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IN THIS ISSUE

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More overweight/obese children having outpatient surgery — Are you prepared?

Outpatient surgery providers are seeing increasing numbers of children who are overweight and obese, and these children have a greater likelihood of experiencing problems associated with surgery, according to a recent study conducted by the University of Michigan Health System.[1]

The percentages of children who are overweight has almost doubled in the last 25 years, and the percentage of overweight adolescents has tripled.[2] About 18% of school children in the United States are considered overweight.[2]

"These patients pose a risk to an outpatient center due to the increased frequency of complications and need for prolonged monitoring," says **Ann K. White**, MD, FACS, FAAP, pediatric otolaryngologist at Atlanta Children's ENT in Alpharetta, GA.

As outpatient surgery providers see more overweight/obese children and adolescents, they also have seen increased rates of diseases that often accompany higher body weights, such as Type II diabetes, hypertension, asthma, and other breathing problems. The increased prevalence of these diseases has boosted the need for vigilance in the outpatient setting to

EXECUTIVE SUMMARY

The percentage of pediatric patients who are overweight or obese is increasing, along with the prevalence of conditions such as diabetes, hypertension, and sleep apnea.

- Perform the preoperative screening for these patients several days before surgery so the most appropriate surgical setting can be identified.
- Hypertension and diabetes must be controlled beforehand. Know that sleep apnea may be undiagnosed and may cause difficulty with preoperative sedation.
- Appropriate drug dosing is difficult.
- Initially after surgery, the biggest challenge is making sure the patient is breathing adequately after extubation.

properly manage the diseases during surgery and avoid discharge delays.

Paul Samuels, MD, associate professor of anesthesiology and pediatrics at Cincinnati Children's Hospital, says that all children with underlying problems are at higher risk for requiring overnight hospitalization "if their diseases are not adequately controlled prior to discharge."

A preoperative screening for appropriate facility placement is absolutely imperative to the health of the child and success of the surgical procedure, White says. Often the procedure may go well, but the postoperative course is complicated by the child's underlying health conditions, she says. "These risks ***must*** be assessed and problems anticipated," White says. "In our litigious society, those at increased risk must be cared for in appropriate facilities to ensure a healthy outcome for all involved in the care of the patient."

Screening should included, at a minimum, a through history that covers snoring, difficulty breathing, exercise tolerance, frequency of respiratory illnesses or symptoms, sleep-related problems, past anesthetic difficulties, and reflux, White says. If the patient has a history of exercise intolerance, shortness of breath, or chest pain on exertion, an electrocardiogram and possibly an echocardiogram should be obtained, White says. Those with severe OSA probably ought to have some cardiac evaluation, says **Olubukola O. Nafiu**, MD, FRCA, a resident in the Department of Anesthesiology at the University of Michigan in Ann Arbor.

Additionally, White says, "If there has been a history consistent with metabolic difficulties, then fasting blood chemistry and possibly thyroid function tests may be useful. Also, a sleep study is not always indicated, but a good sleep history is essential, she says.

However, if the patient has symptoms highly suggestive of sleep apnea, then the "gold standard" is a sleep study, says **Richard A. Beers**, MD, professor of anesthesiology at State University of New York (SUNY) Upstate Medical University in Syracuse.

Areas to consider for inpatient vs. outpatient

The surgeon should take an extensive history, then decide on appropriate screening tests, White advises. The patient should be evaluated at least seven days before the date of surgery by the anesthesia clinic, she says. "This time frame allows for additional tests to be completed before scheduled surgery date, if needed," White says. "Pending this risk determination, the child may or may not be a candidate for an outpatient facility," she says.

In Beers' opinion, the anesthesia history and physical examination should include the child's obstructive sleep apnea symptoms, signs, and physical characteristics, as well as the patient's overall exercise tolerance and any history suggestive of diabetes mellitus.

Another consideration is the type of surgery. "Airway surgery or surgery on a body cavity would be much more likely to require admission than peripheral surgery on an extremity or

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superficial structure such as the skin or superficial lymph node," Beers says.

It is imperative that obese children be prescreened prior to having surgery and anesthesia on an ambulatory basis, especially if the procedure is taking place in a freestanding center not physically connected to an overnight facility, Beers says. "If there is any doubt about whether or not the patient has a history or physical findings consistent with obstructive sleep apnea, then the patient should have arrangements made for admission to a monitored setting post-anesthesia."

At this point, there isn't enough published data to categorically say that obese children should be excluded from outpatient surgery, Nafiu says. However, "clinical experience and adult derived data would suggest that children with extremely high body mass indices [BMI], for example BMI greater than 35 at any age, deserve further screening and should probably not be scheduled for outpatient surgery, or at the very least, plans should be made for postoperative admission should this be necessary," Nafiu says. No morbidly obese child should every have surgery at a freestanding center, White contends.

For other obese children, there is no one test that will clearly distinguish who needs postoperative observation in a hospital, Beers says. However, examine these patients for a significant history of obstructive sleep apnea (OSA), Nafiu says. "OSA, which has a strong correlation with obesity even in children, will make me worry about day surgery in an obese child," he says.

Be prepared for these complications

In addition to the published study mentioned above, the University of Michigan in Ann Arbor also has studied complications of obese children following surgery, says Nafiu, who also is the lead author of the Michigan study.[3] "We did find that obese children are more likely to have difficult mask ventilation, laryngoscopy, and are more likely to stay longer in the post-anesthesia care unit," Nafiu says.

Outpatient surgery providers need to be prepared for these specific potential problems:

• **Preoperative problems.**

Preoperative problems include the management of known comorbidities, or the identification of unknown ones, says Samuels. "For instance, the patient may come into the hospital without their obstructive sleep apnea formally diagnosed," he says.

Overweight and obese children may have difficulty with preoperative sedation due to a history of sleep apnea, and the sedation may precipitate obstructive apnea, Beers says.

Expect to see an increasing number of children with hypertension and diabetes, say sources interviewed by *Same-Day Surgery*. "Hypertension, if present, must be controlled prior to surgery, as does their blood sugar [need to be controlled]," White says. "Diabetic patients have to be scheduled first in the morning, or blood sugars can rise significantly."

• **Perioperative problems.**

Positioning of an obese patient for a surgical procedure is "always difficult" due to the presence of a short, fat neck and limited neck mobility, White says.

During surgery, appropriate drug dosing is a challenge, sources say. There is little pharmacologic information on how to appropriately dose anesthesia drugs in this patient population, Samuels says. "This could result in either over- or underdosing of drugs, resulting in oversedation, breakthrough pain, or an increased risk of infection," he says.

Airway management is another challenge, sources say. Patients may have decreased oxygen reserve, so it's important to preoxygenate as best as possible, Beers says.

Visualization of the larynx for intubation is often difficult because children have high anteriorly positioned larynges normally, White says.

Airway devices such as a nasopharyngeal airway can be helpful for airway problems, Beers says, as well as postoperative admission or observation for several hours.

Another issue: Opening and closing of the wound takes longer with overweight/obese children due to the thicker fat layers, White says.

• **Postoperative problems.**

Initially after surgery, the biggest challenge is making sure the patient is breathing adequately after extubation, White says. "Due to a heavier chest wall, the patient must exert more effort to breathe," she says. Atelectasis can be a problem leading to poor oxygenation and the need for supplemental oxygen, White says. "One must monitor for post-obstructive pulmonary edema after [tonsillectomy and adenoidectomy]," she says. "If there is a history of sleep apnea, these patients are at risk for apneic periods and desaturations."

Airway obstruction in the postoperative period can be dangerous, Samuels warns. "Some patients will also require postoperative respiratory management, such as the use of CPAP [continuous positive airway pressure] to keep their airway

unobstructed," he says. "Appropriately monitoring these patients in the postoperative period is very important."

After surgery, overweight/obese children face more likelihood of hospital admission for monitoring of oxygenation and ventilation, as well as bleeding, Beers says.

Also following surgery, preoperative comorbidities still have to be managed, Samuels warns. "In addition, the use of pain medication can complicate some of these diseases," he says.

Overweight/obese children often require more drugs to treat post-op nausea and vomiting, Nafiu says. Samuels adds, "Once again, the appropriate dosing of pain medication can be problematic."

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Outpatient surgery at risk for drug errors

Report offers concrete steps you can take now

A recent report on medication errors by U.S. Pharmacopeia (USP) has pinpointed perioperative services as an editor highly at risk for medication errors when compared with the rest of the hospital, and outpatient surgery programs are particularly at risk, say sources interviewed by *Same-Day Surgery.*

The report looked at more than 11,000 medication errors in the perioperative setting and found that 5% of the errors resulted in harm, including four deaths. This percentage of harm is more than three times higher than the percentage of harm among all medication error records.

"This is a very fragmented system, with multiple handoffs among team members, which reduces effective communication and results in lots of places where the safety net is breached," says **Diane Cousins**, RPh, vice president of USP's Healthcare Quality Information Department and one of the authors of the report. USP released the report in partnership with the Association of periOperative Registered Nurses (AORN), the American Society of Perianesthesia Nurses (ASPAN), and the Uniformed Services University of the Health Sciences (USUHS).

EXECUTIVE SUMMARY

The pace and multiple handoffs in the perioperative setting lead those patients to have more than three times the risk of harm from medication errors than any other area of the hospital. Outpatient surgery is particularly at risk, experts say.

- Ensure that medications, especially antimicrobial agents, are administered at the correct time.
- Have dedicated pharmacy staff who participate in medication reconciliation and help standardize/limit the products routinely available.
- Fill out checklists completely before a patient leaves the area.
- Be careful of calculations, especially with pediatric and geriatric patients, and particularly with controlled substances.
- Have one form that compiles allergy information, herbal use, and supplement use.

No one person is tracking the patient through the entire perioperative process, Cousins points out. Every time the patient goes to a new area, such as the preoperative holding area or the OR, there is an entirely new care team. "That type of care tends to have its own issues related to communication and safety net," Cousins says.

The outpatient surgery environment in particular is very fast-paced, says **Sharon Giarrizzo-Wilson**, RN, MS, CNOR, perioperative nursing specialist in AORN's Center for Nursing Practice. The pace and the noise levels can lead to problems, Giarrizzo-Wilson says. "You've got multiple people communicating very important information," she says. "It's very easy to get distracted."

Giarrizzo-Wilson and others at AORN suggest that nurses also use a verbal active exchange of information regarding medication orders. "If the surgeon orders something, there should be a verbal read back of the order that was written," she says. "The scrub technician or the RN should be validating the medication prior to dispensing it onto the sterile field."

To avoid medication errors, develop strategies to ensure that medications, especially antimicrobial agents, are administered at the correct time. Another proactive step is to expand the pharmacy department's role in perioperative care by

having dedicated staff who participate in the medication use process, including reconciling medications and standardizing (or limiting) the products routinely available. Other recommendations from USP for the perioperative area include:

• Developing checklists that are accurately completed prior to patients leaving the area in order to minimize the loss of information through hand-offs.

A lot of institutions have these checklists, says **Rodney Hicks**, PhD, ARNP, manager of patient safety research and practice at USP and primary author of report. "It's a question of them being filled out," Hicks says. Often, a blank form accompanies the patient into surgery, he says.

• Devising strategies around medications that have a high risk for harm (such as midazolam or other controlled substances) by understanding the causes of these errors.

It's critical to have strategies that prevent errors from miscalculations, especially with pediatric patients, the authors say.

Cousins says, "Children are at particular risk for harm in the four areas related to surgery: [outpatient surgery, preoperative holding area, operating room, and the postanesthesia care unit]." The USP offers strategies for reducing errors in each of those areas.

The report identified pediatric patients, as well as geriatric patients, at being at higher risk of errors. While children comprised 2.6% of the sample, the percent of harm in this population was 12.6%, which is higher than expected, Hicks says. The perioperative area experiencing the highest rates of harm to pediatrics was the postanesthesia care unit (20.3%).

The greater harm in the pediatric and geriatric populations raises particular concerns for ambulatory surgery centers (ASCs), Giarrizzo-Wilson says. "ASCs do quite a bit of cataract surgery," she points out. "They also get a lot of children for routine procedures, such as tonsils and other ENT cases."

If staff members are administering medications to pediatric or elderly patients, and there will be titration of the medication or a particular concentration that needs to be reconstituted, staff should be especially careful of the calculation, Giarrizzo-Wilson warns.

• Implementing strategies that adequately identify and communicate allergy information and other clinical information to all members of the perioperative team.

Consider having one comprehensive chart that lists allergies, medications, and the patient's weight, Hicks advises.

The Surgery Center at Adena Health Pavilion in Chillicothe, OH, uses a preadmission form that focuses on allergies, medications, systems review, and activity tolerance in order to verify and/or assign an ASA classification, says **Michael Burnett**, RN, MSA, BSN, clinical manager. "This serves as a form of medication reconciliation because each nurse that cares for the patient during the continuum is required to sign the form," Burnett says. "This form serves as one of the tools used during patient hand-offs."

Many ambulatory surgery patients use herbals and supplements, Giarrizzo-Wilson says. "In the ASC environment, you see patients for a much shorter period of time," she points out. "There needs to be consistency and understanding of potential interactions." **(See resources, below.)**

It all boils down to communication, Giarrizzo-Wilson says. "You need to know what's occurring in the patient's medical life prior to surgery and throughout the perioperative experience and then when the patient is charged home," she says. "Otherwise, you can miss potential herbal supplements that can cause life-threatening situations in

RESOURCES

To access the report, go to www.usp.org. Under "What's New," click on "USP releases new MEDMARX data report."

The Association of periOperative Registered Nurses (AORN) has tools to assist with medication safety, including the following:

- AORN Position Statement: Pediatric Medication Safety. Web: www.aorn.org/about/positions/pdf/POS-Pediatric%20Medication%20Safety.pdf.
- **AORN Guidance Statement: Safe Medication Practices in Perioperative Practice Settings Across the Life Span.** Web: www.aorn.org/about/positions/pdf/Safemeds-2006.pdf.
- **AORN Safe Medication Practices Tool Kit.** Web: www.aorn.org/toolkit/safemed/ataglance.asp.

The Institute for Safe Medication Practices and the U.S. Food and Drug Administration have a free **error-prone abbreviations toolkit** that includes an error-prone abbreviations list, a brochure for use in staff education, a print public service ad, a slide show and video that can be used in presentations on the topic. To access a copy of the toolkit, go to www.ismp.org/tools/abbreviations.

the periop period."**(For more on medication errors, see these stories in the *SDS Accreditation Update* supplement: "Alert addresses medication errors," April 2006, p. 2, and "JCAHO tips to avoid medication errors," April 2006, p. 4.)** ■

Fatal flaws and how to solve them

HR, revenue problems top list of reasons for failure

(Editor's note: This is the first of a two-part article that looks at key reasons for failure in outpatient surgery programs. This month, we look at human resource issues, and next month we'll evaluate key revenue areas that must be addressed to help a struggling program.)

Physician recruitment, cost containment, staffing, and managed care contracting are all key parts of any outpatient surgery manager's job, but if your program is struggling, how do you decide which area is most important?

"There is a lot of information on how to reduce costs and how to recruit new physicians, but in reality, these are not the areas that have the biggest impact on a surgery program that is not doing well," says **Thomas Mallon**, chief executive officer of Regent Surgery Health, a Westchester, IL-based developer and manager of ambulatory surgery programs. There are two human resource-related areas and two revenue-related areas that, if addressed by surgery program managers, will resolve 80% of their problems, he suggests.

• Hire the right administrator.

Too many times, a surgery center administrator will come from the office of one of the physicians involved in the surgery center, says Mallon. While this person may have the business skills necessary for running a surgery center, the previous association with one surgeon often leads to accusations of preferential treatment for the surgeon, he says. "It is best to hire a neutral person, someone with no ties to any of the physicians involved in the surgery center," he says.

There are many traits that the "right" administrator should possess, says Mallon. "Find someone who is energetic, creative, organized, and persistent," he suggests. "If you hire the administrator from within the existing staff, make sure the person is well respected," he says.

Excellent conflict resolution and people skills are essential for a good administrator, Mallon says. The administrator must be able to communicate well with physicians, staff members, managed care companies, and patients, so he or she must be able to relate to a wide range of people, he adds. "Although the ideal background for a surgery program administrator is a mix of clinical and management skills, it is more important to hire for attitude then teach the person the skills needed," says Mallon. It is much easier to teach people how to handle a budget or plan a new service than it is to teach them to relate to people, he explains.

• Take steps to avoid low staff morale.

One of the key roles of an outpatient surgery program administrator is to make sure that employees' morale stays high, points out Mallon. If the right administrator is in place, it becomes easier to establish a good working environment that promotes high morale, he adds.

Low staff morale is a major problem for struggling surgery programs, admits Mallon. Poor morale can result in the loss of patients, physicians, and staff, he says. Each of these losses only increases the financial troubles a surgery program may experience, he adds.

If you are having difficulty within your program and you are making a number of changes to address problems, maintaining good staff morale is critical, says **Denise Cheek**, RN, administrator of Calumet Surgery Center in Munster, IN. Calumet underwent several changes, including a change in administrators, and staff morale was high on the list of priorities throughout all the changes, says Cheek. "I was promoted from within the staff, so I knew everyone and I understood how the anxiety created by change was affecting everyone," she explains. "The most important thing I did was to hold meetings with the staff if I heard about rumors that were spreading or if I heard that one or more people were upset about something specific." By sitting down with the staff and directly addressing rumors or answering questions, Cheek was able to reduce anxiety and squash rumors before they got out of control, she adds.

Because there was a change in administrators, other staff members feared for their jobs, so one of the first steps in the change was to bring the staff's pay scale up to the standard pay scale in the area, points out Cheek. "This was good for our morale because it reassured everyone that their job was important to the success of the center and that we did not plan to cut positions," she says. "Luckily, we had no turnover during our transition and it was a positive experience for everyone."

One of the reasons Cheek was able to keep staff members focused on the positive aspects of their transition was her focus on "we," she says. "It was important to look at all of our changes as important to the whole facility and important to each member of the team," she explains.

Teamwork is essential in an outpatient surgery setting, admits Mallon. For this reason, make sure you hire staff members who like teamwork and don't focus on narrowly defined job responsibilities, he says. "Surgery center staffs are usually small, so it's important that everyone respect and like each other," he adds. "Luckily, outpatient surgery programs are desirable workplaces, so there is a good pool of clinically qualified people from which to choose." ■

Multimedia informed consent helps with peds

Informed consent can be a challenge with any patient, but it is particularly difficult with pediatric cases. One option is a multimedia presentation that can help get the necessary information across to the patient and family members in a more engaging way than the standard discussion.

Nemours, a health care system based in Jacksonville, FL, developed the program through a collaborative agreement with Emmi Solutions, a multimedia communications company based in Chicago.

The EmmiKids program uses animated web-based, interactive modules to facilitate parental informed consent for pediatric surgical, as well as medical, procedures. The pediatric system is the latest version of the Emmi program already used for adult patients. Module topics include general anesthesia, tonsillectomy and adenoidectomy, bilateral myringotomy, interventional cardiac catheterizations, inguinal hernia repair, repair of undescended testicles, hypospadias repair, and upper endoscopy. The system costs $360 per bed per year.

At A.I. duPont Hospital for Children in Wilmington, DE, the EmmiKids program is being used for bilateral myringotomy tubes and tonsillectomy surgery. Within the next several months, they will use EmmiKids for selected procedures in general surgery and urology. Anesthesia modules also have been developed.

When a case is scheduled, a surgery scheduler double checks that the EmmiKids program has been discussed by asking the patient, says **Barbara Price**, administrative coordinator in the Department of Surgery. "If the physicians have not broached the

EXECUTIVE SUMMARY

A new web-based informed consent system can help ensure the parents of pediatric patients receive all necessary information. The system is based on a similar one used for adult patients.

- The system is intended to supplement a one-on-one conversation, not replace it.
- Users can go back and review information as needed.
- Managers could see a benefit from less litigation tied to informed consent claims.

Here is how Emmikids works

Emmikids, a web-based, animated process developed by Nemours health care system based in Jacksonville, FL, provides informed consent to parents and guardians before they sign a consent document.

Content for a pre-procedure education module is presented through Flash-based animation with narration and includes the definition and description of the procedure, indications, benefits and risks, alternatives, and post-care. The Internet-based system allows parents/guardians to view the presentation at a time most convenient for them. The viewer has control of the pace and can pause or sign off and return later. During the presentation, parents can return to prior segments or skip previously viewed portions. Viewers can ask questions via e-mails to their physician or printouts to review later. Parents without Internet access can view the presentation as they complete the necessary pre-procedure visit on-site.

The average module takes approximately 20 minutes to review. School-aged children with a parent/guardian can view most of the content, but parents are advised to view some material on their own, such as that pertaining to the risk of death. Documentation of completion of the entire module along with the times and dates the module was visited is documented and stored for future use. Brief questions at the conclusion solicit feedback regarding parent satisfaction with the process and content. The system is available from Emmi Solutions in Chicago. ■

SOURCE

For more information on EmmiKids, contact:
- **Barbara Price**, Administrative Coordinator, Department of Surgery, A.I. duPont Hospital for Children 1600 Rockland Road, Wilmington, DE 19803. Phone: (302) 651-5981. E-mail: bprice @nemours.org.

subject of EMMI, the surgical schedulers will then explain the program and subsequently enroll them," Price says.

The traditional informed consent process is highly variable and dependent on individual practitioner preferences regarding timing, content, process, and the clinician obtaining the consent, says **Linda Pilla**, JD, MBA, chief risk officer for Nemours.

The doctor has to go over this information 35 times a day and is under stress, Clark says. "He's not likely to do it the same way each time, so the EmmiKids helps ensure that the right information is always provided," he says.

The need for a uniformly high-quality preprocedure education is clear. The perception of incomplete or improper informed consent is an element in up to 35% of medical malpractice actions, Pilla says. "Our goal was to find a way to provide a better and more consistent informed consent process, which we hoped would lower our risk overall while improving patient satisfaction," she says.

The web-based consent process is a more consistent way of providing the necessary information about a procedure and acts as a sort of backstop for the physicians, says **B.J. Clark**, MD, vice president of physician practices for Nemours Delaware. It is not a substitute for a good face-to-face informed consent conversation, he says, but rather a supplement to make sure all important points are understood. "One of the driving principles of this effort was to provide a complete and uniform body of information for a family of a child undergoing a procedure," Clark says. "The family can review the program at their own pace, as many times as they wish, and with as many family members as they wish."

The EmmiKids system allows the family to review important information about an upcoming procedure between the time they're informed that the child needs treatment and the time of the procedure. That timing can help overcome the parents' sense of being overwhelmed with information when first told of the treatment plan, Clark says. "There is a real question about how much information gets through to parents when they are still shocked and scared by what you've just told them. With this, they can take the time to adjust and then go online and review the information when they're more in control," he says.

Parents can go back and review information to make sure they fully understand what they discussed with the doctor, says **Neil Izenberg**, MD, founder and chief executive of The Nemours Center for Children's Health Media, in Wilmington, DE. The Nemours Center creates online, print, and video information to educate families about children's health issues.

"It really comes down to the ethical responsibility of the organization to make sure the families really understand what is going on," he says. "It's just not enough to say the information and write down that you said it, so then you can say you've done your duty. The real goal is to make

Parents give thumbs up to informed consent system

At A.I. duPont Hospital for Children in Wilmington, DE, parents and guardians have had a positive response to EmmiKids, says **Barbara Price**, administrative coordinator in the Department of Surgery.

"Although we do not have any quantitative data, parents indicate that watching Emmi saved them from making a phone call to the office," she says.

EMMI Solutions in Chicago, which developed the system with Nemours, a health system based in Jacksonville, FL, recently surveyed 35,600 patients and parents about their experience with the multimedia informed consent systems for adults and children. The results were overwhelmingly positive:
- 96% said Emmi improved their understanding of what to expect.
- 90% of patients said Emmi gave them a better understanding of how to take care of themselves before and after their procedure.
- 84% said Emmi covered risks that they didn't know about previously.
- 80% said Emmi answered questions they had planned to call their doctor to discuss.
- 92% received new information about their procedure through Emmi.
- 89% were more comfortable about their upcoming procedure after viewing Emmi.
- 87% of patients experienced increased confidence in their doctor due to Emmi. ■

sure the parents understand fully, and that's where this system helps." ***(See details of EmmiKids system, p. 59. See information about parent satisfaction with the product, p. 60.*** *More information about pricing and other specifics of the system is available at www.emmi solutions.com.)* ■

Same-Day Surgery Manager

Answers on cross-training, $250,000 request from doc

By **Stephen W. Earnhart**, MS
CEO
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Austin, TX

Question: Is cross-training of staff really that cost-effective? I have several of my staff threaten to quit if I force them to work in PACU. I am forcing the cross-training based upon an article you wrote in *Same-Day-Surgery* some time ago.

Answer: Cross-training of staff can be accomplished in three ways:

- voluntarily, meaning the staff is eager to learn and willing to learn;
- forcibly, your situation, which will probably not work with these particular staff members;
- reality-based, whereas the staff themselves see it as job security, a resume builder, and an opportunity for self-satisfaction to be asked to be trained.

I would not hold out much confidence that you are going to accomplish your goal as long as your staff dictates policy. You might want to have them speak to other cross-trained staff at other facilities to get the nurses' reactions after they have been cross-trained. Or, my preference in this case, start interviewing.

Question: We are starting a new surgery center and are considering doing urology cases there. However, the urologists tell us that they need a dedicated "wet room" with a split leg, fixed overhead imaging unit in order to do their 75 cases per year. I about died when I found out the table they wanted cost about $250,000. I want to please them and would like their business, but, really!

Answer: You need to be realistic about what you can and cannot offer in a surgery center.

Follow-up note: After talking to this reader on the phone, we both found out that the group had the local hospital purchase the same table for them. The urology group wanted to duplicate the equipment and have ability to go between the hospital and the ASC to perform these cases. As you can guess, the center declined.

Question: Why does the medical director need to be a member of anesthesia? We have constant bickering and squabbling from the anesthesia department wanting to get out of call in order to cover our department exclusively.

Answer: Your medical director absolutely does not have to be a member of an anesthesia group. It can be any physician that is willing to serve. Our own experience has the medical director coming from anesthesia about 70% of the time and the rest from other members of the surgical staff.

Question: One of our surgeons insists on bringing his dog to the surgical department. The dog is downright ugly, with the mange and missing teeth and all, and has no bladder or bowel control whatsoever. If it were cute or cuddly, it might be different, but this animal is a throwback to an earlier era. We have nothing in our bylaws that can handle this situation, and the surgeon does about 150 knees per year, so we hate to go postal on him. We have sat down and explained our position with him, asked the chief of staff to talk to him ("not my problem"), and can do nothing to make him stop. Ideas?

Answer: See if you can make arrangements with a local pet grooming business. In exchange for allowing the business to put a poster in the staff break room about their pet services, their employees might be willing to groom the dog on one of the surgeon's block days and put the animal in their dog school during the surgeon's other block time, free of charge. *Follow-up note: The reader followed this advice. Whatever operating room started late those days, a chosen staff member of the tardy room would have to drive the dog back and forth to the groomer on those days. The surgeon was happy, the pet grooming shop increased business, and the dog did not smell — as much. And operating room start times improved dramatically!*

(Earnhart & Associates is an ambulatory surgery consulting firm specializing in all aspects of surgery center development and management. Contact Earnhart at 1000 Westbank Drive, Suite 5B, Austin, TX 78746. E-mail: searnhart@earnhart.com. Web: www.earnhart.com.) ■

Thyroidectomy safe for outpatient setting

Reduced bleeding, prophylactic meds bring patients

Although thyroidectomies now are performed using minimally invasive techniques, surgeons have been reluctant to move the procedure to an outpatient setting for a variety of reasons including risk of bleeding and the threat of low blood calcium levels. These risks can be minimized, which makes thyroidectomy an appropriate procedure for outpatient, according to a study conducted at the Medical College of Georgia in Augusta.

In a study of 91 patients undergoing thyroidectomies, 52 underwent the procedure on an outpatient basis, 26 were observed in a 23-hour stay unit, and 13 were admitted for a hospital stay that averaged about three days.[1] A total of two complications occurred in the group managed as outpatients, and one complication occurred in the groups that were observed for 23 hours or admitted as inpatients, according to **David J. Terris**, MD, lead author of the study and chairman of the Otolaryngology Department at the Medical College of Georgia.

Reducing the risk

Surgeons have been hesitant to perform thyroidectomies as outpatient procedures mainly because of the risk of bleeding or fluid buildup near the incision that can cause pressure on the trachea and restrict the patient's airway, explains Terris. "We found that there are a number of steps that can be taken to reduce this risk and make the procedure safer for outpatient settings," he says.

Minimally invasive dissection is preferred to the traditional approach of raising flaps of skin and muscle to expose the thyroid, says Terris. "I also use a harmonic scalpel that reduces the loss of blood during the procedure from 150 to 300 cc of blood for the traditional method to 2 or 3 cc of blood with the harmonic scalpel," he says. "The less bloody the procedure is during surgery, the less chance of blood seepage following surgery."

Because his minimally invasive approach and the use of the harmonic scalpel reduce the amount of blood during the thyroidectomy, Terris does not insert drains in the incision. "When I routinely used drains, I had to admit the patient overnight because I don't like sending a patient home with drains," he explains. Even though many surgeons now use a minimally invasive approach to thyroidectomies, they still use drains, Terris says. "I learned that drains don't make a difference in outcomes, but we are creatures of habit, so it does take time to change a surgeon's behavior," he adds.

In addition to bleeding, hypocalcemia is a risk that prevents surgeons from recommending thyroidectomy as an outpatient procedure, points out Terris. To address this risk, Terris places his patients on a prophylactic calcium supplementation regimen that tapers off over a three-week period. "The medications are not dangerous, so there is no risk for patients who do not develop hypocalcemia to take the additional supplement," he says.

23-hour stay an option

Most of the thyroidectomy patients at the Thyroid Surgery Center of Texas are discharged less than 18 hours after the procedure, says R. **Anders Rosendahl**, MD, FACS, in Austin, TX. Because he doesn't use a prophylactic calcium supplementation regimen, he prefers to keep patients on a 23-hour stay basis to monitor their calcium levels and to check for bleeding, he says.

Whether you choose to use a 23-hour stay unit or discharge directly from the outpatient surgery center, select patients carefully, says Rosendahl. Younger patients have fewer comorbidities, and women usually suffer fewer side effects than men in his experience, he says.

There was no difference in outcomes based on gender or age in the Medical College of Georgia study,[1] says Terris. "I do choose patients carefully to be sure that no other medical conditions are exacerbated by the surgery or the anesthesia."

EXECUTIVE SUMMARY

The latest procedure to move into the outpatient surgery arena is the thyroidectomy. Although the procedure is relatively simple, the risks of bleeding and hypocalcemia have prevented many surgeons from considering it an outpatient procedure. A study conducted at the Medical College of Georgia demonstrates the safety of the procedure and offers suggestions on how to minimize the risks.

- Administer prophylactic calcium supplementation.
- Use minimally invasive techniques.
- Harmonic scalpels reduce bleeding during and after the procedure.

There is a learning curve for this procedure, Rosendahl says. Surgery program managers should check training and experience carefully before allowing surgeons to perform the procedure on an outpatient basis, he says.

Typically, the best surgeon will be a high-volume thyroid surgeon who does not use drains, says Terris. "There's no way to identify a specific number of cases the surgeon should have performed, but he or she must use minimally invasive techniques and avoid drains in order to even consider performing this procedure on an outpatient basis," he says.

Costs are much lower

Costs for outpatient thyroidectomy are lower than for inpatient thyroidectomy with the average outpatient procedure in Terris' study costing $7,814 compared to $10,288 for inpatients. A handpiece suitable for thyroidectomy and a harmonic scalpel are necessary, but most surgery programs have these available, Terris points out.

When the Surgery Center of Aiken [SC] accepted Terris' first outpatient thyroidectomy patients, the equipment already was in place, says **Todd Fields**, business manager of the center. "Reimbursement for this procedure is good and more than covers our costs," he says.

Although costs for the procedure are lower and more attractive to payers, the real reason to consider outpatient thyroidectomies is the patient's preference, says Terris. "Pain medication, other than Tylenol, is rarely used and some patients are back at work the following day," he says. "Patients want to recover at home, and they want to return to their normal routine as quickly as possible."

Reference

1. Terris, DJ, Moister B, Seybt MW, et al. Outpatient thyroid surgery is safe and desirable. Presentation at the 110th Annual Meeting & OTO EXPO of the American Academy of Otolaryngology's Head and Neck Surgery Foundation, Toronto; Sept. 17-20, 2006. ■

FDA: Stop using Custom Ultrasonics washer

The Food and Drug Administration (FDA) recommends that facilities stop using Custom Ultrasonics endoscope washer/disinfectors if alternative automated endoscope reprocessors (AERs) are immediately available and it is feasible to make the switch. The affected products include the System 83 Plus Washer/Disinfector, the System 83 Plus MiniFlex Washer/Disinfector, and all accessories.

The company's deficiencies in failing to comply with FDA's Quality System (QS) regulation included failure to establish an adequate quality assurance program for manufacturing these devices, inadequate procedures to prevent and correct problems, inadequate design control, and inadequate procedures to process and analyze complaints. In addition, the company lacked adequate procedures to report problems with these devices and failed to report problems it knew about to the FDA.

Before making a switch, look at the labeling to ensure that the facility's endoscopes are compatible with the alternative AERs and be certain that staff members are trained in using the alternative device. If, after looking at the feasibility of switching to an

CE/CME instructions

Physicians and nurses participate in this CE/CME program by reading the issue, using the references for research, and studying the questions. Participants should select what they believe to be the correct answers, then refer to the answers listed in the answer key to test their knowledge. To clarify confusion on any questions answered incorrectly, consult the source material. After completing this semester's activity with the **June** issue, you must complete the evaluation form provided and return it in the reply envelope to receive a certificate of completion. When your evaluation is received, a certificate will be mailed to you. ■

COMING IN FUTURE MONTHS

- How one surgery program saved $100,000
- Forms capture all potential expenses before you buy equipment
- Pros and cons of induction rooms
- Checklist determines which patients are most likely to be admitted

CE/CME *questions*

- **Identify** clinical, managerial, regulatory, or social issues relating to ambulatory surgery care.
- **Describe** how current issues in ambulatory surgery affect clinical and management practices.
- **Incorporate** practical solutions to ambulatory surgery issues and concerns into daily practices.

17. An obese pediatric patient should be evaluated how long before the date of surgery by the anesthesia clinic, according to Ann K. White, MD, FACS, FAAP?
A. At least one day.
B. At least two days.
C. At least four days.
D. At least seven days.

18. Based on a recent report on medication errors from U.S. Pharmacopeia (USP), who are particularly at risk in the perioperative setting, according to Diane Cousins, RPh?
A. Pediatric patients
B. Geriatric patients
C. Obese patients
D. The first scheduled cases of the day

19. Why should an outpatient surgery program administrator not be affiliated with a specific physician practice, according to Thomas Mallon?
A. The person will demand too high a salary.
B. His or her background does not contain the experience needed.
C. The administrator can be accused of giving preferential treatment to the previous physician-employer.
D. The physician will not want the employee to leave his or her practice.

20. What does David J. Terris, MD, use for his thyroidectomies to reduce bleeding?
A. Local anesthesia
B. Minimally invasive approach
C. Harmonic scalpel
D. B and C

Answers: 17. D; 18. A; 19. C; 20. D.

alternative AER, a facility decides to continue using the Custom Ultrasonics washer/disinfectors, be sure that these devices have been adequately maintained and that the most current instructions are being followed. Any concerns or questions about how the device is functioning should be reported to Custom Ultrasonics immediately [Phone: (215) 364-1477.]

There have been no reports of patient infections attributed directly to these devices. However, infections may have occurred and been unreported, the agency says.

The FDA does not recommend manual reprocessing as an alternative to using functional AERs. FDA officials believe the risks inherent in manual reprocessing outweigh the benefits. **[Editor's note: For more information on the FDA action, go to www.fda. gov/cdrh/safety/022707-ultrasonics. html. If you have questions about this FDA Notification, contact the Office of Surveillance and Biometrics in Rockville, MD. Phone: (240) 276-3357. Fax: (240) 276-3356. E-mail: phann@cdrh.fda.gov.]** ■