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IN THIS ISSUE

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For MAC with colonoscopy, should payers dictate medical policy?

In April, Aetna will join several other payers, including WellPoint and Humana, that say it isn't medically necessary to have an anesthesia professional present for average-risk individuals undergoing standard upper or lower gastrointestinal (GI) endoscopic procedures.

Under Aetna's new policy, monitored anesthesia care (MAC) will be covered only under certain circumstances. **(See box, p. 27.)**

"There is no generally accepted evidence demonstrating that average-risk patients require MAC for routine GI endoscopy," according to Aetna.

Others, such as United Healthcare (UHC), say that "if the particular and unique patient circumstances call for MAC during colonoscopy, that MAC is covered by UHC, and the anesthesiologists providing the MAC are contracted with UHC." Medicare coverage varies by state according to its carriers and fiscal intermediaries, but coverage often is 100%, according to sources interviewed by *Same-Day Surgery.*

Association sources and others interviewed by *SDS* expressed concern that payers are dictating policy regarding anesthesia services for colonoscopy. **(For information on a 2004 joint statement from the associations' working group that some payers are using to justify their position on reimbursement, see story, p. 28.)**

EXECUTIVE SUMMARY

Aetna has joined several other payers who say it isn't medically necessary to have an anesthesia professional present for average-risk individuals undergoing routine upper and lower endoscopy.

- Aetna and many other carriers will cover monitored anesthesia care under certain conditions, such as younger and older patients.
- Critics say many patients prefer anesthesia and may avoid this important screening test without it. Critics also say payers should not dictate medical policy.

It's an issue of safety, some maintain. About 1% of all malpractice claims in the United States involve gastroenterology, and about 40% of these involve procedure-related mishaps.[1] Sedation-related complications probably account for 40%-50% of procedure-related serious adverse events.[2-3]

"Doesn't it make sense to have a second provider supplying that sedation?" says **Meena S. Desai**, MD, president and CEO of Nova Anesthesia Professionals in Villa Nova, PA.

Additionally, preliminary research indicates that when an anesthesiologist provides anesthesia during colonoscopy, there is improved colon polyp detection.[4]

When payers do reimburse MAC for colonoscopy, providers typically administer propofol. The American Gastroenterological Association (AGA) said in a recent statement, "We recognize that the use of propofol in endoscopy is a complex topic, from a medical and scientific standpoint," For example, the association noted that issues regarding medical necessity of MAC and reimbursement are "irreversibly intertwined." Evidence has not consistently demonstrated the advantages of propofol in average-risk patients having standard upper and lower endoscopy, the association said. "Ultimately, a qualified health care practitioner should be the decision maker regarding the use and administration of sedation agents in conjunction with the patient," it said. "If an individual provider lacks appropriate competency in the administration of sedation, then it should not pose a barrier to the patient receiving quality care in a safe environment, and practitioners should be able to employ and be reimbursed for the use of an anesthesia professional."

It isn't appropriate to restrict privileging, credentialing, or payment for sedation services when the physicians are trained to provide such service, but they think an anesthesia professional is medically necessary, the association said.

Patient satisfaction said higher with MAC

Critics of the payers' policy on no reimbursement say that providers achieve better results and have higher patient satisfaction when MAC is offered.

While colonoscopies can be performed with just sedation, most patients want to be asleep while having their colonoscopies, says **Beverly Philip**, MD, professor of anaesthesia at Harvard Medical School and medical director of the Day Surgery Unit at Brigham and Women's Hospital in Boston. "Patients are aware that anesthesia with propofol is pleasant and safe when given by anesthesia professionals," Philip says. "Relief of physical or emotional discomfort may be unnecessary to some insurance companies, but may be necessary in the eyes of patients."

Nova Anesthesia Professionals has started providing anesthesia services to a GI practice that previously was providing its own conscious sedation, Desai says. Patient surveys indicate that 100% of patients would have the procedure done

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again with an anesthesiologist, she says.

Hector Vila, MD, anesthesiologist at M. Lee Moffitt Cancer Center in Tampa, FL, agrees that many patients want to be unconscious. "That type of anesthesia is best delivered by an anesthesiologist or anesthesia professional, as it involves deep levels of anesthesia and loss of normal protective airway reflective reflexes," he says. When MAC is not reimbursed, conscious sedation typically is provided instead. "Patients say, 'If I have to be conscious, I'm not having the procedure,'" Vila says.

That statement leads to a second concern of critics: With no reimbursement for MAC, many patients will opt not to have the screening. "I have great concerns that it's going to become a barrier for those seeking this really important screening test," he says.

Conscious sedation, by definition, means you react appropriately to pain, Desai says. "If you said that to patient, who would come in for colonoscopy if you were going to react appropriate to pain?" she asks.

While 90% of patients may be happy with conscious sedation, that means 10% are unhappy and may forego the test without anesthesia, Vila points out. "If someone just wants to save money, it shouldn't prevent something that has high patient demand for such an important test," he says. Colorectal cancer is the third-leading cause of death by cancer in the United States, sources point out.

Limiting patient access?

Leaders of the associations also are concerned. "Given the current uptake of colorectal cancer screening, we are concerned about payer initiatives that may limit patient access to and acceptance of such services," the AGA said in its statement.

While few other options are available, one recent study looked at fospropofol disodium, the prodrug of propofol, which is being evaluated for sedation in colonoscopy.[5] The study concluded that a fospropofol disodium 6.5 mg/kg dosing regimen was safe and well tolerated. **Lawrence B. Cohen**, MD, associate clinical professor at The Mount Sinai School of Medicine in New York City, who gave the presentation, said, "As far as fospropofol is concerned, I believe that it will provide GI doctors with a sedation drug that offers many of the benefits of propofol — rapid onset, quick recovery, amnesia — but without the warning that the propofol label carries." Propofol currently carries a warning label limiting the use of propofol to clinicians trained in the administration of general anesthesia and not involved in the conduct of the surgical/diagnostic procedure.

Aetna lists conditions for monitored anesthesia care

Beginning April 1, Aetna will pay monitored anesthesia care (MAC) for individuals undergoing standard upper or lower endoscopic procedures only under certain circumstances, such as when patients are:

- pregnant;
- 18 years or younger;
- 65 years or older;
- at increased risk for complications due to their American Society of Anesthesiologists (ASA) classification;
- in danger of airway compromise, including those with oral, neck, or jaw abnormalities; sleep apena; or those who are morbidly obese;
- uncooperative or combative;
- dependent on opiates or sedatives;
- scheduled for certain complex or prolonged gastrointestinal (GI) endoscopic procedures;
- diagnosed with epilepsy;
- having a history of drug or alcohol abuse;
- having previous problems with sedation or with an endoscopic procedure. ■

What will payers do next?

Critics also raise concerns that Aetna and other payers are setting a precedent of dictating medical policy.

In a letter posted on the web by **Jeffrey L. Apfelbaum**, MD, president of the American Society of Anesthesiologists (ASA), to chief medical office at Aetna, he said, "The ASA has grave concerns about the interference with patient-physician and physician-physician relationships as well as the threat to patient safety resulting from this Aetna policy." *(Editor's note: To access a link to the letter and the Aetna policy, go to www.asahq.org/news/asanews011108.htm.)*

Aetna is imposing "a very simplistic view of the detailed judgments made by a physician caring for an endoscopy patient," said Apfelbaum, who says there are often subtle considerations. He also said the growing volume of anesthesia services for GI endoscopy is coming at the requests of

gastroenterologists and their patients. He raised concerns that Aetna's policy will lead to some providers providing "depths of sedation for which they are unqualified and thereby compromise the safety of patients undergoing endoscopy." Apfelbaum added that it is equally disturbing that Aetna's position puts anesthesiologists "in the position of second-guessing or disputing the medical judgment of gastroenterologists and even questioning requests from our physician colleagues for assistance in the care of patients who they believe would benefit from our presence." He pointed out that cardiologists and radiologists don't refuse to consult when requested. "Clearly, these strategies are not used, but the Guideline addressing anesthesia services for endoscopy takes precisely this approach by putting the payment for the anesthesia service in jeopardy when the request for this service is taken in good faith," Apfelbaum said.

It's a bad precedent, Desai says. "For colonoscopies, it's a step backward for colon cancer screening," she says.

Those types of payer guidelines take patient care decisions out of the hands of physicians, Desai says. If a poor patient outcome occurs due to a payer's policy, is the insurance company setting itself up to practice medicine, and if so, is it assuming liability, she asks.

Desai expresses concerns about where payers will go next in terms of dictating medical practice. "Insurers begin with insidious little insertions, and then progress to much larger things," she says. "Will they start denying breast biopsies? Why would we need them?" she says. "What about removal of skin lesions, or cataracts, or any other thing that can be done with sedation?"

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Payers point to 2004 joint statement

The three major gastroenterology associations released a statement in 2004 that said monitored anesthesia care (MAC) is not needed for routine colonoscopy procedures. In 2004, the working group from the American College of Gastroenterology (ACG), the American Gastroenterological Association (AGA), and the American Society for Gastrointestinal Endoscopy (ASGE) said, "The routine assistance of an anesthesiologist/anesthetist for average risk patients undergoing standard upper and lower endoscopic procedures is not warranted." *(Editor's note: To access the 2004 statement, go to www.gi.org/physicians/ nat affairs/trisociety.asp.)*

Some payers have misinterpreted the statement, says **Hector Vila**, MD, anesthesiologist at M. Lee Moffitt Cancer Center, Tampa, FL. Vila points to the use of the word "routine." "They don't say 100% of the time you don't need an anesthesiologists," he says. "They don't say it's unwanted and unneeded by patients."

When an anesthesiologist or anesthetist does provide monitored care during a colonoscopy, propofol typically is administered. In a statement recently shared with *Same-Day Surgery*, the AGA said, "To date, the evidence has not consistently demonstrated an advantage with the use of propofol in average-risk patients undergoing standard upper and lower endoscopy." The health care practitioner, with the patient, should decide about the use and administration of sedation agents, the AGA said. "If an individual provider lacks appropriate competency in the administration of sedation, then it should not pose a barrier to the patient receiving quality care in a safe environment, and practitioners should be able to employ and be reimbursed for the use of an anesthesia professional," the association said.

The ACG recently contacted *SDS* to clarify its position as follows: "The physician is in the best position to decide when and where particular procedures should be done and what sedation agents are appropriate in a particular case. We oppose efforts to substitute judgment by insurance carriers or others."

Insurance companies are jumping the gun, according to **Meena S. Desai**, MD, president and CEO of Nova Anesthesia Professionals, Villanova, PA. Desai points out that in the 2004 joint statement, the groups stated further randomized clinical trials

are needed in this setting. Additionally, the participants in the 2004 working group were not from geographic areas where propofol was commonly used at that time, she says. ■

More hospitals pledge no charges for adverse events

The Massachusetts Hospital Association recently announced that all Massachusetts hospitals are adopting a uniform policy to not charge patients or insurers for certain serious adverse events, including wrong-site surgeries, as defined by the National Quality Forum (NQF). In doing so, Massachusetts becomes only the second state in the nation to take this voluntary action.

Lynn Nicholas, FACHE, president and CEO of the Massachusetts Hospital Association, says the new policy builds on several groundbreaking transparency and quality initiatives. "This policy sends a strong message to patients that their hospital is committed to doing everything possible to eliminate these types of events," she says.

The policy, to be put into effect early this year, will codify long standing safety practices and fortify hospitals' commitment to preventing adverse medical events, Nicholas says. The policy will apply to any of the defined events and any subsequent care needed to manage the event. The hospital community will work collaboratively with an advisory group comprised of hospital members from clinical and financial departments, the physician community, the health insurance companies, and patient-consumer representatives to implement the plan, she says.

The policy initially will cover nine rare but serious adverse events and is based on nationally accepted definitions. This is the initial list:

- surgery on wrong body part;
- surgery on wrong patient;
- wrong surgical procedure;
- retention of foreign object;
- medication error injury;
- incompatible blood-associated injury;
- air embolism-associated injury;
- artificial insemination/wrong donor;
- infant discharged to wrong family.

Nicholas says as hospitals gain experience with the policy, the list will be expanded to include other events.

Under current practice, Nicholas says Massachusetts hospitals disclose the incident and apologize to the patient, as well as reporting the incident to separate programs at the Department of Public Health and the Board of Registration in Medicine. However, bills still are frequently sent to insurers and patients.

"Obviously, the ultimate goal is to reduce these errors," Nicholas says. "But as human error is inevitable, we'll attempt to learn from our mistakes, acknowledge the profound effect they have on patients and, ultimately, expand the list of serious adverse events that should not occur and for which hospitals should not charge."

John Banja, PhD**,** assistant director for health sciences and clinical ethics at Emory University in Atlanta, says the Massachusetts policy is the right thing to do, but he notes that hospitals may have questions as the list of errors grows. "Currently, the nine error categories that the Massachusetts Hospital Association has identified are all slam-dunk errors. Things will start getting epistemologically interesting when the list is expanded and we start being confronted with provocative questions like, 'Was there really an error here?'" Banja says. "This forces the question of how you define errors. Then there will be the issue of, 'Did the error cause harm? How much harm?"

The policy will force hospitals and health professionals to drill down to a finer understanding of error and its effects, Banja says. The effort is worthwhile, he says, because the financial impact on patients can be significant after medical errors**.**

Massachusetts follows Minnesota, the first state to formalize such a policy. On Sep. 18, 2007, Minnesota Gov. Tim Pawlenty announced a statewide billing policy for care made necessary by preventable medical errors, such as wrong-site

EXECUTIVE SUMMARY

Hospitals and some surgery centers in various states are agreeing to not charge for certain serious adverse events. Typically the policy covers errors that should be preventable. The effort is intended to promote a more responsible, ethical response to serious errors.

- All hospitals in Massachusetts have agreed to the voluntary policy.
- Minnesota hospitals report a good experience with a similar policy.
- Associations representing Washington state hospitals, physicians, and surgery centers have agreed to a similar policy.

surgeries and serious medication errors. Under the agreement, hospitals in Minnesota will not bill insurance companies and others for any of 27 types of reported adverse health events. The adverse health events are defined by the NQF. *(Editor's note: For more on the NQF's adverse event definitions, see the group's web site at www.quality forum.org. Enter "serious reportable events in healthcare 2006" in the search box, and click on "Serious Reportable Events in Healthcare 2006 Update — Reports.")* The Governor's Health Care Cabinet endorsed the plan created by the Minnesota Hospital Association and the Minnesota Council of Health Plans.

The policy built on past experience in which Minnesota hospitals individually recognized the need for a proactive billing policy. HealthPartners, a Minnesota-based insurer, was at the forefront of the issue in enacting a 2005 policy of not paying for care provided to their enrollees when it included certain serious preventable medical errors. Over the last few years, Blue Cross-Blue Shield worked closely with the hospital association to create the framework for this statewide policy.

Bruce J. Rueben, president of the Minnesota Hospital Association, says the policy is working well in his state and has not caused any problems so far. "Everything is going along smoothly because it was not a radical idea when we formalized the policy. We had been building toward this with individual hospitals," he says. "Now we are working with the health plans to pull out the care that is made necessary by an adverse event, because it can still get into the billing cycle. Occasionally, you don't know you had an adverse event until the bills have already gone out."

The policy has not had a financial impact on Minnesota hospitals because the events were rare, Rueben says. Most hospitals nationwide already waive the charges when responding to an adverse event, but usually on an informal basis and only when the right people intervene, Reuben says. A formal policy helps ensure that the charges are waived more consistently. "

The idea that there is service that won't be billed is of no consequence financially, in the grand scheme of things. When these things happen, the last thing that matters is what you bill for," he says. "So there's no reason not to do what's right. More than anything, it's just a matter of sorting through the complex billing process to take those charges out of the system."

Associations representing Washington state hospitals, physicians, and surgery centers have volunteered not to bill for care related to 28 specific serious adverse events. "This is current practice in most of our hospitals, and fortunately, adverse events are very rare" said **Leo Greenawalt**, president of the Washington State Hospital Association, which adopted the resolution along with the Washington State Medical Association and Washington Ambulatory Surgery Center Association (WASCA). "With the governor's help, all of the state's health care providers are coming together with a unified plan. It is simply what patients expect."

Members of WASCA think that it is important to support this issue, says **Terry Hawes**, vice president of National Surgical Care and president of the association. "We don't think that not charging for 'never events' will impact our industry as we are very proud of our track record," Haws says. ■

Same-Day Surgery Manager

Are there alternatives to building a surgery center?

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

There are times when a freestanding surgery center is not feasible. Some of the more significant reasons include:

- **Certificate of need (CON).**

Many states will not allow surgery centers to be built based upon an assessment of need for such a center if a quantifiable need cannot be proven. For example, a center may be allowed to be built if there aren't enough current operating rooms at other facilities to handle the amount of surgery.

- **Finances.**

With the collapse of the "subprime" lending market, it is becoming more difficult for surgeons and surgery centers to raise the capital for such a center. The average cost of a surgery center, not counting the land and the building, is often in excess of $5 million. It's not an endeavor for the faint of heart.

• **Reimbursement changes.**

While some procedures are enjoying a reimbursement increase, others have taken a dramatic decrease. There are some potential surgery centers out there that have a high specialty mix of the reduced reimbursement cases that make it not *financially* feasible (although it can still be politically feasible) to move forward.

• **Unwillingness of hospital partner.**

More hospitals are balking at the prospect of sharing the revenue of outpatient surgery with their surgeons. While they would like to partner, the loss of the outpatient surgery revenue could be catastrophic to some smaller hospitals.

At the same time, most hospitals need more surgical space for their growing demand. Often, they are constructing new operating rooms and surgical pavilions to have a more cost-effective alternative to high-cost inpatient surgery.

So, what are the options? Clearly surgeons are looking for increased efficiently in the workplace. Our own data show that efficiency in operations is the No. 1 reason surgeons want a surgery center. Hospitals obviously would love to increase their efficiency as well, but it is not inherent in most busy hospital surgical environments. Practices and attitudes need to change in order to become as efficient as we would all like to become.

Many of the surgeons involved in the development of surgery centers are in the building stage of their surgical practice or winding it down. Both parties are concerned about taking on the debt of investing in a surgery center and have fears of continued cutbacks in reimbursement.

Again, what can be done to satisfy all these issues? While it will not work for all, there is an alterative that we have found to be successful: Construction of a new surgical "pavilion" or outpatient department that does not allow for physician ownership, but is overseen and managed by a professional surgery center management company. The surgeons are included in all aspects of the design of the center (monthly meetings), so they include what excites them and drives the center to be patient- and surgeon-friendly. So many hospital surgery departments are designed around the needs of the hospital and their staff (oh, yes they are!) that often the surgeons do not feel they have or had a say in the development.

The surgeons need to be incorporated in all aspects of the management of the center. We have countless meetings with the surgeons and the staff to make sure the new surgical environment acts and feels like a freestanding, highly efficient facility. Just by including the surgeons and staff in the process drives the center to become more efficient, thus also making the center more profitable for the hospital. A win-win-win-win scenario.

(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.) ■

Regional block safer for mastectomy, reconstruction

Regional offers lasting pain control, cuts PONV

Although mastectomies have been performed in outpatient surgery programs for several years, skepticism about the safety of outpatient mastectomies with immediate reconstruction has kept some physicians from letting patients know about the option, say experts interviewed by *Same-Day Surgery*.

Physician concerns about the inability to control pain as well as postoperative nausea and vomiting (PONV) have been addressed by anesthesiologists at M.D. Anderson Cancer Center in Houston. They are using a technique that not only reduces PONV but also controls pain for up to 12 hours following the surgery.

"With the paravertebral block, we use a small amount of narcotic during surgery and light sedation," explains **Farzin Goravanchi**, DO,

EXECUTIVE SUMMARY

Pain control, postoperative nausea and vomiting (PONV), and complications make some surgeons reluctant to recommend outpatient mastectomy with immediate reconstruction. A new approach to anesthesia and a study of complication rates provide reassurance.

- Paravertebral block provides pain control for as long as 12 hours following surgery.
- The regional block eliminates the need for anesthetics and opioid narcotics that increase the risk of PONV.
- Patients who have no other medical conditions and have a support system at home are good candidates.

anesthesiologist at M.D. Anderson. "Our patients undergo their procedure and wake within five minutes, then are able to sit and eat in another 15 minutes."

The paravertebral block provides regional pain control with injections of local anesthesia around the nerves in the region of the breast. Typically, mastectomies with immediate reconstruction require a one- to two-day stay due to the PONV that results from the use of general anesthesia and opiate narcotics during surgery and the need for continued pain control following surgery, says Goravanchi. "Some patients who receive the paravertebral block are ready to go home in as little as two hours after surgery, with the majority of patients staying for three to four hours," he says. Pain is controlled by the block for up to 12 hours so, although patients go home with a prescription for pain control medication, most patients don't use the medication or use very little of it, he adds.

Not all patients are candidates for a paravertebral block, Goravanchi says. "Patients who are morbidly obese, who have spinal deformities or have had spinal surgery, and patients who are sensitive to the anesthetic are not appropriate for the regional block," he explains.

Although the complication rate for paravertebral blocks is low, less than 0.2%, there is a risk for hypotension or pneumothorax, Goravanchi says. "This is not a procedure that can be self taught because it does have a higher risk of pneumothorax than other regional blocks," he says. "I believe that an anesthesiologist needs to train with physicians who have performed these blocks on a regular basis."

There are only a handful of medical centers that use paravertebral blocks, with M.D. Anderson and Duke Medical Center in Raleigh, NC, as the leaders in the technique, says Goravanchi. Anesthesiologists can find courses offered by these facilities, but an anesthesiologist competent in the procedure also should monitor them before they perform one alone, he points out. "Fifty blocks is considered the gold standard for determining competence," he adds.

Low complication rate

Offering mastectomies with immediate reconstruction on an outpatient basis is especially important for this particular population of patients, points out **Stephanie Bernik**, MD, chief of breast surgery at St. Vincent's Comprehensive Cancer Center in New York City and co-author of a study that demonstrates the safety of outpatient mastectomy with immediate reconstruction.[1]

"These patients are not only dealing with a surgical procedure but also with cancer and continuing treatment," she explains. "Staying in the hospital for the surgery makes the whole process even bigger and more stressful." There are criteria that patients must meet, but if they want to go home the same day of surgery, it is an option, she adds. "Patients who qualify for outpatient mastectomy and reconstruction are younger patients with no other medical problems or older patients with no major medical problems," says Bernik. "We also require that they have a strong support system or in-home nursing care at home for the immediate recovery period."

The patients are scheduled as the first patient of the day so there is time to adequately monitor them before discharge, she points out. With reconstruction, the procedure lasts about four hours, and patients need another four to five hours for recovery and monitoring, she says.

Reconstruction in the outpatient setting is the placement of tissue expanders, says **Michael J. Miller**, MD, a plastic surgeon at Ohio State Medical Center. "The expander is an inflatable device implanted under the muscles of the chest wall and is usually in place for up to four months," Miller says. "Saline is used to inflate the tissue expanders to simulate the breast shape," he explains. A second procedure removes the expanders and places implants to complete the reconstruction, Miller says. "I always tell my patients that reconstruction is not a single operation but a process," he adds.

Bernik says her study found few complications in outpatients and only one case that required hospitalization, which was for postoperative bleeding. "We discovered that the patient had been using a herbal supplement that increases the risk of bleeding, but she had not told us about the supplement prior to surgery," Bernik explains.

With the proven safety and the new anesthesia options, surgeons should offer outpatient mastectomy and reconstruction to patients who express a strong desire to go home immediately after surgery, she says. "The psychological benefits of being at home result in a better recovery," Bernik says. "The patient doesn't feel as sick and is better able to deal with the continuing treatment for cancer."

Patient education is critical, says Goravanchi. "You need the patient, the surgeon, the nursing staff, and the anesthesiologist to work as a team with outpatient mastectomy and reconstruction," he says. "It's important that the patient thoroughly

understand the procedure and what to expect during recovery," Goravanchi says.

The successful pain control of the paravertebral block has created a need to add an extra caution to patients' postoperative instructions, he says. Because the block is so effective, patients don't experience pain or sensitivity that usually causes them to moderate activity following surgery, he says. Goravanchi explains, "The block works so well that we have to tell patients not to be too active because they have just undergone surgery."

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SAMBA issues new guidelines for PONV

Pediatrics and post-discharge addressed

EXECUTIVE SUMMARY

Recently released guidelines for the control of postoperative nausea and vomiting (PONV) provide information on recommended medications and dosage for pediatric patients, proper identification of patient risk for PONV, a treatment protocol plan, and recommendations for treatment of post-discharge nausea and vomiting.

- The guidelines from the Society for Ambulatory Anesthesia are based on a review of scientific literature that has been published since the development of previous guidelines.
- Pediatric patients are specifically addressed.
- Tips to reduce the baseline risk of PONV no longer recommend the use of concentrated oxygen.

Increased emphasis on patients at risk for postoperative nausea and vomiting (PONV), enhanced information on anesthesia for pediatric patients, and focus on post-discharge PONV are three significant changes in the *Society for Ambulatory Anesthesia Guidelines for the Management of Postoperative Nausea and Vomiting*.

Published in the December 2007 issue of *Anesthesia & Analgesia*, the guidelines update the 2003 guidelines, according to **Tong J. Gan**, MD, professor of anesthesiology at Duke University Medical Center in Durham, NC, and co-author of the guidelines. "The guidelines committee reviewed over 300 articles about PONV that have been published since we published the previous guidelines," he explains. "There has been a great deal of research, and we have learned a lot about PONV and side effects of different drugs in recent years." **(For information on obtaining the guidelines, see source box, p. 34.)**

The guidelines include an updated list of indicators of risk for PONV for adults and pediatric patients, says Gan. Risk factors for adults are female gender, nonsmoker, history of PONV, and use of postoperative opioids. Risk factors for pediatric patients are surgery lasting longer than 30 minutes, age older than 3, strabismus surgery, and history of POV or PONV in family members. "It's important to listen carefully to patients to identify these risks, especially previous history of PONV," he says. "Once you've identified the need for prophylactic treatment, don't just focus on one drug."

An algorithm for treatment of PONV identifies the various drugs available and how to determine dosage for adults and pediatric patients, he says. Specific information on pediatric medications is a significant addition to the new guidelines, Gan says. "In the 2003 guidelines, we did not talk specifically about pediatric patients, but with more pediatric surgeries occurring in the ambulatory setting, it is important to address this population," he says.

Determining proper dosage for children is difficult because clinical trials for medications are conducted with adults, so clinicians differ in their opinions on proper dosage for pediatric patients, Gan says. "Our guidelines include dosage recommendations based on the literature review we conducted," he says.

One key point made in the guidelines is the effectiveness of using a combination of antiemetic treatments as opposed to a single drug, says Gan. "One drug may not be enough, so the guidelines include a table that describes effective combination therapies," he says.

Another new section in the guidelines focuses on post-discharge nausea and vomiting, points out Gan. When patients at risk for PONV are identified and treated prophylactically, you still may see some nausea and vomiting in the recovery room, he says. "But, it is also important that we consider the nausea and vomiting that occur on the ride home, or even on Day 2 or Day 3," Gan says. "Evidence suggests that we should not use the same drugs after the patient has left the facility, so we identified different drugs that can help patients

RESOURCES

For more information or to obtain a copy of the *Society for Ambulatory Anesthesia Guidelines for the Management of Postoperative Nausea and Vomiting*, contact:

- Tong J. Gan, MD, Professor of Anesthesiology, Duke University Medical Center, Raleigh, NC. Telephone: (919) 681-2470. E-mail: tjgan@duke.edu.

Postoperative and Post-discharge nausea and vomiting guidelines are also available from the American Society of PeriAnesthesia Nurses. To see the guidelines go to www.aspan.org, go to "clinical practice" on the top navigational bar and scroll down to "PONV/PDNV guidelines."

after the day of surgery." Transdermal scopolamine as well as orally disintegrating ondansetron tablets may provide a longer lasting antiemetic effect for patients who experience post-discharge nausea and vomiting, he adds.

In addition to identifying drugs that can prevent or treat PONV, the guidelines also suggest methods to reduce the baseline risk of PONV, says Gan. The strategies include: avoidance of general anesthesia by using regional anesthesia, use of propofol, avoidance of nitrous oxide, avoidance of volatile anesthetics, minimization of intraoperating and postoperative opioids, minimization of neostigmine, and adequate hydration. One item missing from the list of strategies to reduce the risk of PONV is the use of oxygen, he points out.

"We used to recommend that a high concentration of oxygen can be helpful in reducing PONV, but the scientific literature does not support that strategy," he says. "We no longer recommend this a way to minimize PONV."

There is a growing awareness of the need to minimize PONV, Gan says. "Although the medications to prophylactically treat PONV add to the cost of the case, it is very cost-effective for high-risk patients when you consider the cost of delayed discharge or admission to the hospital," he explains. "I believe that prophylactic treatments are more widely used, especially as costs of some drugs decrease."

The cost of Zofran dropped from $16 per dose to $1 per dose because the drug is now available as a generic, Gan says. Even with lower-cost drugs, don't use only the least expensive, he warns. "To keep PONV treatment cost-effective, it is still important not to rely only on one drug," Gan says. "The treatment won't be cost-effective if it doesn't work." ■

Partial knee replacement is option for some patients

Patients find quick return to normal activity

Patients with limited arthritis in their knees typically had to live with pain and discomfort or wait until deterioration reached a point at which they could undergo a total knee replacement, but new technology gives patients a third option that allows them to return to normal activity without pain earlier in their lives.

Partial knee replacements reduce the cost of the procedure and enable a patient's quicker return to normal activities. The procedure is another orthopedic surgery that easily can be moved to the outpatient surgery program.

"Because this procedure is minimally invasive there is little blood, and it is routinely performed on younger, healthier patients, so it is ideal for the outpatient or 23-hour stay setting," says **Keith Berend**, MD, orthopedic surgeon at Joint Implant Surgeons in New Albany, OH. "Patients who are good candidates for this procedure are usually working, so they don't want to undergo a procedure that requires the eight- to 10-week recovery required by a total knee replacement, but they want to eliminate the joint pain caused by arthritis in their knee."

A partial knee replacement can be performed on patients who have knee arthritis limited to one

EXECUTIVE SUMMARY

The ability to go home the day of surgery, fewer weeks of recovery, and a more natural movement of the knee are just a few of the benefits that partial knee replacement offers to patients with arthritis in their knees.

- Patients with arthritis limited to one side of the joint are candidates for the procedures.
- Thorough preoperative patient education is necessary to set expectations and produce a good outcome.
- Physical therapy should be arranged prior to surgery so there is no delay in follow-up treatment.

side of the knee joint and have no torn meniscus, says **Frosty Moore**, MD, an orthopedic surgeon in Austin, TX. "I always order an MRI to rule out other damage to the knee," he says.

In addition to making sure that the patient doesn't have any other knee damage, there are other attributes of the ideal candidate for partial knee replacement, suggests Moore. "Patients must be motivated to follow through on physical therapy, they must understand pain and how to deal with it, and they must be younger and willing to get up and get moving quickly," he says.

In a partial knee replacement, an implant replaces the diseased part of the knee to correct the deformity caused by arthritis and to restore the knee to the pre-diseased state, says Berend. Partial knee replacement requires less removal of bone and cartilage and gives patient a more natural motion following surgery, he adds.

Berend uses the Biomet Partial Knee System that has been approved by the Food and Drug Administration (FDA) for this use. It differs from other partial knee implants because it contains a free-floating meniscal bearing, he says. **(For information on how to contact the manufacturer, see resource box, above right.)**

The FDA approval mandates specific training with the device before use on patients, he points out. This is an important issue for outpatient surgery managers who are reviewing privileges for new procedures, Berend adds. "Not only should surgeons who want to perform partial knee replacements on an outpatient basis be experienced with the procedure in the inpatient department, but if they are using the Biomet system, they must attend Biomet-specific training courses," he says. This additional training ensures not only that the surgeon understands the implant, which does differ from other implants, but that all other aspects of the procedure and the recovery process are addressed, he adds.

Training for the operating room staff involves a demonstration of the special leg holder that is used for the partial knee replacement, points out Berend. "This leg holder and the position in which the patient's leg must be placed during the procedure is different from other knee procedures," he says.

RESOURCES

The following companies offer partial knee implants:

- **Biomet**, 56 E. Bell Drive, P.O. Box 587, Warsaw, IN 46581-0587. Phone: (574) 267-6639. Fax: (574) 267-8137. Web: www.biomet.com.
- **Wright Medical Technology,** 5677 Airline Road, Arlington, TN 38002. Phone: (800) 238-7117 or (901) 867-9971. Fax: (901) 867-9534. Web: www.wmt.com.
- **Stryker Orthopaedics**, 325 Corporate Drive, Mahwah, NJ 07430. Telephone: (201) 831-5000. Web: www.stryker.com.

Although the implant and the surgeon's skill are important to a good outcome, Moore believes that patient education prior to the procedure is just as critical to a successful recovery. "We set expectations up front by lining up physical therapy, setting up an exercise schedule, and continuous passive motion," says Moore. Patients also are told what type of pain to expect so they can distinguish between normal pain during recovery and unusual pain that requires a call to the surgeon, he adds.

Pain control begins before the procedure as the anesthesiologist administers a femoral nerve block and then places an indwelling catheter that will remain for two days to block the pain in the

CNE/CME instructions

Physicians and nurses participate in this CNE/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

■ Payers start reimbursement cuts — How will you survive?

■ Protocols for safe med administration in outpatient surgery

■ Requirement to have circulating nurse in the OR

■ Fatal fall after surgery reported – How can you avoid one?

knee, explains Moore. "By reducing the pain during the first days, we increase the patient's mobility and that improves recovery," he says.

Because the typical patient for this procedure is between 40 and 60 years of age and is working, reimbursement is not an issue, Moore says. Patients are usually covered by private insurance offered through their employers rather than Medicare, he explains. "The cost of the implant varies according to contracts with the vendor, but insurance companies like the lower cost of the outpatient procedure compared to the cost of an inpatient stay," he says.

Partial knee implants last up to 20 years, so there should be no reason for another surgery, says Berend. "There is always a chance that arthritis might develop on the other side of the knee but generally, it does not," he says.

Patients are grateful that the partial knee replacement option exists, says Moore. "Our pre-op planning and education teaches patients how to recover, so after the surgery they are ready to go home, which is where they want to recover," he says. ■

CNE/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.

9. Beginning April 1, Aetna will pay monitored anesthesia care (MAC) for individuals undergoing standard upper or lower endoscopic procedures only under certain circumstances, such as when patients are:
A. Pregnant
B. 21 years or younger
C. 60 years or older
D. ASA Class IV

10. How long does the paravertebral block control pain for patients undergoing mastectomies with immediate reconstruction, according to Farzin Goravanchi, DO?
A. Six hours
B. Eight hours
C. 10 hours
D. 12 hours

11. What is one recommendation for reduction of baseline risk for postoperative nausea and vomiting that is no longer included in guidelines issued by the Society for Ambulatory Anesthesia, according to Tong J. Gan, MD?
A. Hydrate the patient well
B. Keep the patient warm
C. Use concentrated oxygen during surgery
D. Select anesthetics carefully

12. What are the key components to ensure the successful outcome of partial knee replacements, according to Frosty Moore, MD?
A. Set expectations and schedule physical therapy prior to surgery
B. Obtain insurance verification and MRI studies
C. Explain normal pain and prescribe continuous passive motion prior to surgery
D. A and C

Answers: 9. A; 10. D; 11. C; 12. D.