. The University of Virginia found that over 60% of adults who come in for surgery have some type of communication barrier, including deafness, effects from a stroke, or literacy or language difficulties, according to Claudette Dalton, MD, an anesthesiologist and educator who is on a mission to address health literacy. “Health literacy” is defined as the ability to read, understand, and act on health information. Estimates are that 45% of the US population—93 million Americans—have only basic or below-basic literacy skills. But patients of any age or background can find it hard to understand health information—legalistic consent forms, medical jargon, confusing drug names, and complex treatment instructions. Many patients don’t ask their clinicians to explain information they don’t understand because they are embarrassed or intimidated. The result can be missed instructions, drug interactions—even wrong-site surgery. Teach back seems like a simple step that could make a big difference in patient safety. Teach back means asking patients to say in their own words the information they’ve just heard. That way, clinicians can tell if the patient has understood what they’ve said. Clinicians can start by saying something like, “I want to make sure I’ve explained this clearly.” Then ask the patient to repeat what was said. This gives clinicians a chance to clear up any misunderstanding. The National Quality Forum advocates use of teach back for informed consent as one of its “safe practices” that should be universally applied. NQF has a report on using teach back at www.qualityforum.org. (Search under “teach back.”) Teach back seems like a simple step that could make a big difference in patient safety. In memoriam Inez Tenzer Tilley, RN, PhD, died March 30 in Panorama City, Calif. She was a leader in perioperative nursing. She had held a number of nursing management positions in California. She was a member of the Los Angeles Chapter of the Association of periOperative Registered Nurses and a winner of AORN’s Award for Excellence. Scholarships have been established in her name by the AORN Foundation and Cal-HOSA, a chapter of the Health Occupations Students of America. For information on the AORN scholarship, contact nharbin@aorn.org. Information on Cal-HOSA is at www.cal-hosa.org.
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A new standard for the first time sets a weight limit of 25 pounds for rigid sterilization containers and their contents.

In recent years, orthopedic and neurosurgery loaner sets, in particular, have gotten bigger and heavier, causing strain for the staff. There are also concerns about whether these big sets can be sterilized and dried.

The standard from the Association for the Advancement of Medical Instrumentation (AAMI) titled Containment devices for reusable medical device sterilization (ANSI/AAMI ST77:2006), “is a long-awaited and sorely needed document,” says Nancy Chobin, RN, SCPDM, a member of the working group that developed the standard. Previously, there was no standard on the manufacture, cleaning, or sterilization of rigid containers or organizing cases.

ST77 includes recommendations for:
- durability of materials
- compatibility with the sterilization process
- biocompatibility of container materials with the devices being processed.

Also addressed are corrosion, performance, labeling, and testing.

The 25-pound weight limit applies to the container, instruments, and any accessories or wrappers when the container load is configured according to the manufacturer’s instructions.

AAMI also says it chose the 25-pound limit because sterilization and drying can be compromised when containers and contents are too heavy. AAMI also consulted the equation for manual lifting set by the National Institute for Occupational Safety and Health.

If a health care facility requests a set that is heavier than 25 pounds or chooses to exceed the weight limit, AAMI says the facility is responsible for verifying that the set can be sterilized and dried.

The standard recommends that facilities validate containers for use with their sterilization methods and cycles. Included are helpful tables with cycle parameters.

AAMI says it recognizes manufacturers will need time to comply with the standard but believes the weight limit is important. AAMI standards are voluntary. They are not legal requirements (unless written into government laws or regulations).

AORN updates packaging recommendations

In concert with AAMI, the Association of periOperative Registered Nurses (AORN) includes a 25-pound weight limit in its revised Recommended Practices for Selection and Use of Packaging Systems.

Two other changes to the recommendations raised questions at the AORN Congress in March in Orlando, Fla:
- AORN is advising that count sheets not be placed inside wrapped sets or rigid containers.

Though there are no known reports of adverse events related to sterilized count sheets, AORN says there also is no research on the safety of toners or papers that have been through a sterilization process. Because of the lack of evidence, the committee thought “this is the prudent and patient-safety thing to recommend,” Chobin said in a talk at Congress. AORN plans to work with some toner and paper manufacturers to see if toxicology studies can be done. A suggestion is to put the count sheet on the outside of the container.

One member of the audience questioned the advice, to applause, saying, “I’m concerned we are basing this on a theoretical risk,” adding she had “significant concern we are sacrificing one safety concern for another.”

- AORN added recommendations on paper-plastic pouches, advising the pouches should:
  —be used only for small, lightweight, low-profile items like 1 or 2 clamps or scissors, not heavy items like drills or retractors because of problems such as wet packs and broken seals
  —not be used in wrapped sets or sterilization containers because the pouches cannot be positioned to assure adequate air removal, sterilant contact, and drying and have not been validated for this purpose.

Instead, facilities should consider types of smaller containers designed to go in larger containers.

Chobin noted, “You shouldn’t use any additional material in rigid contain-

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‘Resonant leaders’ focus on strength, help foster hope and compassion

There is a difference between management and leadership, and the difference can be profound in team-based areas like OR suites, says Annie McKee. “People often have more opportunities to lead one another than we think they do. “If we build a team with resonant leadership, it’s going to be more efficient and more effective.”

McKee, cofounder of the Teleos Leadership Institute and managing director of the University of Pennsylvania’s Center for Professional Development, will give a special lecture titled “Emotional Intelligence/Resonant Leadership” on Thursday, Oct 4, at the Managing Today’s OR Suite conference to be held Oct 3 to 5 in San Diego. Her lecture is sponsored by Cardinal Health, Medical Products and Services.

As an adviser and coach to some of the world’s largest corporations, McKee is dedicated to making good leaders better. She is a coauthor with Richard Boyatzis and Daniel Goleman of the best-selling Primal Leadership: Realizing the Power of Emotional Intelligence (Harvard Business School Press, 2002). Her latest book, written with Boyatzis, is Resonant Leadership: Renewing Yourself and Connecting with Others through Mindfulness, Hope and Compassion (Harvard Business School Press, 2005).

A mindful leader

McKee defines resonance created by leaders as “a reservoir of positivity that inspires passion and motivates people to perform at their best.” Such leadership, she says, “creates a resonant environment that people feel excited about.”

The 3 outstanding characteristics of resonant leaders, she says, are mindfulness, hope, and compassion. Mindfulness, she says, “is where it all starts. Really good leaders pay attention to themselves. Their eyes are open. They’re not fixed in a perception of themselves; they are completely aware of their own patterns.

“As a leader, it’s essential that you are monitoring what you think, what you feel, and how those thoughts and feelings affect your behavior.”

A mindful leader is in the moment and paying attention to herself and thus to others, McKee said. She also focuses on the employee’s or team’s strengths, rather than deficiencies.

“We tend to think that ‘improvement’ automatically means to focus on weaknesses and ignore the strengths,” she says. “One of the most exciting things I’ve discovered is that when we focus on our strengths, it can improve the general effectiveness of the work. The point is to quietly attend to that which we do well and to make sure we don’t leave it out of the equation.”

Deep listening

Hope is another emotionally intelligent component to resonant leadership—but a realistic hope. “Hope is a wonderful human experience. As OR managers can probably tell you better than I, it can actually cause physiological changes. Hope allows bodies to combat stress responses. But people who get wrapped up in unrealistic expectations will be constantly disappointed.”

The other key component to true leadership is compassion, which is not always easy to summon, McKee acknowledges. “Compassion as a value is a noble thing. As a practice it is quite effective in getting us to a goal. But true compassion requires more than just ‘caring’ in a general way. It requires deep listening and empathy in action.”

In her lecture, McKee will explain what makes great leaders and how they can move others to action and high performance. McKee received her doctorate in organizational behavior from Case Western Reserve University and her baccalaureate degree summa cum laude from Chaminade University of Honolulu.

— Kate McGraw

Kate McGraw is a freelance writer in Santa Fe, NM.
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Surgeon leads effort for safer surgery

If you look behind some of the major studies on patient safety in surgery, you’ll find a common name—Atul Gawande, MD, MPH.

He led the well-known 2003 study documenting the incidence of retained items in surgery. He’s just finished a clinical study of a bar code technology to aid sponge counts. He participated in a human factors study that yielded, among other things, the controversial finding that surgical counts competed with other patient care tasks for nurses’ attention and disrupted other activities.

He and his group reported recently on a “surgical Apgar score,” which will be piloted in 6 countries as part of the World Health Organization’s Global Challenge for Safer Surgery.

He’s also a popular author. His new book, Better: A Surgeon’s Notes on Performance, was published in April by Metropolitan Books. An earlier book, Complications: A Surgeon’s Notes on an Imperfect Science (Metropolitan Books, 2002), compiles a series of essays he wrote for The New Yorker while he was a resident.

Dr Gawande is a general surgeon at Brigham & Women’s Hospital and assistant professor at the Harvard Medical School and the Harvard School of Public Health in Boston. He holds a MacArthur Fellowship, which goes to some of the nation’s most creative scientists and artists.

OR Manager interviewed Dr Gawande about his work.

Most of our readers will be familiar with your study on retained foreign objects. What do you see as the future of technology for addressing this?

Dr Gawande: We found that in 90% of cases when something is left behind, the nurses have taken all the proper steps and counted everything, yet something is missed. Often, it’s because of situations that stress the ability to get a good, accurate count and recognize that something is left inside. The number one factor was emergency cases. Number two was an operation where there was a change in the procedure done. The last factor is the obese patient, and I suspect it’s just harder to recognize that something is tucked inside.

What this study told us was that a technological solution is going to be important to drop our current rate of retained foreign objects about 1 in 15,000 operations. That’s about 1 to 2 cases per year for a typical large hospital.

We did focus groups with nurses on various kinds of technological solutions. For a variety of reasons, the focus groups found the idea of the bar code most appealing. So we worked with a company called SurgiCount to develop a bar-coded sponge counting system. Then we did a trial for them with 300 patients, 150 of whom had the usual counting methods and 150 who had the bar-coded sponge system. We finished the study a few months ago, and we’re submitting it for publication.

I think the future is going to be some way to automate the counting process. The dream is that you just wave a wand or have a radiofrequency ID tag in a sponge. Sponges are only about 2 cents apiece, so having a technology that’s affordable and is even more reliable than the current 1 in 15,000 error rate is tricky.

You were involved in a human factors study led by Caprice Christian. One finding was that counting played a surprisingly negative role. Yet counting is a standard of care. Would you please comment on the findings and on counting as a patient safety strategy?

Dr Gawande: I think counting is absolutely necessary. The study involved a surgeon and a human factors engineer, who is not an expert in health care. Interestingly, it was the human factors engineer who provided the most insight. What they looked at basically is the flow of information and work. The study was not intended to be about sponge counts. These were complex cases like APRs [anterior-posterior resections]. The net result was that looking at the work flow of nurses, counts became a bottleneck for them.

The counts took about 15% of the operating room time. At times, the nurses had conflicting responsibilities when they were trying to do the counts, and the surgeon wanted more equipment, or an issue came up from anesthesia. Trying to make it so the nurse is not distracted, but the flow of the case can go on is important. I think the main lesson was that counts are absolutely essential for safety but also can’t interfere with the case. How to remedy that is sort of unclear.

A counting process like radiofrequency ID would allow the nurse not to be distracted and not have to spend a lot of professional time counting things. I think we are a few years away from being able to make it part of any standard. But I think that’s the next step.

You have just published a study on an Apgar score for general and vascular surgery. Why is this important?

Dr Gawande: That gets to a fundamental question about how we make things better in medicine, and it’s evolved across our research group. It’s also the subject of the new book I have out.

The core of it is that a decade ago we weren’t ready to accept our fallibility in medicine and admit it to the public, and now we’re comfortable doing that. Then the question is, what do we do, knowing we’re fallible?

We know that our major complication rate in general and vascular surgery is around 8% to 10%, and we haven’t made a difference in that in over a decade.

Then think about obstetrics. Childbirth was the single most common killer

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for women of childbearing age until about 50 years ago. And now it is 1 in 20,000 women who have a risk of dying in childbirth.

The question is, how did they do that? What turned out to be important is the score developed by Virginia Apgar. She was an anesthesiologist; she never delivered babies, but she was concerned because babies would be born blue, and they would say, ‘It’s a still birth.’ But no one really tried to think, how do we make it so we don’t have this happen?

What she did is to make a score asking, on a scale of 1 to 10, how did the baby come out? That led to the question, ‘Can we make more of those babies have a 10 rather than a 2?’ Within 10 years, that led to dozens if not hundreds of changes.

Obstetricians started to get rid of general anesthesia because they found it was lowering the Apgar scores and started switching to spinal anesthesia. They recognized that routine ultrasound helped to identify problems before delivery. Within 3 years of introducing the Apgar score, we had neonatal intensive care units.

When Virginia Apgar was working, about 5% of kids were born with a score of less than 5, a high-risk grouping. Today it’s less than 1 in 1,000.

An ‘Apgar score’ for surgery

In surgery, when we finish an operation, we can’t tell people how well the patient really did. We can say, ‘Oh, that operation didn’t go too great, or the operation went well.’ Then we wait for the 30-day measure of complication rates.

We thought if we could create a score that lets you know at the end of an operation how well things went, it could potentially make a big difference. In the study, we looked at almost 38 different measures for how a patient does.

It turned out 3 things were the strongest predictors of whether patients would have a complication in a month:

- the amount of blood loss
- the lowest blood pressure during the operation
- the lowest heart rate.

The lower the heart rate, the better the patients did. The lower the blood pressure, the worse they did. And obviously, the more the blood loss, the worse they did.

If a patient has a score of 9 or 10, that meant you had less than a 100 cc blood loss, the mean [arterial] pressure never fell below 70, and the heart rate didn’t go above 65. Those patients had less than a 4% chance of a complication and 0 deaths.

A score of less than 5 meant greater than a liter of blood loss and/or very low blood pressure, and a heart rate that didn’t come down. Those patients had a 14% death rate and greater than a 50% chance of major complications.

That’s very much like the Apgar score. The number we zero in on is, “How many patients have a score of less than 5?” At Brigham, we put in the record the surgical Apgar score for every patient in general and vascular surgery. It has let us identify about 40 patients in the last 3 months who haven’t done well.

Now we’re trying to think, “How can we lower that number?”

Please tell us about your work with the World Health Organization project to make surgery safer.

Dr Gawande: Number one, we want to try to see if we can introduce kind of an OR checklist, a pilot’s checklist, worldwide. The second is, we want to try to see that we have some basic vital statistics that we can collect for surgery in countries around the world. We’re also going to be piloting the surgical Apgar score in 6 countries this fall to see whether it helps.

That sounds like an ambitious agenda.

Dr Gawande: Kind of what the new book is about is the people who have tried to shoot high in medicine have had extraordinary results. There’s a chapter on the folks who said, “Let’s get rid of polio,” and they’ve got it down to 5 countries. They’ve eliminated it in even some of the poorest countries in the world. They did it by marshalling people for a 48-hour immunization of 5 million children because of a single case of polio.

Another example was how military teams in Iraq and Afghanistan have lowered the mortality of soldiers from 25% mortality down to 10% just since the Persian Gulf War.

They did it by thinking big, by being willing to say, “Look, we’re going to have a whole lot of soldiers hurt. Can we make a quantum leap in what we’re doing?”—and they did.

It’s partly by measuring yourself. That’s why I feel one of the most important things we could do is the surgical Apgar. And it’s also by being innovative and empowering people to think about what you can do on the local level to change results. At the end of the day, I think about how can we help the ordinary surgical team, the ordinary hospital get great results?

You know, we don’t have centers of excellence for childbirth—we make sure everywhere that you have a child is safe and reliable. And I think we can do that in surgery.

—Pat Patterson

References


Kids at highest risk of periop med errors

Children are at the highest risk of harmful drug errors during perioperative care—nearly 12% of pediatric errors were harmful, compared with 5% overall. In most cases, the harm was temporary. But 4 patients died, including 1 child, according to an analysis of 11,000 perioperative med errors. The 7-year study was released in March by MEDMARX, a national database for tracking and trending adverse drug events.

The OR was the site of the most errors—and the most harmful errors. Nearly 17% of OR med errors in children were harmful. In one case, a child died.

Among the report’s more than 40 recommendations:

• Dedicate pharmacists to perioperative units to oversee the distribution of medications.
• Better coordinate handoffs between surgical and recovery staff.

The report also alerts patients and their families to be vigilant to protect themselves.

Highlights of the results:

**Outpatient surgery**

Total errors submitted: 3,427

Harmful errors: 2.9%, with no reports of permanent harm or death.

Harm by population: Geriatric, 5.1%; adult 5.1%; pediatric, 3.6%.

The most common errors were prescribing, drug omission, and improper dose—pediatric patients were disproportionately affected by improper dose.

Leading causes of errors:

• performance deficit (failure to perform a task successfully despite knowledge, skills, and abilities to do so)
• procedure/protocol not followed (lack of familiarity with existing procedures and protocols for specific treatments)
• communication (communication that is confusing, intimidating, or lacking among staff, patient, family).

Cefazolin was the drug most often involved in medication errors. In pediatric patients, 25% of errors involved midazolam.

**Recommendations**

• Develop checklists to be completed before patients leave an area to minimize loss of information during handoffs.
• Devise strategies to help staff understand the cause of errors involving medications that have a high risk for harm.
• Empower patients to participate in preoperative safety activities such as marking the surgical site and providing current medications and allergies.
• Develop strategies to ensure preoperative antibiotics are administered at the correct time.
• Implement strategies to communicate allergy and other pertinent patient information to the perioperative team.
• Expand the pharmacy role by having a dedicated perioperative pharmacist.

**Preoperative holding area**

Total errors submitted: 779

Harmful errors: 2.8%. One required life-sustaining interventions. None resulted in permanent harm or death.

Harm by population: Adults, 7.1%; pediatric, 4.2%; geriatric, 2.6%.

Most common types of errors were wrong timing and/or omission of drugs. Handoffs and incomplete documentation contributed to many of the errors. Antimicrobial agents were the medications most frequently associated with errors.

**Recommendations**

• Eliminate potential for accidental administration of neuromuscular blocking agents.
• Ensure sufficient staff for timely administration of preoperative antibiotics.
• Expand pharmacy support so medications are available and prepared in the area they are being administered.

**Operating room**

Total errors submitted: 3,773

Harmful errors: 7.2%, including 12 sentinel events, of which 2 may have contributed to a patient’s death.

What leads to periop med errors?

Main factors included:

• handoffs from the operating room to the recovery area
• lack of oversight of medications during the perioperative period.

Most errors involved antibiotics and pain medications:

• failure to administer preoperative antibiotics
• failure to note patient medication allergies
• errors in setting up IV pumps
• administering medication overdoses to infants.

Poor penmanship, miscommunication, or math errors led to patients receiving medication doses 10 to 50 times higher than they should have.

Harm by population: Harmful errors occurred in 16.7% of pediatric patients—1 was fatal. Adults accounted for 11.3% of harmful errors and geriatric patients 10.0%, with 2 events requiring life-sustaining interventions.

Improper dose was the most common error (32.4%) in pediatric patients. The majority of drugs involved in errors were antimicrobial agents or central nervous system agents, including opioid and nonopioid analgesics.

**Recommendations**

• Call on manufacturers to produce drugs in ready-to-use sterile packages with duplicate labels to avoid errors with labeling.
• Form a team to check surgeon preference cards to ensure appropriate use of abbreviations or acronyms, clarify medications intended for the procedure, and affirm instruments and equipment needs for the case.
• Provide practitioners with patient information, standardized dose charts, and assistive technologies to ensure proper medication calculations and formulations.
• Expand time-outs to allow review of

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Patient safety

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—Judith M. Mathias, RN, MA

Read more about the MEDMARX report on the USP website www.usp.org under What's New, or order the report on the USP website under Products. OR Manager also reported on this study in the March 2006 issue.

Restrict cell phone use, at least near devices, ECRI recommends

lfiting cell phone restrictions isn’t a good idea, especially in device-intensive areas like the OR and critical care units, advises ECRI, a nonprofit organization that researches health care technology. “We’re still recommending avoiding use of cell phones if possible except in the lobby of the hospital or in areas that are not near medical equipment,” says Art Augustine, senior project engineer with ECRI. ECRI’s recommendations are outlined in the December 2006 Health Devices.

If there is a clinical need to use cell phones in areas with medical devices, ECRI advises staying at least 3 feet from any device. “In most studies we’ve reviewed, 3 feet or closer seems to be the distance where interference has been observed,” says Augustine. “Basically, the farther you are from the device, the less the likelihood of interference.”

ECRI continues to give this advice despite a recent report from the Mayo Clinic that found no clinically important interference in tests of 2 cell phones from 2 different carriers. In all, 300 tests were conducted involving 192 devices in various patient care units.

Another study from the Mayo Clinic published in 2005 did find some clinically significant interference. The study ran 510 tests of 6 cell phones with 16 different medical devices; interference occurred in 21% of the tests, with clinically significant interference in 1.2%.

ECRI says published evidence it has reviewed plus reports from health care facilities indicate cell phones still pose a risk, though a low risk. In one incident a couple of years ago, several ventilators alarmed and stopped ventilating when a cell phone was used close by. The ventilator manufacturer determined the cause was electromagnetic interference (EMI) and has modified its ventilators to reduce the effect.

There have also been reports of rate changes in infusion pumps related to cell phones. “There are a lot of anecdotal reports. There are not a lot of well-documented reports, but a number of studies have suggested EMI does exist,” Augustine says. “When you test for EMI, in our opinion, your result is only good for that test. The results may not be applicable to other institutions.” A number of variables affect EMI, he notes, including other radiofrequency sources in the area, the facility’s design, and the number of people and objects in the area that could affect the signal path.

Other technologies

There are alternatives to cell phones, but all have a cost. For that reason, ECRI advises not implementing an alternative solely to reduce potential EMI because the risk is low, but reducing EMI would be a side benefit. Among the options are:

• **Microcell systems.** These are basically mini-cell phone systems in which a cell phone provider (or providers) installs a network of antennas in the facility. Anyone with a cell phone from the same providers can use the antennas to connect to an external cell tower. The antennas reduce the cell phones’ output power, which is a factor in interference. This can be an expensive solution. One option is to install antennas only in areas of the facility where medical devices are used.

• **Wireless Voice over Internet Protocol (WVoIP).** In this less-expensive option, WVoIP phones connect to a wireless network, enabling the phones to operate at low output powers.

• **Cordless phones.** These phones work much like phones in the home, with a base station and cordless phones that can be used within range. The phones have all of the features of a desk phone but can be carried and used with a headset.

For information on the Health Devices report, contact ECRI at 610/825-6000, ext 5891, or e-mail communications@ecri.org.

References


Can OR inventory be like a grocery store?

When Dave Zimba wanted to improve the supply chain for Pittsburgh-based West Penn Allegheny Health System, he started by going to the grocery store.

He observed what happened when he bought a can of tomatoes: The clerk scans the box, and the scanner captures the purchase. Software adjusts the inventory and reorders automatically. Suppliers make sure the shelves get restocked.

Zimba, who is vice president for corporate contracting, wanted it to be just as easy for West Penn Allegheny to order and stock its huge inventory of drugs, cardiac stents, surgical gloves, and thousands of other items its 6 hospitals use every day. And he wanted it to be just as easy for the clinical staff to get what they needed and have the system track what they used automatically.

The solution he found won West Penn Allegheny the 2006 Most Wired Supply Chain Award given by Hospitals & Health Networks.

When Zimba and his team started, they knew their supply chain had a ways to go. They were dealing with more than 2,200 suppliers, complex processes, low fill rates on some items, and incomplete data on rarely used items. The ORs didn’t know how much inventory they had and had stashes in multiple locations.

He met with grocery stores to find out how they managed their inventory. He found they faced some of the same challenges—diverse customers, high product turnover, and a constant stream of new products. But they had much higher customer satisfaction and supply chain reliability.

Concepts he thought might carry over:
- making the system easy to use
- placing responsibility on suppliers to shelf products to ensure availability
- using an electronic “cash register” to charge, monitor inventory, and automatically send orders to suppliers
- assessing “shelf fees” from vendors to help pay for the supply chain improvements.

The new supply chain model

West Penn Allegheny’s new supply chain is built around automated supply cabinets, which serve as the electronic “cash registers.”

“The cabinets provide a lot of inventory functions for us,” Zimba says. “They basically do the charging, decrement of inventory, and create automatic replenishment requests.”

The supply stations met a number of the grocery store criteria:
- They’re simple to use. Supplies are available when clinicians need them. Counting, reordering, and restocking are all done electronically.
- The cabinets are interfaced with hospitals’ information systems for pricing, charging, and chargemaster development. They also communicate data to suppliers for supply replenishment.

Four of the system’s 6 hospitals have their systems up, with the other 2 coming up later this year.

West Penn Allegheny developed new relationships with its suppliers to help support and fund the system upgrades. The model has 2 major elements:
- A “primary business partner” program. West Penn Allegheny proposed to 25 of its key manufacturer suppliers that in exchange for their support, it would steer more business to them by standardizing products and consolidating purchases.
- A rebate program. In exchange for more business, key business partners agreed to give West Penn Allegheny rebates that would be used to finance the new system.

Zimba compares the rebates to “shelf fees” companies pay grocers for premium placement on store shelves.

Dealing with fewer vendors also helps reduce variability and thus costs and inventory management.

To convince managers and staff of the need to standardize, Zimba asked them, “Would you rather have a supply chain you are 72% satisfied with, or a supply chain with much higher reliability and satisfaction? To do that, something has to give—variability.”

He says that minus West Penn Allegheny’s $8.4 million annual investment in IT to support the new supply chain, the process has netted more than $7 million in annual economic improvements. This includes business partner fees, reduced pharmacy and supply costs, better pricing because of standardization, and freight savings.

Grocery store comes to the OR

Supply cabinets are the basic inventory management tool for the ORs, where they are used both for routine supplies and specialty items.

West Penn uses a case cart system, so most of the case picking is done in the central supply department, with the cabinets for backup supplies and spe-
After: Supply cabinets perform a lot of the inventory functions.

At 3 pm each day, the cabinets generate an inventory report, which goes to the distributor. Supplies are delivered during the night in bins labeled for each OR and put away by one person.

Once the system was live for a year, Sullivan could run reports to see what inventory wasn’t moving, enabling the system’s ORs to eliminate $211,000 in unneeded inventory.

She also was able to easily monitor a major brand conversion of endomachinery and suture. With the reports, she could see which surgeons hadn’t converted.

“We now have over 90% compliance with the new brand of suture,” she says.

Product standardization decisions are made through a perioperative services team with representatives from all of the hospitals. Typically, products selected have at least a 20% market share nationwide.

Supply variation has been reduced, though not eliminated. “We don’t have a single orthopedic vendor, but we don’t have 8 either,” Zimba says.

Winning over managers and staff

Change didn’t come easy to the ORs. The new system required OR personnel to think about and plan their supply chain, which they had not done before. To persuade OR leaders the change could happen, Zimba and his team followed these steps:

• mapping the existing process and all the steps involved, then having the leaders confirm that is how the process worked
• documenting where the current process broke down and what the OR staff wanted the process to do
• introducing “enablers,” including the cabinets, data management, supply rationalization, and low unit-of-measure distribution
• showing that as they put each of these things in place, steps in the process would either go away or be improved.

Gradually, they were able to overcome most of the skepticism.

Sullivan notes that the transition needed careful planning. She took a gradual approach, starting with the OR manager and 9 service coordinators. Three coordinators became “super users,” who worked with the other coordinators; they then trained their staff one by one.

“We picked positive nurses and did the orthopedic service first, then rolled it out to the other service lines,” she says. The department now has a supply cabinet coordinator, converted from another position.

Though the ORs resisted the change at first, “now, they say they couldn’t do without it,” says Zimba. “They’ll tell you it’s a lot more reliable, and they have a better understanding of their inventory.”

He says nurse managers tell him, “For the first time, I’m actually on budget.”

West Penn Allegheny, through a program called Fusion SC, offers to work with other organizations to develop the same model. For information, call Zimba at 412/665-3573.
A quest for a perfect OR inventory

A perfect OR inventory—that’s the goal of the OR business management staff at Poudre Valley Hospital in Fort Collins, Colo. They’ve come a long way.

In the past, supplies were kept in the OR. Nurses picked their own cases and “wanted everything at the point of service,” recalls the OR business manager, Steve Stout, RN, BSN. No one had a good sense of the inventory on hand.

Today, the OR is on a case cart system. Preference cards are accurate and up to date. The OR is on an automated perpetual inventory and maintains its own supply database. Billing for surgical cases takes place within 24 hours. OR nurses have confidence supplies will be there.

When Stout first proposed the case cart system, the nurses were reluctant. But he pointed out, “No one is maintaining the inventory now. How many times have you gone to the shelf and not found what you needed? If you let me put it in one location, I promise it will be there.”

The inventory became more automated when new OR software was installed in 2003. “I wanted to be able to use our software to decrement inventory and reorder automatically,” Stout says. That is now possible because the software, Picis OR Manager, has a 2-way interface with the hospital’s Meditech information system and materials management module. Previously, the OR and materials management had separate supply databases.

The inventory journey

Among challenges they’ve faced:

- creating a clean inventory database
- developing a system for updating preference cards
- getting control over the myriad of orthopedic screws, plates, and other small components
- developing a separate inventory for consignment items.

The essential ingredient to making it work—trust. Nurses now trust the case cart system, and Stout has built a trusting relationship with the manager of materials management, David Garner, who gave Stout and his staff control of the OR inventory. Poudre Valley, which has 240 beds, 13 ORs, and a surgical volume of 12,349 cases, carries an inventory of about $2.5 million. A total of 3.5 FTEs are dedicated to OR inventory plus a 0.8 FTE billing clerk.

Inventory cycle

This is how the inventory cycle works today:

1. A case is scheduled in the Picis system.
2. A preference list and pick list are attached to the case.
3. The case cart supplies and instruments are picked.
4. During the case, the circulating nurse circles what was used on the paper preference list, crosses off what wasn’t used, and changes quantities if necessary.
5. The preference lists are given to the biller. The next morning, she pulls up the case files and modifies the supply usage according to the preference lists. She sends the patient charges to the hospital’s accounting system.
6. The biller sends the supply files to the materials management system, and the inventory is decremented. The system keeps track of quantity on hand and reorder points.
7. Each day, the purchasing department automatically pulls a list of supplies at the reorder point and sends electronic purchase orders to vendors.

One of the hardest parts of setting up a perpetual inventory system is figuring out the timing, notes the OR’s application specialist, Brett Preston. When in this cycle do you have the system decrement the inventory? If the inventory is decremented too early, you may reorder before you need to. But if you decrement too late, you may not reorder soon enough.

“We have gone through multiple iterations on this, trying to find the right window,” she says.

Here’s how the staff have addressed their major inventory challenges.

Cleaning up the supply database

Creating a clean database was perhaps the most important step in managing the inventory—and one of the biggest hurdles, says Stout.

Before the old information system was shut down, the item list of 7,000 to 8,000 entries was downloaded to Excel spreadsheets. Stout and his staff spent hours sorting the list and weeding out duplications.

“We had 15 names for red rubber catheters,” among other duplications, he says.

They set up a new naming system that goes from general to specific and always includes the size, if applicable. For example:

- stockinette, ortho, lg, imperv
- drape, Ioban, x-lg, 3M
- stapler, skin, pistol grip, 35w
- clamp, insert, fibra, 60 mm, sz 3.

Each entry now has an item number; manufacturer’s catalog number; stock number (specific to the department);
Supply chain management

Creating a clean database was key.

“It used to be team leaders would give us a sticky note that said, ‘I need this,’” says Preston. “Now they know there is a process they need to follow.”

Just-in-case supplies

There are supplies nurses want to have on hand even though they aren’t routinely used. Poudre Valley’s solution is “have-available” bins. The plastic bins are labeled, sealed with a plastic tie, and have an inventory list inside. Have-available bins are listed on the preference list and placed on the case cart. If not opened, the bin is simply returned on the case cart, and nothing is decremented from inventory. If the bin is opened, ideally, the nurse marks any items taken on the preference list and the bin’s inventory list. Case cart techs then replenish and resell the bin. If the bin is opened, and the list isn’t marked, all of the contents are inventoried.

“This is our compromise with the nurses that we will provide them with supplies at the point of service. It also helps us control inventory at the same time, even though it’s time-consuming,” Stout notes.

Items picked for a case but not used are crossed off on the preference list and returned on the case cart. The inventory specialist enters the returns after patient billing is completed and corrects the inventory decrement, which takes 5 to 10 minutes. Previously, returns were entered on handheld computers by the case cart techs, which took too much time.

Managing plates and screws

One of the OR’s biggest inventory headaches is keeping track of the hundreds of orthopedic screws, plates, and other hardware, which account for about $1.5 million of the $2.5 million inventory. Poudre Valley used to rely on the vendor’s sales rep to track the inventory and reorder, but he had no incentive to keep the inventory lean. A physical inventory for these items took 6 hours.

Stout and his staff decided to take over the inventory and reorganized it by product number. “Before, you might have one type of screw in multiple trays. You could have 25 on hand and not know it,” he notes.

Now these components are in the stock dictionary and tracked like the rest of the inventory. To capture screws and plates for billing when used, nurses write the product number on the preference list, which is sent to the billing specialist, where it is entered for charging and sent on to the materials management database to decrement the inventory.

“Now we can look in the computer and see a history of our usage,” he says. “We can set our maximums and our reorder points.” With the new inventory system, “we saved $50,000 in 1 month in hardware costs,” he says. The physical inventory can now be done in 2 hours.

What would they still like to achieve?

The perpetual inventory system is proving to be pretty accurate.

“The last time we did a physical inventory, we were off by less than $7,000—we missed one tray,” Stout says.

Though the system has come a long way, there are things they’d still like to do. They’d like to have an analyst who could mine the data to look at usage patterns.

“We don’t have enough standardization,” he says.

But they feel good about how far they’ve come. Recently, a vendor offered to take over the case-cart picking and deliver the supplies in totes each day.

“I didn’t see the value in it,” says Stout. “When the guy looked at our system, he said, ‘I can’t do it better.’

He adds: “You have to have dedicated people. It has taken us a long time.”

Poudre Valley Hospital was named a Top 100 hospital for 2007 for the fourth year in a row and was named a “Most Wired” health system in 2006, 2005, and 2004 by Hospitals & Health Networks.

Do you have an OR inventory success you’d like to share? Contact Pat Patterson, editor, for a possible interview at ppatterson@ormanager.com.
Index identifies outpatients at risk for hospital admission

Researchers have developed a scoring system they say can help identify patients at risk for admission after outpatient surgery:

**Outpatient surgery admission index**

Assign 1 point each for:
- being 65 years or older
- an OR time >120 min
- cardiac diagnoses
- peripheral vascular disease
- cerebrovascular disease
- malignancy
- HIV-positive status
- using regional anesthesia.

Patients with a score of 3 or higher have 21 times the odds of being admitted as those with a score of 0 or 1. Patients with scores of 4, 5, or 6 have 32 times the odds of being admitted as those with a score of 0 or 1, say the researchers.

They developed the index after analyzing data from about 784,000 patients having surgery in hospital-based and freestanding ambulatory surgery centers in New York State during 1997.

The analysis confirmed that the admission rate was low, about 1 in 180, or 0.6%. In all, 19 patients died (1:41,240). Previous estimates place unplanned admissions at about 0.5% to 1.5% of ambulatory surgery cases.

The authors note that the index could be helpful in assessing patients with complex medical conditions, more of whom are having surgery on a same-day basis.

They note that their study has limitations. The database is 10 years old, though they note that it is the only public data that includes such a large number of procedures, patients, and amount of information. Most of the procedures were hospital outpatient procedures rather than from freestanding surgery centers.


Correction

In the article on flash sterilization in the March OR Manager (pp 17-18), under the section titled “Flash sterilization is documented,” the first sentence should have said, “The AAMI standard states that, ideally, every reprocessed medical device, especially an implant, should be fully traceable to the patient on whom it is used or in whom it is implanted; such traceability can be accomplished by recording the sterilizer load identifier on the patient chart or the patient name on the load record” (p 79).

The list of items to document in the article were examples, not a minimum list.

OR Manager regrets the error.

Have an idea?

Do you have a success story to share on attracting and keeping staff, preference card management, or staff incentives?

Contact Pat Patterson, editor, for a possible interview at www.ormanager.com.

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When 2 of its hospitals came close to shutting down their total joint replacement programs because of rising costs, a Midwestern health care system knew it needed to take a new approach to orthopedic implant purchasing.

The system tried demand matching several years ago, but the project felt flat. In its competitive market, surgeons weren’t receptive to standardizing to just a couple of implant vendors. Instead, like many others, Milwaukee-based Wheaton Franciscan Health-care decided to adopt a capitated approach to implant pricing.

After the system’s leaders shared its data about the impact rising implant costs were having on its financial health, surgeons got behind the effort. Some even agreed to withhold their business from vendors who didn’t sign the capitated contract.

Rising implant costs are hitting a lot of organizations hard. “Only 1 in 10 hospitals is making a profit on orthopedic implants, and I doubt they’re making much of a profit,” says Joseph Volpe, vice president for supply chain management for Wheaton Franciscan, which has 9 hospitals in southern Wisconsin and eastern Iowa.

He estimates physician preference items account for 40% of hospitals’ total average medical supply spending in their area.

The Upper Midwest, Wisconsin in particular, has some of the nation’s highest health care costs, “so our prices were already way above the national averages,” he says.

Because most surgeons in Milwaukee work at multiple hospitals, they can move to another facility if the hospital puts pressure on them to switch implant brands.

**Upfront about implant costs**

Volpe and Terri Kendrick, system director of purchasing, found most of the surgeons didn’t have a good understanding of the hospitals’ costs and didn’t know if they were making or losing money.

When one site came close to closing its total joint program and a second was seriously considering it, the surgeons started paying attention. They knew that could affect their practice.

Volpe and his team were upfront with the physicians about their financial plight. The system’s common materials management information system allows them to pull their data on implant costs.

Once the surgeons saw the data, they were much more accepting of the capitated arrangement, Volpe says. In a capitated approach, the hospital sets prices it will pay for certain implant constructs.

Vendors who agree to the price can participate.

**Deadline for contracts**

“We went for pricing that was much better than what we had but not necessarily the best in the country,” he says. “We met with all the vendors and told them what we were doing. We set a deadline for them to sign the contract, or we would not do business with them for 6 months.” Two signed, but 4 did not, and Wheaton Franciscan stopped buying their implants for 6 months. By the end of the 6th month, all had signed.

At 2 of the high-volume facilities, the surgeons put muscle behind the plan. They said that if the vendors didn’t sign, they wouldn’t use their products for 6 months. In one hospital, the chair of orthopedics backed the plan. In the other, the president was the champion, working through the medical executive committee and the orthopedic section and even going to the board for approval.

Currently, 7 vendors are participating, all under the capped contract.

**Moving on to cardiac rhythm**

Wheaton Franciscan is taking a similar approach with cardiac rhythm management devices.

“We currently have 2 vendors under contract, and 2 on the outs,” says Volpe, and volume is beginning to move away from the noncontracted vendors. Those vendors will be kept at arm’s length for about 6 months or so to give vendors that did sign a chance to gain market share and consolidate their relationships. At the end of the 6 months, he expects all 4 vendors to be under contract.

Wheaton Franciscan hasn’t tried the capitated approach for spinal surgery because there are so many variations in procedures but is using a percentage discount instead. “We’ve had some success. We’re not done; we’re still working on it,” he says.

**Comparing notes on pricing**

Previously, Wheaton Franciscan accepted the vendors’ assertion that if its hospitals moved more of their implant business to them, it would get better pricing.

But after it consolidated its purchasing system and had the ability to compare data across its facilities, “it became apparent to us that is not the case,” Volpe says. “We had vendors in different areas that had huge market shares, but those hospitals were paying more than the others. They know it’s difficult to get the physicians to switch vendors.”

Now, he says, the approach is to say to the vendors, “Selling your product is not our job. Let’s get a reasonable contract in place, and we’ll do business with you.”

To the physicians, the system’s leaders have said, “We don’t want to tell you how to practice medicine. We don’t think we’re the people to tell you what products to use. But we want you to work with us to get the vendors to charge us what is reasonable so we have a viable business.”

There are 2 keys to making this approach work, he says: “You have to have good data, and you have to build relationships with the physicians and the administration.

“It sounds simple, but it’s not.”

Data on implant costs wins MD support

They were upfront about their financial plight.
Please see the ad for
SKYTRON INC
in the OR Manager print version.
All speakers at the American Academy of Orthopaedic Surgeons (AAOS) meeting in February began their talks with a disclosure statement. Though the academy has required disclosure for a long time, the statements are now made aloud. AAOS will soon vote on an expanded code of ethics that is more specific about financial ties.

Last year, the North American Spine Society (NASS) began requiring members to disclose any financial ties for presentations and other society activities.

Surgeons we spoke with underscore that collaboration with industry has many benefits that have improved care. They also acknowledge a need for more openness.

"Essentially, what is at stake is public trust," says Stuart Weinstein, MD, a pediatric spine surgeon and AAOS past president.

NASS president, Richard Guyer, MD, told OR Manager: "The majority of these relationships are extremely positive. But when these relationships exist, the patient needs to be aware of it, or the hospital in the case of purchasing, so it is always aboveboard."

"I think the main issue is transparency," he continued. "I think an OR has the right to say, "Dr Jones, do you have an interest in this company? What is your relationship?"

Under the NASS policy, physicians must disclose the specific types of arrangements and dollar levels involved, which was the subject of much debate; Dr Guyer says. Physicians must check whether the remuneration is none (less than $250 per year); minor ($250 to $10,000 from all sources); major ($250 to $10,000 or more than 5% company ownership).

Dr Guyer says his own practice, the Texas Back Institute with 11 spine surgeons, has adopted a policy of disclosure to patients.

When patients sign in, they get a note stating that during their treatment, the physician may recommend an imaging study or use a product in which the physician has an investment.

"Patients don’t mind," he says, because it indicates the physician is on the cutting edge of technology. But if patients aren’t told and find out later, it can look bad, he notes.

Orthopedists expand statement
AAOS has proposed expanding its conflict-of-interest statement to be more specific—including an expectation that surgeons will disclose any financial interests to organizations they work with. A vote by members is expected soon, and the revision is expected to pass.

The proposed standards say, for example, that an orthopedic surgeon:

• "who has influence in selecting a particular product or service for an entity shall disclose any relationship with industry to colleagues, the institution, and other affected entities
• "shall disclose to the patient any financial arrangements with industry that relate to the patient’s treatment, including the receipt of inventor royalties, stock options, or paid consulting arrangements with industry
• "shall accept no direct financial inducements from industry for utilizing a particular implant or for switching from one manufacturer’s product to another."

The statements are termed “mandatory minimum standards,” and violations can be grounds for a formal complaint and action by the academy.

Says Dr Weinstein, “We have had a code of ethics for many years. There is really nothing new about that. But we thought we should clarify this for our members so it was less subject to interpretation.” He estimates 98% of board-certified orthopedic surgeons belong to the academy.

“Drumbeat for disclosure”
“I think the drumbeat for disclosure is getting louder," says Charles Rosen, MD, FACS, a spine surgeon and outspoken critic of surgeons’ ties with industry. "It’s coming from the 90% of physicians who are the silent majority. It’s also coming from patients and the law." He is associate clinical professor of surgery at the University of California, Irvine.

Dr Rosen says he was disturbed enough about conflict of interest that he founded the Association of Ethical Spine Surgeons last year, which has about 200 members (www.ethicalspinesurgeon.org). Members agree not to accept compensation from companies for using any devices the companies make nor to have ownership in a distributorship for spine-care devices.

Dr Rosen says he decided to start the group after treating patients who had problems after receiving the Charité artificial disc. He says the patients came to him after hearing about his criticism of the disc’s design and of the study that led to the Food and Drug Administration's 2004 approval of the disc. He says the study was flawed because it compared the Charité disc to types of spinal fusion which have since been largely abandoned and did not report all complications.

“I was seeing a lot of patients with disabling symptoms and excruciating pain who had lost their jobs and their houses,” he says. “As I looked into this, I saw that a lot of the physicians pushing this have a financial interest, whether royalties, consulting, or stock options.”

Bias can creep in
Physicians asked to disclose their financial arrangements may say, “I would never let that influence my decisions about patient care.”

But studies show industry sponsorship does create bias. The influence is often subtle and may be unconscious, notes Sohail Mirza, MD, an associate professor of orthopedics and neurosurgery at the University of Washington, Seattle, who has written about conflict of interest in orthopedics.

He favors disclosure.

“If the physician stands to personally gain, or use of a device would directly benefit the physician in some way, at the very least, I think patients need to know about that. I personally think that’s a dangerous situation to place oneself in,” he told OR Manager.

Physicians may argue that if they must choose a spinal device, why not pick the one they are most familiar with, even if they stand to benefit?
Hospital policies vary widely on disclosure of MD conflicts

Hospitals vary widely in their policies on physician disclosure of financial interests. Many hospitals still do not have a policy. Some have policies that are quite specific, expecting physicians to check off the types of ties they may have.

Academic medical centers are the most likely to have policies because of federal oversight of research involving human subjects. But many community hospitals still do not.

According to Peggy Naas, RN, MD, MBA, an orthopedic surgeon and vice president of the physician preference management program for VHA Inc, the question of disclosure comes up often in discussions with member hospitals.

“I always recommend disclosure, because then you don’t have the concern about lack of disclosure,” she says.

Should disclosure be required?

“I recommend that it be requested and strongly encouraged,” Dr Naas says. “I think that sets the stage for an open and honest relationship.” Typically, hospitals that ask for disclosure request physicians to divulge the type of arrangements they have with companies but not the amount of remuneration they receive.

Many hospitals think physician disclosure is important because of the federal government’s scrutiny of financial ties between physicians and device companies. If a surgeon orders a product and has an interest in the company that makes it, and the hospital buys the product and puts it on its cost report, there is concern that could be a compliance risk.

A strict policy

The University of Washington, Seattle, has a strict policy requiring any physician requesting an implant or investigational device to submit a request form to the Implant and Investigational Device Committee.

The physician must disclose any financial interests held within the past 5 years or that are expected. Financial interests are defined as “any direct or indirect beneficial interest in the company manufacturing or selling the device or in the device itself.” Physicians who have such an interest must check whether it is in the form of:

- salary or other monetary recognition (eg, consulting fees, honoraria, travel, and accommodations)
- equity interests (eg, stocks, stock options, or other ownership interests)
- intellectual property rights (eg, patents, copyrights, and/or royalties from those rights)
- other financial interests that could benefit or be perceived to benefit from the acquisition of the device.

Disclosure and credentialing

Memorial Hospital in Springfield, Ill, with 562 beds, is introducing a conflict-of-interest policy this year for the entire medical staff. In meeting with physician leaders, the chief medical officer, Robert L. Vautrain, MD, says, “We’ve explained that this puts us all at risk if we are not up front and candid.” Dr Vautrain has taken an active role in the hospital’s value analysis program.

The plan is to have physicians sign a conflict-of-interest statement when they are recredentialed every 2 years. Physicians who request a product are also expected to complete a form that includes a conflict-of-interest disclosure.

At Stanford University Hospitals & Clinics, Stanford, Calif, all members of the faculty are expected to sign a conflict-of-interest statement at the time of recredentialing, says Lawrence M. Shuer, MD, the chief of staff. Many committees also have disclosure forms.

Regarding purchases, “I think physicians need to identify any conflicts of interest, such as stock ownership, and they should recuse themselves from any decision making regarding the purchase,” Dr Shuer says.

Still, financial disclosure is a touchy subject. The trend is toward expecting physician disclosure. But some OR directors at community hospitals said their organizations either are still working on a policy or aren’t ready to address the issue with physicians. The move can be politically risky, particularly in a competitive market where physicians could take their business to another facility.

A copy of the University of Washington’s disclosure form is in the OR Manager Toolbox at www.ormanager.com.
Seven steps to a stronger supply chain

With supplies and staffing being an ambulatory surgery center’s 2 major costs, no ASC can afford to be without a good strategy for managing its inventory and supply costs. Strong partnerships, teamwork with physicians, a relentless focus on cost management, and smart use of technology are some of the ways to manage your ASC’s supplies effectively.

ASC experts offered these 7 steps for managing the ASC supply chain.

Choose the right partners

Selecting the right partners is a key step. Supply chain partners include your group purchasing organization (GPO), distributor, and specialty vendors for physician preference items like orthopedic implants, notes Larry Lane.

A GPO can be a strong ally because it enables a surgery center, regardless of size, to take advantage of high-volume discounts. But GPOs offer more than good pricing. They should help monitor your purchases to make sure you’re taking advantage of their contracts and getting the best pricing. (Tips for selecting a GPO are in the sidebar, p 26.)

Your distributor and drug wholesaler are key partners, too, says Lane, a former sales and GPO executive who now heads Instra-MED Technologies, LLC, an Indianapolis-based consulting firm focused on surgery centers. He will present a session on inventory management at the American Association of Ambulatory Surgery Centers meeting in May in Denver (www.aaasc.org).

Lane suggests asking these questions when selecting a distributor and wholesaler:

• Do they offer templates of products by specialty for surgery centers? That indicates how in tune they are with the ASC market. It also helps if you’re stocking a new center.
• Do they have an electronic catalog so you can look up pricing on the Internet?
• Do they provide materials utilization reports? These reports, produced every 6 to 12 months, show your purchasing history by manufacturer so you can monitor your pricing.
• Do they provide a connecting report? This report identifies what GPO contracts your ASC has been connected to by your distributor.
• What is the distributor’s markup cost? This is the distributor’s fee, also called the cost-plus. You need to ask because the fee is blended in with the actual pricing. It typically ranges from 6% to 15%, depending on volume.
• How often are deliveries? Generally, deliveries are made twice a week. That allows you to plan for maintaining your inventory and/or your par levels.

Specialty vendors are important partners because they sell some of the most expensive items your ASC purchases, such as orthopedic implants, which generally aren’t covered by GPO contracts. Usage and cost of these items need to be closely monitored. Like your distributor, your specialty vendors should provide a materials utilization report. You’ll also want to keep your own records to make sure you are charged accurately for what was used.

Another consideration: Does the vendor provide in-service education? Many vendors provide education on their products at no charge.

Use consignment

“Put as much on consignment as you can. That’s critical, especially in orthopedics,” advises Joseph Zasa, JD, of Woodrum ASD, an ambulatory surgery development and management firm. With consignment, you avoid tying up the center’s own dollars in expensive inventory.

The most obvious item to consign is intraocular lenses. Orthopedic screws, plates, and anchors can also be put on consignment.

“Your surgeons to work with you on this,” says Zasa. Orthopedic reps sell primarily to physicians. If the company thinks it has all of your business, it’s less likely to consign. But if it’s afraid you’ll give the business to someone else, it might.

Continued on page 26
Ambulatory Surgery Centers

Checklist for selecting a GPO

Questions to ask if you’re choosing a new group purchasing organization, suggested by Larry Lane, a surgery center supply chain consultant.

- **Does the GPO have a specialty portfolio?**
  For example, does it offer contracts for orthopedics, eyes, and GI endoscopy? That’s helpful if your center just starting up or launching a new specialty because it gives you a template to work from.

- **Does the GPO provide a cost analysis service?**
  The GPO should audit your purchases at least every 6 months to see if you are taking advantage of its contract pricing.

- **Does the GPO provide contract review?**
  The GPO should review your buying patterns to see if you’re taking advantage of their contracts. They should also review your current contracts to see if there are alternatives that could save you money.

- **Does the GPO charge a membership fee?**
  In the past, some associations charged ASCs membership fees to use their GPOs. That’s largely gone away. If the GPO does charge a membership fee, ask to have it waived.

- **Does the GPO have a relationship with your current distributor?**

- **Does the GPO have an Internet-based catalog?**
  That’s the state of the art for doing business these days.

- **Does the GPO have a capital equipment guide?**
  Do they maintain a separate electronic catalog for these high-ticket items so you can easily see what’s available? Some GPOs will help with budget projections for capital equipment.

- **Does the GPO do group buys?**
  Some GPOs offer group buys of capital equipment like sterilizers, offering an additional discount for a limited time. This can save you an additional 10% to 15%.

Go with one distributor

Lane recommends consolidating purchases with one primary med-surg distributor and one drug wholesaler that you trust. One of the tactics of secondary distributors is to offer loss-leader deals that make it tempting to switch. Then they raise other prices to compensate, and you end up paying more. He suggests using secondary distributors only for items the primary distributor doesn’t carry.

Another advantage of using one distributor—you cut down on the number of purchase orders. The cost of a single purchase order runs $43 to $53, including labor. With a distributor, you can save by combining multiple purchases in one PO.

Get automated

“A good IT system is an absolute necessity to operate an ASC,” says Zasa.

“I argue that it will pay for itself if used properly.” One area it helps you manage is inventory.

Load your inventory into the system as soon as possible. Your distributor may be willing to do this for you. If not, Zasa says it may be worth paying to have it keyed in. Then you will be able to get the reports you need to manage supplies.

Distributors have technology tools to help manage your inventory—available at no charge, adds Kimberly Alvord, director of materials management for National Surgical Hospitals. The distributor can help set your center up with electronic purchasing, enabling you to place orders through your IT system directly to the distributor without keying the data into a website. If you place orders electronically, the distributor may give you a small discount.

“Your confirmation comes back electronically. You’ve eliminated the paper, the rekeying, and the phone calls to customer service.” she notes. “This also works out well for the distributor because it streamlines their process, too.”

Distributors have other technology tools. For instance, they may be able to bar code your shelves and bins and provide handheld scanners at no charge. The scanners can dock to a PC and upload orders to the distributor.

Obtain best pricing

Three tactics can work together to drive further savings, Lane suggests:

- contract utilization saves 1% to 2%
- standardization saves 1% to 3%
- consolidation saves 2% to 4%.

Here’s how they work together: If you standardize a product line—for example, reduce gloves from 23 types to 5—you may be able to consolidate your purchasing to fewer companies. If those companies are part of your GPO contract, you may qualify for a higher contract tier because you are delivering more volume to that vendor, earning a larger discount.

An added benefit—by standardizing, you have fewer products to stock and manage.

Lane is not a fan of rebates. Rebates put the burden on the customer to claim the savings.

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Is your ASC leaving money on the table?

Second in a series of articles on improving revenue.

Being paid the right amount for your services starts before a procedure is even performed. Scheduling, insurance verification, and precertification are all crucial to making sure your ambulatory surgery center (ASC) receives the proper reimbursement. Your surgery scheduler and insurance verification personnel need to know the key questions to ask so the right information is available for coding and billing. If steps are missed, claims can be denied.

The previous article covered scheduling issues. This article focuses on insurance verification and precertification.

Verifying the patient’s insurance

Verifying insurance benefits may seem basic. But it’s worthwhile to make sure your staff is covering these fundamentals.

• Be sure your facility verifies insurance benefits for every patient. Verify the information directly with the insurer. Make sure coverage will be in effect on the date of service.
• If the case is related to workers’ comp, call the appropriate carrier. Be sure to obtain all the payer’s requirements to ensure proper reimbursement.
• Determine the copayment and deductible.
• Obtain information about any secondary coverage the patient may have and verify that also.
• If your ASC is not a participating provider with the payor, find out the benefits for a nonparticipating provider. If the plan is an HMO, there may be no benefits for out-of-network providers, and your claim will be denied.
• Find out the payer’s payment policies for nonparticipating providers. If the check will be going to the insured, be sure you know that so you can arrange for the patient to sign the check over to the facility.

• Record all information in detail. Your ASC should have a form for this purpose. Document the name of the person at the payer’s office who verified the information, including the last name or at least the last-name initial. Don’t just write, “spoke to Debbie.” There may be 10 Debbies at that company.
• Have the front-desk staff copy the front and back of the patient’s insurance card and driver’s license (or the responsible party’s if different).

Is a precert needed?

When verifying the insurance, ask whether a precertification or authorization is required for the procedure being performed. Find out the correct phone number for the authorization, which may be different from the one on the patient’s insurance card.

Remember that obtaining the precertification does not mean the patient has insurance benefits and does not substitute for insurance verification. These authorizations are usually performed in a different part of the company or even by a separate company. Some additional tips on precertification:

• Inquire about authorization requirements for all of the procedures being performed, not just the first procedure listed on the scheduling form. Even if an authorization isn’t required for the first procedure, it may be required for the second. If the question isn’t asked, part or all of the claim could be denied.
• If procedures originally scheduled or planned are not performed, or additional procedures are done that are not authorized on the front end, call the payer’s precertification department immediately after the surgery to inform them of the change. Many payors require notification within 24 hours after the procedure is performed if there is a change from the originally authorized procedure. These are a couple examples of the types of precertification issues that can arise.

• The physician’s office schedules a case with the code for a diagnostic arthroscopy of the knee. But when the patient is in surgery, the physician discovers a tear of the lateral meniscus, for which he performs a lateral meniscectomy, and a tear of the medial meniscus, for which he performs a medial meniscectomy.

Both procedures are billable with the 29880-LT code—which is different than the code for just a diagnostic arthroscopy. If the ASC checked with the payor at the time of scheduling and found a precertification was not required for the diagnostic arthroscopy of the knee, the facility needs to call back within 24 hours after surgery to inquire whether a precertification is required for the medial and lateral meniscectomies that were actually performed.

• A surgeon’s office schedules a gynecologic laparoscopy. But the surgeon actually performs a more extensive laparoscopic ablation of endometriosis procedure (code 58662), which is a different code from a diagnostic laparoscopy.

Again, the facility should call within 24 hours after surgery to inquire whether a precertification is required for the ablation procedure actually performed.

“Claim denied”

These are some common oversights in preauthorization that can lead to your facility having a claim denied:

• The ASC relies on the physician’s office to obtain the precertification for a procedure—but the physician’s office didn’t obtain the precertification, so the facility’s claim is denied.
• The ASC relies on the physician’s office to obtain the precertification, and the physician’s office does so. But the office does not give the ASC the precertification number, and no one at the ASC follows up on it. The facility’s claim is denied.
• The ASC obtains a precertification...
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ASC supply chain

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“A lot of times what happens with rebates is that people forget about it,” he says. “Most people want the price at the pump. They don’t want to deal with rebates. It’s another thing to monitor.”

Monitor your pricing

Once you’ve worked to lower your prices, make sure you’re actually getting that pricing. Most ASCs don’t have the personnel to do the monitoring. They need to rely on their GPO, distributor, and drug wholesaler to give them quarterly reports.

“That’s where a good partner comes in,” says Lane. “They should be sitting down with you and identifying opportunities for cost savings based on your trends and utilization.”

The distributor should be reviewing your pricing to be sure you’re taking advantage of contracts and best pricing. The GPO should be providing information on better pricing and identifying pricing opportunities you could gain by moving to other clinically acceptable products.

Specialty vendors should also recognize your standardization and consolidation efforts by giving you better pricing.

“It’s about utilizing those partners. You need to pick the right partners because they are going to be accountable for helping you to maintain your pricing,” he says.

Benchmark your supply costs

National benchmarking reports can help you see if your supply costs per case are in range. Two sources of benchmarking information are FASA Inc (www.fasa.org) and InforMed (www.informedllc.com).

If your supply costs are substantially over the median, say by 10%, it’s time to start probing, Zasa suggests. Three of the most likely reasons:

• You bought more supplies than you need, and the cost got expensed.
• Some surgeons use more expensive supplies than others. Consider costing out surgeons’ preference cards for your highest volume procedures to compare what physicians are using. Enlist their support to see what’s necessary and what isn’t.
• You’re not getting the best pricing from vendors.

With cataract surgery, the cost is usually lens driven, Zasa notes. With orthopedics, a lot is vendor driven, meaning the vendors sell to the surgeons to entice them with newer, more expensive technology.

An important note about monitoring supply costs. Most surgery centers use the cash method of accounting, meaning their reports reflect income when actually received and expenses when actually paid. If you buy too much inventory in one month, supply costs will balloon, even though they haven’t yet been used on cases.

“It looks like your inventory costs are out of control, but they really aren’t. You had someone over-order,” he says.

If you use this accounting method, you will need to develop reports that link the inventory costs to the actual spending.

For more on ASC benchmarking, see the January 2007 OR Manager.

Larry Lane can be reached at indy_lane@msn.com. The website for Woodrum ASD is www.woodrumasd.com.

Money on the table

Continued from page 27

number for the case but does not put the precertification number on the claim form. The facility’s claim is denied.

• The ASC does not obtain a precertification number for all of the procedures performed. The facility’s claim is denied.

• The ASC obtains the precertification and puts the precertification number on the claim form. But the claim is denied for “no precert obtained” or “no authorization obtained”—and the ASC does not fight the denial by providing proof to the payer that a pre-certification was obtained.

These are all ways ASCs can leave money on the table.

—Stephanie Ellis, RN, CPC Ellis Medical Consulting, Inc www.ellismedical.com

CPT codes are copyrighted by the American Medical Association.

Conflict of interest

Continued from page 24

adopting more rigorous disclosure policies for research they publish. Guidelines of the International Committee of Medical Journal Editors, updated in 2006, call for participants in peer review and publication to disclose all relationships that could be viewed as a potential conflict of interest (www.icmje.org).

—Pat Patterson

The AAOS proposed statement is at www.aaos.org/industryrelationships.

References


Nominate OR Manager of Year

Each year at the Managing Today’s OR Suite conference, a manager or director is named OR Manager of the Year. This year’s conference will be Oct 3 to 5 in San Diego.

The OR Manager of the Year will receive an expense-paid trip to the meeting, including airfare, hotel, meals, and registration. The winner will also receive a Kimberly-Clark Health Care scholarship to the Georgetown University Healthcare Leadership Institute in Washington, DC.

In recognizing an individual manager, the award honors all OR managers for their important roles. It is a way of celebrating nursing management in surgical services.

Readers of OR Manager are invited to nominate a manager for the award. Simply write a letter of about 300 words describing what makes the manager deserving of the award. Supporting letters may also be sent.

Send the entry to OR Manager, Inc, OR Manager of the Year Award, PO Box 5303, Santa Fe, NM 87502-5303. The deadline for entries is July 1. Nominations are judged by the OR Manager advisory board.

A conference brochure is in this issue. The brochure and registration information are also at www.ormanager.com.

Bill would allow Medicare to pay for more ASC surgery

A new bill introduced in the US Congress would allow Medicare to pay ambulatory surgery centers (ASCs) for all surgical services except those requiring an overnight stay or other specific exceptions.

The bill also says ASCs would basically be paid 75% of the hospital outpatient fee schedule amount starting in 2008, more than what the government has proposed for its new ASC payment system.

HR 1823, introduced March 29, generally says ASCs could be paid by Medicare for any surgery except that identified by the Secretary of Health and Human Services as having a specific risk when performed in an ASC or where an overnight stay is required. The bill is patterned after a recommendation by the Medicare Payment Advisory Commission.

Sponsors are Kendrick Meek (D-Fla) and Wally Herger (R-Calif).

The ASC community applauded the bill. FASA President Kathy Bryant said, “Eighty percent of all surgeries in America today are outpatient, and 1 out of every 5 of these is performed in an ASC.

“This legislation will go a long way toward ensuring that Medicare beneficiaries have the same access to ASC services others in the community have had for many years.”

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Outpatient thyroid surgery safe

Thyroid surgery, traditionally an inpatient procedure, can be done safely in an outpatient setting and is less expensive, a new study reports.

Overall, 91 patients had thyroid surgery over 11 months. Of the 52 who had their surgery on an outpatient basis, 2 had complications compared with 1 inpatient. The cost of the outpatient surgery averaged $7,814, while the inpatient stay averaged $10,288. The authors stressed the need for proper patient selection when thyroid surgery is performed on an outpatient basis.


CMS unveils strict new transplant rules

Strict new rules issued in March by the Centers for Medicare and Medicaid Services require transplant programs to:

• perform an average of 10 transplants a year
• maintain organ and patient survival rates that match national rates
• tell potential recipients how many of their transplant patients survive at least a year and if this meets Medicare standards
• if served by a single surgeon, notify patients that the surgeon might not be available at the time an organ becomes available and whether provisions have been made to find a substitute surgeon
• alert Medicare immediately if they aren’t able to meet any of these standards.

The rules are in response to an investigation that found 1 in 5 transplant centers failed to meet minimum Medicare standards, the Los Angeles Times reports. The rules, which will take effect June 28, could force dozens of programs to give up federal funding or have it pulled, according to the Times, which conducted the investigation last June.

Programs will have 6 months to seek approval, and once approved, will be reviewed every 3 years.


AHRMM, university to develop supply chain benchmarking

The Association for Healthcare Resource and Materials Management is partnering with Arizona State University to set up an online supply benchmarking and performance improvement tool for the health care supply chain patterned after tools used in other industries.

The project is entering its first phase, which will involve developing target metrics for health care. The second phase will include developing data capture and an online benchmarking tool. The third phase will collect initial data and validate the model. In the fourth phase, full-scale data collection will begin.


Study looks at specimen-labeling errors

Communication errors are a major factor in sentinel events in surgery, and one type of communication error is mislabeled specimens. In a 6-month study of 21,351 surgical specimens, researchers from Johns Hopkins found 91 labeling errors, for an annual rate of 182 errors. The 5 most common types of errors were:

• specimen not labeled (18)
• empty specimen container (18)
• incorrect laterality (16)
• incorrect tissue site (14)
• incorrect patient (11).

Breast procedures were the most common type to have an error. Nearly 60% of errors were associated with a biopsy procedure.


Block team does not help turnover time for ortho cases

Adding a regional block team did not reduce anesthesia-controlled times and turnover times in an orthopedic OR suite with long turnover times—even though surgeons thought it did, finds a study from Brigham & Women’s Hospital and Harvard Medical School, Boston.

In a 3-month study, the researchers randomized the block teams for 927 orthopedic cases. They found no difference between the study group and control group in on-time first-case starts, induction time, emergence time, turnover time, or OR end time. But when surveyed, most of the surgeons thought the block team reduced turnover time significantly, according to the report in the March Journal of Clinical Anesthesia.


At a Glance

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