Fall 2011 Volume 21 Number 4 OPHTHALMIC MUTUAL INSURANCE COMPANY

Ophthalmic Risk Management Digest
OMIC DIGEST

Surgical Team Briefings Reduce Malpractice Risks

By Anne M. Menke, RN, PhD
OMIC Risk Manager

Communication breakdowns are the primary cause of 70% of serious adverse events reported to The Joint Commission (TJC).[1] Nowhere is clear and consistent communication more important than in the operating room. To facilitate the exchange of critical information among surgical team members, the World Health Organization (WHO) introduced a basic surgical checklist in 2008, proposing it as a method to "help ensure that teams consistently follow a few critical safety steps and thereby minimize the most common and avoidable risks endangering the lives and well-being of surgical patients."[2] The checklist divides surgical care into three phases: sign-in before anesthesia, time-out before incision, and sign-out before transfer from the OR to the post-anesthesia recovery room (PACU).

In addition to the elements of the universal protocol (identification of the patient, procedure, site, and side), the WHO time-out and sign-out include briefings from the surgeon, anesthesia provider, and nurse that—if consistently implemented—would prevent many malpractice claims reported to OMIC. The surgeon addresses critical or unexpected steps in the procedure, its planned duration, and the anticipated amount of blood loss. The anesthesia provider relates any patient-specific concerns such as cardiopulmonary diseases, arrhythmias, difficult airway, etc. The nurse confirms the sterility of the instruments and covers any equipment issues.

This article discusses some ophthalmic-specific adaptations of the WHO surgical checklist prompted by OMIC's claims experience. We were aided in our analysis of surgical team briefings by eye surgeons from Rush University Medical Center. OMIC Directors Steven V. L. Brown, MD, and Tamara R. Fountain, MD, along with their colleagues Jack Cohen, MD, Randy Epstein, MD, and Diany Morales, MD, presented their thoughts on critical steps in some ophthalmic surgeries to nurses and technicians who attended the 2010 ASORN annual meeting. With their permission and our thanks, some material from their talk is presented here, and supplemented with OMIC closed claims data and guidance from other resources.

continued on page 4

MESSAGE FROM THE CHAIRMAN

During the past year, my first as your Chairman, I have gained a much better understanding of the unique, positive interrelationship between the American Academy of Ophthalmology and OMIC. One striking example of that close relationship was brought to my attention during the Society Presidents' Breakfast and Recognition Awards ("awards breakfast") at the Academy's 2011 Annual Meeting in Orlando. For several years, OMIC has been privileged to sponsor this event, which gives special recognition to ophthalmologists and ophthalmic societies that have made important contributions to the Academy and ophthalmology.

Leading the ceremonies was Daniel J. Briceland, MD, Academy Secretary for State Affairs. I know Dr. Briceland very well as he has been active on several OMIC committees since 2008 and will serve his first term on OMIC's Board of Directors beginning in 2012. After attending the awards breakfast, what I more fully appreciated was how Dr. Briceland works closely with OMIC Risk Management and Marketing staff and Academy Ophthalmic Society Relations staff to build and strengthen the cooperative venture educational

continued on page 2

IN THIS ISSUE

2 Eye on OMIC
Refractive Surgery Guidelines Revised

3 Policy Issues
Outpatient Surgical Facilities

6 Closed Claim Study
Retained Mitomycin-C Sponge During Combined Trabeculectomy and Cataract Surgery

7 Risk Management Hotline
"Standing Order" Medications

8 Calendar of Events
Upcoming Seminars for 2012

Eye on OMIC

OMIC

The Ophthalmic Risk Management Digest is published quarterly by the Ophthalmic Mutual Insurance Company, a Risk Retention Group sponsored by the American Academy of Ophthalmology, for OMIC insureds and others affiliated with OMIC.

OMIC
655 Beach Street
San Francisco, CA
94109-1336

PO Box 880610
San Francisco, CA
94188-0610

Phone: (800) 562-6642
Fax: (415) 771-7087
Email: omic@omic.com
Web: www.omic.com

Refractive Surgery Guidelines Revised

Periodically OMIC reviews and, as warranted, revises its refractive surgery requirements. At its September meeting, the Board of Directors adopted changes to OMIC's underwriting requirements for refractive lens exchange (RLE), phakic implants, and PRK.

First, OMIC modified the patient selection requirements for treatment of myopia with refractive lens exchange. Under the previous guidelines, patients had to be presbyopic, age 40 or older, and have at least 6 diopters and not more than 15 diopters of myopia. Recent articles from Europe present evidence that the risk of retinal detachment following RLE in high myopes may not be as high as originally thought. Another study failed to show an increased risk with cataract surgery or RLE if a PVD is present preoperatively. Although this data is not definitive, the company determined its maximum permissible degree of myopia could be increased. OMIC is not aware of any peer-reviewed studies that support a significant reduction in the minimum degree of myopia required for refractive lens exchange, but a slight reduction was approved. RLE is now permitted for presbyopic patients age 40 or older with 5 to 15 diopters of myopia, or above 15 diopters up to 20 diopters if a PVD is present.

In addition, OMIC reduced the minimum interval between primary RLE procedures and between primary phakic implant procedures from one week to five days. This shortened interval improves scheduling flexibility and patient convenience without significantly increasing risk. Most cases of postoperative endophthalmitis occur three to five days after intraocular surgery, and the five-day interval still allows sufficient healing time so the surgeon can evaluate the vault of the lens, determine the accuracy of the IOL calculation, or evaluate the effectiveness of LRIs before proceeding with the second eye. Because of their increased risks and longer recovery periods, OMIC does not offer coverage for bilateral same-day RLE or phakic implants.

Finally, OMIC modified its underwriting requirements for coverage of bilateral simultaneous PRK to eliminate the requirement that patients meet all FDA guidelines with respect to age, astigmatism, and myopia, thereby permitting off-label procedures to be performed on both eyes on the same day.

Message from the Chairman

continued from page 1

alliances between OMIC and ophthalmic state, subspecialty, and specialized interest societies across the country. There are currently 42 of these cooperative venture agreements, 14 of which were initiated since Dr. Briceland's tenure at OMIC began in 2008. Clearly, by virtue of his active involvement with both organizations, Dr. Briceland was able to work with Academy and OMIC staff to facilitate these important collaborative relationships.

The awards breakfast is also an opportunity to recognize participants in the Academy's Leadership Development Program (LDP). The Academy established the LDP to identify and develop future leaders to promote ophthalmology locally and nationally. I am a graduate of the LDP and I was pleasantly surprised to learn that six other current OMIC Board and Committee members, including Dr. Briceland, are also graduates of this program. In effect, LDP graduates account for about one-third of OMIC's own leaders.

In 2011, I experienced firsthand the Academy's respect and appreciation for its relationship with OMIC. This year, the Academy Board of Trustees recognized OMIC for its "decades of contributions" to the ophthalmic community with a Special Recognition Award. The award cites OMIC's work in quality of care programs, patient safety initiatives, and appropriate advocacy for members. I believe that by honoring OMIC in this way the Academy is also paying tribute to itself. The leadership that the Academy has nurtured within our profession has often become OMIC's leadership. In turn, OMIC has found ways to give back to the Academy through its support of ophthalmic society relations. Throughout my tenure as OMIC Board Chairman, I look forward to continuing this mutually beneficial relationship between our two organizations.

John W. Shore, MD
Chairman of the Board

Outpatient Surgical Facilities

By Kimberly Wynkoop
OMIC Legal Counsel

In 2005, a task force of OMIC Board and staff members examined and revised OMIC's underwriting requirements and risk management guidelines for coverage of outpatient surgical facilities (OSFs). The task force produced a rewritten and reformatted "Outpatient Surgical Facility Application" (OSFA) that was adopted by the OMIC Board of Directors and updated several times since with minor changes. All ambulatory surgery centers, laser surgery centers, and in-office surgical suites used by physicians other than the owners and their employees are required to complete the OSFA, which contains detailed information about OMIC's underwriting requirements. It is important that insureds abide by all underwriting and notification requirements specified in the OSFA, as failure to do so could result in uninsured risk or termination of coverage.

If approved, the OSF is generally included as an additional insured under the owner physicians' or owner entity's policy at shared limits of liability with the primary insured. Separate limits may be purchased for an additional premium. Coverage extends to the OSF and to each person affiliated with the OSF as a member, officer, director, partner, or shareholder for (1) direct patient treatment provided by the entity, (2) vicarious liability arising from direct patient treatment provided by any other person rendering services on behalf of the entity, and (3) liability arising from professional committee activities conducted by the OSF-affiliated persons described above on behalf of the OSF. Coverage also extends to non-physician employees of the facility (except ODs and CRNAs) for liability arising from their direct patient treatment rendered on behalf of the facility or the direct patient treatment of someone under their supervision, direction, or control.

Two changes of note were made to the OSFA in 2007. First, it was modified to allow anesthesia providers to carry limits of at least $1M per claim if the OSF is insured at limits of $1M or greater, rather than requiring the anesthesia providers to carry the same liability limits as the OSF. This was done because some carriers were reluctant to offer higher limits to certain specialties such as anesthesiology, and when higher limits were available, they tended to be cost prohibitive.

Second, OMIC decreased the emergency response equipment requirements applicable to laser refractive surgery centers in which only a single oral sedative is given to the patient. This was done because such procedures generally are performed on relatively young, healthy patients. The OSF requirements were modified such that oxygen, suction, pulse oximeter, and an emergency power source were recommended, but not required, for facilities in which the only procedures performed are laser refractive surgery.

The full list of underwriting requirements is listed in the OSFA; the following is an overview and summary. If you have questions about these requirements, contact your underwriter. If you need help implementing any changes, OMIC's risk management staff can provide resources and advice.

Since OSFs do not usually have critical care specialists to respond to emergencies, patients must be carefully selected for outpatient procedures. OMIC uses the American Society of Anesthesiologists physical status classification system plus age to determine which patients are eligible for surgery at OMIC-insured OSFs. Persons 15 or older must be ASA class 1, 2, or 3. Persons 6 months to 14 years must be class 1 or 2. Infants under 6 months and those between 6 months and 14 years who are class 3 must receive care only in centers specifically designated for such patients. OMIC will consider exceptions to these selection requirements on a case-by-case basis.

Sedation risks for ophthalmic patients in OSFs can be high because such patients may be older and have comorbid diseases that complicate anesthesia care. Children pose additional risk, as well, as they can slip into deeper levels of sedation, which compromise their protective reflexes. If anesthesia providers are present, health care providers must have at least Basic Life Support for Healthcare Providers certification; advanced certification is recommended (ACLS or PALS). Non-anesthesia providers who prescribe, administer, or monitor effects of moderate sedation or any pediatric sedation must demonstrate an understanding of pharmacological agents/reversal agents and recognize associated complications of each, be able to rescue patients who enter deeper sedation, be capable of establishing an airway or providing positive pressure ventilation, and have advanced age-specific cardiopulmonary resuscitation skills (ACLS or PALS). The OSF cannot employ anesthesiologists, but may contract with them and may employ CRNAs.

Due to sterility issues, intraocular procedures should be performed only in facilities approved for cataract surgery by Medicare or accredited by one of the recognized accreditation organizations. Gastrointestinal procedures may be performed at OMIC-insured OSFs if they have separate rooms and equipment dedicated for GI surgical/endoscopy procedures. Separate and appropriate infection control guidelines must be established for the GI unit. OMIC may permit other non-ophthalmic procedures, subject to underwriting review and approval. Others are specifically not permitted, such as obstetric, cardiac, pain management, and surgical weight control procedures.

There are also underwriting requirements that address assessment and monitoring, licensure, organized risk management programs, structured peer review processes, appropriate advertising, documentation of care, and insurance and regulatory compliance.

Surgical Team Briefings Reduce Malpractice Risks

continued from page 1

Corneal Transplant Surgery

When all corneal transplantations involved performing a penetrating keratoplasty (PK) to place full-thickness grafts, there was less chance for confusion. In the early 2000s, ophthalmologists developed ways to remove and replace only the part of the cornea that was diseased or damaged. Dr. Randy Epstein explained that the corneal transplant surgeon now needs to verify the procedure and tissue type in the team briefing. The names for the surgical techniques can be confusing for team members unfamiliar with corneal anatomy but must be understood to ensure that the proper instruments and donor tissue are available. PK requires full-thickness donor tissue, while deep anterior lamellar keratoplasty (DALK), Descemet's stripping automated endothelial keratoplasty (DSAEK), and Descemet's membrane endothelial keratoplasty (DMEK) use only partial-thickness corneal donor tissue. Some surgeons use a femtosecond laser rather than a metal trephine to create specially shaped overlapping edges in the patient and the graft that create a tighter fit and require fewer sutures, so laser safety measures must be implemented. To comply with tracking regulations and prevent mix-up and contamination, the surgeon also should discuss donor tissue accountability measures that need to be followed when human cells, tissues, and cellular and tissue-based products (HCT/P) are implanted; these apply to amniotic membrane grafts as well as to corneas. Careful discussion of these steps helps prevent corneal graft failure.[3]

Glaucoma Surgery with MMC

Dr. Steven Brown educated nurses on current medical and surgical treatments for glaucoma and complications of trabeculectomy. Nurses need to be prepared to help the surgeon manage intraoperative complications, which occur in 11% of trabeculectomy cases. The most serious ones are suprachoroidal hemorrhage, considered an emergency, and a conjunctiva buttonhole. The glaucoma surgical team needs to be aware of the use and risks of Mitomycin-C, a chemotherapeutic medication used off-label not only in glaucoma procedures but also in many other types of ophthalmic surgery to reduce inflammation, prevent scarring, and decrease the likelihood of recurrence of conditions such as pterygium. Small sponges are soaked in the MMC and then placed in or on the eye. MMC can cause significant ocular complications, so the number of sponges, as well as the dosage, location, and duration of MMC application, needs to be specified and verified in the standing orders, surgical briefing, sign-in, and sign-out. Medical malpractice lawsuits have been filed after pieces of sponge material were left in the eye, resulting in more exposure to MMC than intended. Depending upon the ASC or hospital policy, facilities may be obliged to report a retained sponge case to their accreditation agency as a sentinel event. Some facilities have been fined by state licensing boards for retained sponges. Prevention of retained MMC sponges has proved challenging due to their size and tendency to shred. See the **Closed Claim Study** for details of an OMIC case and risk management recommendations on ensuring safe removal of these sponges. Staff safety is also a concern when MMC is used, as it is a toxic and potentially hazardous drug. The American Society of Ophthalmic Registered Nurses (ASORN) has prepared a laminated card detailing the "top tips for safe handling, use, and disposal" of MMC. ASCs would be well-served to obtain a copy and post it in the medication preparation room.

Oculofacial Surgery in the Setting of Anticoagulants

Dr. Tamara Fountain focused on what she termed "the art of managing the risk of perioperative systemic anticoagulation." Patients presenting for oculofacial procedures, which have a higher risk for hemorrhage than other ophthalmic surgeries, are often taking medications prescribed by their primary care physician or cardiologist, such as aspirin, warfarin (Coumadin), and clopidogrel (Plavix). These drugs are intended to prevent heart attacks and strokes, and may need to be taken for as long as a year following procedures such as cardiac stents to prevent death. In addition to prescription drugs, many patients manage their aches and pains with non-steroidal anti-inflammatory medicines, some of which have blood-thinning properties. Finally, patients may supplement their diets with the three g's (garlic, ginger, and ginkgo biloba) as well as feverfew and grape seed, all of which can increase bleeding. There is no clear-cut consensus within the ophthalmic community on whether to stop or continue anticoagulants before ocular procedures. Dr. Fountain explained that rational decisions need to be made in each case by weighing the relative risks of each intervention. Perhaps the most important step in the risk management process is a candid discussion with the patient about the risks of continuing or stopping anticoagulation; the patient must understand and accept the increased risk of either approach.

The surgical team should address the specific procedure's risk of hemorrhage and the patient's relative risk of a thromboembolic event during the sign-in before anesthesia and as part of the team briefing at both sign-in and sign-out. If the surgeon and physician who prescribed the anticoagulant decided to stop it, the team needs to ensure that the patient did indeed stop it, then check a preoperative INR blood test for patients on warfarin, monitor for signs of a thromboembolic event, and review with the patient when the medication should be restarted. If anticoagulants are continued during ocular surgery, bridge medication therapy may be indicated, pain and blood pressure need to be well controlled, and fibrotic agents must be available. Nurses in the OR and PACU, and the patient, need to be reminded to watch for signs and symptoms of hemorrhage, such as

subcutaneous hematoma, increased and prolonged swelling, asymmetry, and orbital hemorrhage, which could lead to a compromised surgical result, vision loss, and exsanguination. OMIC has had claims involving both thrombolic events and hemorrhage that resulted in significant patient harm and large indemnity payments. Careful collaboration with the primary care physician or cardiologist about the decision to continue or stop medications and well-planned teamwork during the procedure could help prevent such claims.[4]

Retina Surgery with Gas

Surgery to treat retinal detachment, diabetic retinopathy, and proliferative vitreoretinopathy often involves the use of a gas to tamponade the retinal hole. The colorless, odorless gas is supplied at 100% in cylinders and must be diluted with filtered air to the percent ordered by the surgeon in order to achieve the therapeutic effect without causing serious harm to the patient's eye. Dr. Jack Cohen explained that if the gas delivered is above a certain level, its volume can increase, leading to elevated intraocular pressure, possible central retinal artery occlusion, and loss of vision via many mechanisms. The surgical team needs to know the concentration and work together to ensure that the dilution process is correctly followed. Multiple steps are critical. Once the tubing from the gas cylinder to the syringe has been "rinsed" of air, the syringe is filled about half way with pure gas. The tubing connecting the syringe to the gas tank is now disconnected and the syringe stopcock is turned toward the syringe so none of the gas leaks out of the syringe. Next, the surgeon and nurse agree on the concentration of gas for the patient. The nurse repeats the concentration back to the physician so each can confirm the desired amount. The surgeon watches the scrub nurse push the pure gas from the syringe to the desired percentage labeled on the syringe. The physician then watches the nurse dilute the pure gas by pulling filtered air into the syringe to the labeled line. The syringe stopcock is now turned toward the syringe to prevent losing any of the diluted gas. At this point, the gas has been diluted correctly, and both the physician and nurse have witnessed and verified the dilution process. This communication is especially important when there is a new member of the team. OMIC settled a case where the ophthalmologist ordered a 15% concentration. His usual assistant was not available, so the hospital assigned another ophthalmic nurse, who did not tell the team that she was unfamiliar with the process of diluting gas. The surgeon did not watch the dilution process, but did ask for oral confirmation of the percentage, which the nurse stated was 15%. The patient developed a significant rise in intraocular pressure after the procedure, leading to damage to the optic nerve and NLP vision. The nurse informed the surgeon the next day that she had not diluted the gas at all. Defense experts supported the surgeon's attempt to confirm the amount, but felt he could have prevented the nurse's error from impacting the patient by watching her dilute the gas or preparing it himself. OMIC contributed 35% toward the settlement on behalf of the surgeon.

Strabismus Surgery Briefing

There are a number of issues specific to strabismus surgery that warrant a team briefing. Dr. Diany Morales first pointed to the need to verify not only the correct patient and eye as in all surgeries but also the correct amount of surgery and the correct muscle. She advocates having the office record available in the OR and writing the operative plan on the white board so it is visible to the surgeon ("RMR recession 6 mm, RLR resection 8 mm"). Muscle confusion can be caused both by disorientation from sitting at the head of a patient as well as globe rotation from deep anesthesia. Safeguards include checking the distance of the insertion site to the limbus. Globe perforation is a known risk and clear two-way communication is vital. During the briefing, the surgeon reminds OR staff to check before making any adjustment to the bed, drapes, or IV, and states that she will announce the critical moment when she is about to pass scleral sutures. The final key issue to address is anesthesia risk, as many patients undergoing strabismus surgery are children with issues such as prematurity or comorbidities, and general anesthesia is often required. Patients undergoing strabismus surgery are at higher risk for two potential complications: bradycardia and malignant hyperthermia. The surgeon prepares the team to manage bradycardia by announcing when the rectus muscle will be under traction, as this can provoke the oculocardiac reflex, and asking the anesthesia provider to announce if the heart rate slows to an unsafe level so the surgeon can ease the amount of traction. Like untreated bradycardia, malignant hyperthermia is potentially fatal, even though better recognition and treatment has decreased the mortality from 70 to 10%. It is a metabolic disorder characterized by extreme heat production and muscle breakdown that is known to be more common in patients with strabismus. The team must have the appropriate equipment and be briefed on prompt recognition and management.

Surgeons have a leadership role to play in briefing team members and preventing potential errors from reaching the patient. They can also model a commitment to patient safety by using surgical checklists and team briefings for all procedures, regardless of location.

1. "Improving Handoff Communications: Meeting National Patient Safety Goal 2E." *Joint Perspectives on Patient Safety.* JCAHO, 2006; 6(8):9-15.
2. World Alliance for Patient Safety. "WHO Surgical Safety Checklist and Implementation Manual." World Health Organization, 2008; www.who.org, accessed 10/31/11. This list was enhanced by the Assn of PeriOperative Registered Nurses (AORN) to include a pre-procedure check-in that helps facilities comply with TJC universal protocol requirements and national patient safety goals.
3. See"Current Good Tissue Practices for Human Cell, Tissue, and Cellular- and Tissue-Based Products" at www.fda.gov.\.
4. See "Hemorrhage Associated with Ophthalmic Procedures" at www.omic.com for a detailed discussion of anticoagulants and measures needed to address hemorrhage.

Closed Claim Study

Retained Mitomycin-C Sponge During Combined Trabeculectomy and Cataract Surgery

By Ryan Bucsi, OMIC Senior Litigation Analyst

ALLEGATION

Retained foreign body. Failure to remove Mitomycin-C soaked sponge following surgery.

DISPOSITION

Settled for $35,000.

Case Summary

An OMIC insured performed an uncomplicated combined trabeculectomy and cataract removal with lens implantation on the patient's right eye. On postoperative day one, the patient complained to the insured of pain and blurry vision. During the week one postoperative visit, she informed the insured that she had been using the prescribed medications and the right eye was no longer painful but it itched. One month postoperatively, the patient reported that the eye was okay but complained of blurry vision and problems driving. Approximately two months postoperatively, she reported that vision in the right eye was still blurry. At the three month postoperative examination, the patient complained of soreness in the right eye not helped by artificial tears; the insured diagnosed a tear film insufficiency. The patient was then seen by the insured six times during postoperative months four and five. At the first of these examinations, the patient complained that the right eye felt worse and she could not sleep due to severe pain. The insured diagnosed episcleritis. At the next examination, the insured questioned the etiology of the patient's severe pain and considered a secondary inflammation for which the patient was advised to continue taking Cosopt. Seven days later the patient reported feeling much better. Two weeks later the patient again reported feeling much better during an examination with the insured. Nodular scleritis was diagnosed. The patient did not show up for her next scheduled examination but at her last visit with the insured she complained that the right eye pain was gradually getting worse. The patient then self-referred to another ophthalmologist, who diagnosed scleritis due to a Mitomycin-C sponge left in the right eye during the insured's surgery. The second ophthalmologist removed the sponge from the patient's right eye and also had to perform an additional graft surgery due to sclera that was thinned by the Mitomycin.

Analysis

The ophthalmologist who the patient self-referred to was of the opinion that the foreign body was the cause of the patient's problems. OMIC was able to retain an expert who opined that there was no evidence that what this treating ophthalmologist found was a sponge since a sponge left in the eye would have caused corneal melting. This expert believed that what was removed was inflammatory debris or human granuloma tissue. OMIC's defense counsel retained an ocular pathologist to examine three specimens that the second ophthalmologist took from the patient's eye during the subsequent surgery: specimen A was white tissue, specimen B was sclera, and specimen C was conjunctiva. Unfortunately, the ocular pathologist reported that specimen A was not "native to the eye" and was likely a retained piece of sponge used in the surgery by our insured. Since our expert confirmed that the object in question was indeed a piece of sponge, the decision was made to settle the case. Fortunately, the patient did not lose any visual acuity as a result of the retained foreign body and the matter was settled for $35,000.

Risk Management Principles

Accurately accounting for sponges throughout a surgical procedure should be a priority of the surgical team to minimize the risk of a retained sponge. OMIC Director Steven V. L. Brown, MD, suggests this may be accomplished by monitoring the number of sponges placed during surgery and standardizing the size of the sponges. Counting and timing of sponge placement should be noted by both the surgeon and surgical nurse to ensure that all surgical team members are aware of the number of sponges and duration of exposure. Additionally, labeling and laying out the sponges on a tray prior to surgery and then placing them back on the tray after removal will make it extremely obvious that all sponges have indeed been removed. Consider using an 8-0 vicryl suture or Micropatties (manufactured by Pearsalls in the UK) with a tail string in order to provide easy retrieval and visibility of the sponges. For further suggestions on how to reduce the risk of retained surgical instruments, please see the article "Recommended Practices for Sponge, Sharp, and Instrument Counts" in the 2009 issue of *Perioperative Standards and Recommended Practices*.

Risk Management Hotline

"Standing Order" Medications

By Anne M. Menke, RN, PhD
OMIC Risk Manager

Most surgeons develop preferences for instruments, sutures, viscoelastics, and medications. To facilitate efficient preparation and turnover in operating rooms, they inform the hospitals and ambulatory surgery centers where they have privileges of what they would like to have available for each type of surgery. OMIC claims experience shows that certain aspects of these standing orders, especially medications, need to be made part of the surgical briefing. Medication errors are among the most frequent types of mistakes, and three types of medications top the charts: antibiotics, steroids, and anticoagulants. Unfamiliarity and interruption in the preparation process, along with failure to label drugs and verify them when handing them to another provider to administer, all increase the likelihood of error.

Q My antibiotic standing order is not difficult to prepare. Do I really need to discuss it?

A It would be prudent. In one OMIC case, the standing order was for cefazolin (Ancef) IV. The ophthalmologist assumed it had been prepared as ordered, so when the certified registered nurse anesthetist (CRNA) asked him if he wanted her to "give this," he agreed without any safety check. The patient developed respiratory distress immediately after administration of what turned out to be polymixin sulfate IV, a medication that was not on his order, should not be given intravenously, and causes respiratory paralysis from neuromuscular blockage. The reversal agent given to counteract the neurotoxin was contraindicated with polymixin, and potentiated its action; the patient needed intubation and two days in the hospital to recover. In another case, the standing order was for gentamycin to be diluted in 500 cc basic saline solution. Two patients whose procedures were back-to-back presented in the office with signs of aminoglycoside toxicity of the retina the day following surgery. The investigation showed that the nurse had erroneously prepared a much higher concentration of the drug. Both patients ended up NLP. In all three cases, the ensuing lawsuits named the hospitals, nurses, anesthesia providers, and ophthalmologists as defendants.

Q Why am I as the surgeon held responsible for the errors of nurses and anesthesia providers?

A Diligent plaintiff attorneys initially name all possible defendants, though surgeons may at times be dismissed if no act or omission on their part contributed to the adverse outcome. In the above-mentioned cases, defense experts sympathized with the surgeons' reliance on the correct interpretation and execution of their standing orders, but felt that the physicians could have done more to protect the patient. Patient safety experts would say that they helped sustain a climate where errors not only went undetected but were likely to happen. Whether the surgeon is ultimately held liable depends upon the facts of the case, the venue, and the willingness of other parties to settle cases. The surgeon in the first case did not clarify the CRNA's question. Nonetheless, since his standing order did not contain polymixin, the case against him was dismissed, while the CRNA and hospital settled. The second surgeon was criticized for ordering a medication with known toxic side effects when safer medications were available (OMIC made a modest contribution to a settlement on his behalf). As surgeon, you can actively create safety twice: include a brief discussion of intraoperative medications you or the nurses will administer as part of the time out ["Let's review the antibiotic: cephazolin (Ancef) 1 gram IV."] and confirm the drug label one last time as it is handed to you if you will be administering it.

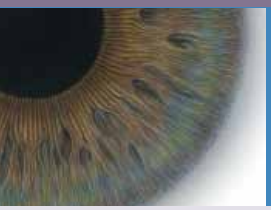
Q What steps can the surgical team take to increase the safety profile of higher-risk medications?

A Medication safety protocols can reduce many possible sources of errors by addressing known risk issues and building in redundancy and verification. Surgeons should review standing medication orders on a periodic basis to confirm choices. Ask for new, dated cards whenever you change orders. Instruct the hospital or ASC to remove former orders from patient care areas and store them where they can be accessed only by administrators. Include precise preparation steps, and appropriate warnings, in the standing order to ensure proper route and concentration. Ensure that the facility provides nurses with a quiet area to review orders and prepare drugs with access to medical records and without interruption. Require that every medication and fluid needed for the specific procedure be labeled with drug, dosage, dilution, route, etc., and consider having medication vials available in the OR to confirm drug choice. Insist that nurses who prepare medications regularly demonstrate adequate medication knowledge and competency in preparation. Create a culture of safety where everyone feels comfortable asking for assistance with unfamiliar medications or processes and questioning orders they do not understand.

OMIC
OPHTHALMIC MUTUAL INSURANCE COMPANY
(A Risk Retention Group)

655 Beach Street
San Francisco, CA
94109-1336

PO Box 880610
San Francisco, CA
94188-0610



Calendar of Events

OMIC will continue its popular risk management courses in 2012. Upon completion of an OMIC online course, CD/DVD, or live seminar, OMIC insureds receive one risk management premium discount per premium year to be applied upon renewal. For most programs, a 5% risk management discount is available; however, insureds who are members of a cooperative venture society (indicated by an asterisk) may earn an *additional discount* by participating in an approved OMIC risk management activity. Courses are listed here and on the OMIC web site, **www.omic.com**.

Contact Linda Nakamura at (800) 562-6642, ext. 652, or lnakamura@omic.com for questions about OMIC's risk management seminars, CD/DVD recordings, or computer-based courses.

January

16 *OMIC Closed Claims*
Northern Virginia Academy of Ophthalmology
Maggiano's Little Italy, Tyson's Corner, McLean, VA; 6–9 pm. Register with Linda Nakamura at (800) 562-6642, ext. 652.

17 *OMIC Closed Claims*
Washington DC Metropolitan Ophthalmological Society
Acadiana Restaurant, Washington DC; 6–9 pm. Register with Linda Nakamura at (800) 562-6642, ext. 652.

February

11 *Malpractice Case Studies*
Ohio Ophthalmological Society*
Hilton at Easton, Columbus, OH; 2:40–3:40 pm. Register with OOS at (614) 527–6799 or tbaker@ohioeye.org.

18 *Abandonment of Patients*
Georgia Society of Ophthalmology (GSO)*
Westin Buckhead, Atlanta, GA; time TBA. Register with the GSO at http://www.ga-eyemds.org/.

24 *Malpractice Liability and EHR*
New England Ophthalmological Society (NEOS)*
Back Bay Event Center, Boston, MA; time TBA. Register with NEOS at http://www.neos-eyes.org.

March

10 *Malpractice Case Studies*
Illinois Assn of Ophthalmology*
Stephens Conference Center, Rosemont, IL; 11 am–noon. Register with IAO at (847) 680-1666 or http://www.ILeyeMD.org.

27 *Top Ten Indemnity Payments for Pediatric Ophthalmology and Strabismus*
American Assn for Pediatric Ophthalmology & Strabismus*
Grand Hyatt, San Antonio, TX; 2–3:15 pm. Register with AAPOS at (415) 561-8505 or http://www.aapos.org/meeting/annual_meeting_folder/registration.

April

20-24 *Professional Liability Risks Associated with Premium IOL Implants—Effective Management of Presbyopia-Correcting Patients*
American Society of Cataract & Refractive Surgery (ASCRS)
McCormick Place West Convention Center, Chicago, IL; date and time TBA. Register with ASCRS at www.ascrs.org.