ANESTHESIA & the LAW
A Risk Management Newsletter
AUGUST 2020 – ISSUE 49
PPM

Effective Preoperative Evaluation and Communication Critical to Prevent Aspiration

In This Issue

Inadequate preoperative evaluation and ineffective communication between anesthesia professionals and other healthcare team members are common allegations in litigation filed against PPM's insureds. In this issue, we examine three case studies and underscore the serious consequences to patient safety resulting from ineffective preanesthetic medical evaluations and communication to prevent aspiration. We also offer risk management analysis and patient safety strategies to identify patients who may be at increased risk of aspiration. Finally, we revisit the potential liability exposures for policyholders participating in student training programs and provide risk mitigation guidance and strategies.

Case Study One

A 49-year-old female underwent laparoscopy for a suspected adnexal abscess with general anesthesia. Four days prior to the surgery in question, the patient had undergone a diagnostic hysteroscopy, and soon thereafter developed signs consistent with infection.

Prior to the hysteroscopy, the patient underwent an evaluation and examination, including a CT scan of her abdomen. The evaluation and examination were highly suggestive, if not diagnostic, of a developing ileus with small bowel obstruction. When this information was passed on to the patient's admitting OB/GYN physician, she took no steps to address the ileus. In fact, one of the nursing notes reflected that the CT scan results noted by the radiologist indicating a possible ileus were telephoned to the OB/GYN. The nursing notes further indicated, "no new orders were given."

On the day of the laparoscopy, the PPM insured anesthesiologist met the patient for the first time. The patient's only complaint provided to the anesthesiologist was pain. Given that the pre-op diagnosis was likely abdominal or pelvic abscess, the anesthesiologist was not surprised to learn of the patient's complaint of pain. At no time did the admitting OB/GYN or the nursing staff inform the anesthesiologist of the CT scan results and a possible ileus. Additionally, the patient's abdomen was covered preoperatively in such a way that any distension was not visible to the anesthesiologist.

The anesthesiologist performed a standard induction of general anesthesia during which the patient aspirated voluminous amounts of black emesis. She suctioned the patient's airway and the procedure was completed without any further complication.

Postoperatively, the patient developed signs and symptoms consistent with sepsis and possible pulmonary edema. She was transferred to another hospital where she was treated for sepsis for two weeks before being discharged home.

The patient sued the anesthesiologist and her anesthesia practice group. The plaintiff alleged the anesthesiologist was negligent in failing to communicate with the admitting OB/GYN and nursing staff to determine the CT scan results and suspected ileus or obstruction. She also alleged the anesthesiologist failed to review her medical records and conduct an examination of her abdomen preoperatively. She alleged further that the anesthesiologist failed to protect her airway to reduce or eliminate the potential for aspiration.

Plaintiff's anesthesiologist expert, Kevin Becker, MD, Newport Beach, California, testified that the anesthesiologist breached the standard of care by failing to discover the patient's likely ileus as part of her preanesthesia evaluation. Plaintiff's expert's opinions were based, in part, on the disclosed expected testimony of the OB/GYN, specifically that, "she told the anesthesiologist about the suspected ileus." However, during the OB/GYN's deposition, she could not recall if she specifically told the anesthesiologist that the patient had a distended abdomen or an ileus. She recalled telling the anesthesiologist that the patient had nausea, vomiting, and worsening pain and described her general hospital course for the past four days.

> ***… she could not recall if she specifically told the anesthesiologist that the patient had a distended abdomen or an ileus.***

According to the plaintiff's expert, the anesthesiologist had received sufficient information from the OB/GYN to alert her to the strong possibility and likelihood that the patient had stomach contents that could lead to aspiration. He testified that the anesthesiologist was under an obligation to review key medical records, laboratory test results and the CT scan of the abdomen. Had the anesthesiologist done so, she would have discovered clear indications that the patient likely had an ileus. He was also critical of the anesthesiologist for failing to have employed rapid sequence induction with cricoid pressure to prevent aspiration.

The defense expert, who was board-certified in OB/GYN and anesthesia, concluded that the OB/GYN likely perforated the patient during the hysteroscopy. He opined that the OB/GYN should have taken the patient back to the OR when she did not improve after 24 hours. He was critical of the OB/GYN for not ordering a nasogastric (NG) tube to decompress the patient's bowel once the CT scan results indicated a likely ileus. He was also critical of the lack of communication between the nursing staff and OB/GYN with the anesthesiologist regarding the patient's ongoing nausea and vomiting, distended abdomen, and CT scan results. Finally, he believed that even if the anesthesiologist would have performed a rapid sequence induction with cricoid pressure, there was no guarantee the patient would not have aspirated.

The patient's claimed medical expenses were more than $750,000 and her lost wages were approximately $30,000. This lawsuit was filed in a jurisdiction without damage caps and defense counsel's evaluation of a potential jury verdict range was between $1,000,000 and $1,500,000.

The parties participated in mediation prior to trial. With our PPM insured anesthesiologist's consent, this case was settled for $350,000.

Case Study Two

A 54-year-old female patient presented for an elective esophagogastroduodenoscopy (EGD) with monitored anesthesia care (MAC) with IV sedation administered by a PPM insured anesthesiologist. Her preoperative symptoms were dyspepsia, epigastric pain, and heartburn. She tolerated the procedure well and had postoperative diagnoses of gastritis and esophagitis. The endoscopist also noted, "I suspect there is a component of decreased gastric motility." The patient was prescribed Percocet and discharged home.

The patient was readmitted to the hospital five days after the EGD procedure with abdominal pain, vomiting and dehydration. CT scan of the abdomen showed pancreatitis and choledocholithiasis. Two days later the patient presented for an endoscopic retrograde cholangiopancreatography (ERCP) with MAC with IV sedation. The gastroenterologist found the stomach enlarged with distal duodenum stenosis. The ERCP was not attempted once the proceduralist was unable to pass the scope into the distal duodenum. Diagnosis was gastritis and distal esophagitis and the patient was prescribed Percocet.

The patient was transferred to another hospital the following day for further evaluation. The admission records noted a history of emesis for over one month with elevated liver enzymes. Over the following nine days, another ERCP was attempted that showed a duodenal stricture and the scope could not be passed. The proceduralist was able to dilate the descending duodenum with a balloon. The patient underwent another ERCP three days later that allowed the scope to be passed through the dilated area, but the common bile duct was unable to be cannulated. General anesthesia with endotracheal intubation was administered for each of these procedures. Magnetic resonance cholangiopancreatography (MRCP) showed 7 mm and 5 mm common bile duct stones with dilated common bile duct and intrahepatic ducts, and pancreatitis. The patient was discharged home with continuation of Percocet.

Five days post-discharge, the patient presented to the emergency room (ER) with persistent vomiting, diarrhea, and severe pain. Abdominal exam showed minimal distention with decreased bowel sounds. She began to tolerate oral intake of fluids and it was determined that she was not a surgical candidate based on her presentation to the ER. She was scheduled for percutaneous hepatic cholangiogram and discharged home.

The patient presented to the hospital where she had undergone the first EGD for percutaneous cholangiography (PTC) and cannulation to remove the stones. During the preanesthesia evaluation, the PPM insured anesthesiologist noted the patient was NPO. The patient denied any reflux, heartburn, nausea, or vomiting. The patient did not disclose her persistent history of nausea and vomiting, abdominal pain, Percocet use, recent endoscopic procedures, diagnosis of duodenal obstruction, or that she vomited that morning. The PPM insured anesthesiologist provided monitored anesthesia care (MAC) with IV sedation. During the procedure, the patient aspirated approximately 300 cc of bile and her vitals dropped precipitously. The patient was suctioned and intubated. She was transferred to the ICU and placed on a ventilator. Chest x-rays showed bilateral pulmonary infiltrates. The patient's condition rapidly deteriorated in the ICU. Diagnosis was aspiration, acute respiratory distress syndrome (ARDS), sepsis, shock, and metabolic and respiratory acidosis. Ventilation with 100% oxygen and positive end-expiratory pressure (PEEP) failed to provide adequate oxygenation. The patient was transferred to a nearby shock treatment center where she subsequently expired.

The patient did not disclose her persistent history of nausea and vomiting, abdominal pain, Percocet use, recent endoscopic procedures, diagnosis of duodenal obstruction, or that she vomited that morning.

The patient's husband sued the PPM insured anesthesiologist, his anesthesia practice group, and the hospital. The allegations against the anesthesiologist included failing to review the patient's recent medical records from her endoscopic procedures and completing a thorough preanesthesia evaluation. It was also alleged the anesthesiologist was negligent for failing to intubate the patient to protect her airway considering her recent medical records and symptoms. The allegations against the hospital were vicarious liability claims based on the alleged negligence of the anesthesiologist.

The plaintiff's anesthesiology expert, Ronald E. Burt, MD, Farmington, Connecticut, testified that the anesthesiologist breached the standard of care in performing the patient's preoperative evaluation. He testified the standard of care required the anesthesiologist to review the patient's medical records from the previous endoscopic procedures, which would have revealed she had a history of gastritis and esophagitis, persistent nausea and vomiting, prolonged narcotic use, and duodenal obstruction. He testified further that because the anesthesiologist failed to adequately assess the patient's significant risk of aspiration, he breached the standard of care by choosing MAC with IV sedation over general anesthesia with an endotracheal tube.

The defense anesthesiology expert testified that, in hindsight and given the patient's medical history, she should have been intubated for the PTC procedure. However, unfortunately, the anesthesiologist had not been informed of this history by either the patient or her treating gastroenterologist. The expert testified further that had the anesthesiologist been provided with this history, he would have likely intubated the patient for the PTC procedure. He questioned why the patient's medical history was not shared with the anesthesiologist by her treating gastroenterologist. He also noted the prior endoscopic procedures were performed at a different hospital and the anesthesiologist did not have access to those medical records. He opined further that the treating gastroenterologist had an obligation to inform the anesthesiologist regarding the patient's medical history, which placed the patient at an increased risk of aspiration. Given the history obtained from the patient and the lack of communication and information from the treating gastroenterologist, the defense expert concluded the anesthesiologist met the standard of care in his assessment that patient was undergoing a routine procedure that is typically performed with MAC with IV sedation.

While this lawsuit was filed in a state with non-economic damage caps, the plaintiff was entitled to recover economic damages for medical expenses, loss of services and lost earnings. The total claimed damages were over $2 million.

The parties participated in mediation prior to trial. With our PPM insured anesthesiologist's and his anesthesia practice group's consent, this case was settled for $1,050,000. The hospital was dismissed with no contribution toward settlement.

Risk Management Analysis and Considerations

Communication failures are estimated to have contributed to the injury or severity of the injury in up to 43% of anesthesia malpractice claims, according to a recent study.[1] In each of the preceding case studies, the lack of or ineffective communication between the anesthesiologists and other healthcare providers resulted in inadequate preoperative patient evaluation, risk assessment, preparation, and significant patient injury from aspiration.

In both cases, the patients' medical records, diagnostic test results and other providers with pertinent medical information were available or could have been obtained. And while there were criticisms in both cases against other treating physicians and nurses, the allegations ultimately focused on the PPM insureds' failure to effectively communicate to obtain appropriate medical histories and information. Nearly all the experts agreed that had the anesthesiologists obtained that information, they likely would have chosen an anesthetic plan for general anesthesia with a secured airway to minimize risk of aspiration.

With the continual growth of outpatient and same-day surgery and patients with significant co-morbidities presenting for increasingly complex surgical procedures, PPM's insureds are often seeing patients for the first time immediately prior to surgery. This model often creates substantial challenges for appropriate preoperative assessment and risk reduction due to the lack of sufficient time to review the patient's medical record and communicate with other healthcare providers who may have important information regarding the patient's medical condition.[2] The practice of anesthesia creates unique challenges that require clear, succinct, respectful communication and is essential to working in a time-compressed environment.[3]

The ASA Basic Standards for Preanesthesia Care apply to all patients (unless exceptional circumstances exist) and the anesthesiologist is responsible for:

1. Reviewing the available medical record.
2. Interviewing and performing a focused examination of the patient to:
    a. Discuss the medical history, including previous anesthetic experiences and medical therapy.
    b. Assess those aspects of the patient's physical condition that might affect decisions regarding perioperative risk and management.
3. Ordering and reviewing pertinent available tests and consultations as necessary for the delivery of anesthesia care.
4. Ordering appropriate preoperative medications.
5. Ensuring that consent has been obtained for the anesthesia care.
6. Documenting in the chart that the above has been performed.[4]

While hospitals, facilities, and anesthesia professionals address preoperative assessment and preanesthesia evaluations differently, PPM recommends considering the following practices to identify patients with co-morbidities or medical conditions that placed them at higher risk of aspiration:

- Telephone or telehealth screening of patients.
- Utilizing physician assistants, nurses, or nurse practitioners to evaluate patients prior to the day of surgery.
- Utilizing a preoperative assessment clinic staffed with at least one anesthesia professional.
- Carefully reviewing the patient's medical chart.
- Actively communicating with other healthcare team members regarding the patient's risk assessment and risk reduction – e.g., NPO status, patient's recent ability to tolerate eating and drinking, NG tube placement, bowel obstruction, lab results or diagnostic studies. Documenting communications in the medical record.
- Thorough informed consent discussion asking the patient or surrogate open-ended questions regarding their medical conditions and documenting the discussion in the medical record.

Case Study Three

A 20-year-old female, 5'4", 38.5 kg, with a medical history significant for kidney removal, duodenal obstruction and persistent vomiting for 4 days presented for Roux-en-Y gastric bypass and appendectomy. A nasogastric (NG) tube had been placed on the day of the procedure, but the tube became dislodged several hours preoperatively. The surgeon was aware the NG tube had come out; however, that information was never conveyed to anesthesia.

The PPM insured anesthesia group had a contract with the county emergency medical services program for teaching EMT students intubation. An EMT student being supervised by a PPM insured anesthesiologist and a certified registered nurse anesthetist (CRNA) attempted a standard intubation. The EMT student intubated the patient's esophagus on his first attempt. The esophageal intubation was immediately recognized and the CRNA successfully intubated on the second attempt. The patient aspirated a "significant amount" of gastric contents that was suctioned. An NG tube was placed and approximately 600 cc of gastric contents were suctioned from the patient's stomach.

The surgery was completed without further complication. However, a chest x-ray showed an aspiration pneumonia, which required prolonged intubation and ventilation. On the seventh post-operative day, the patient had a period of ventricular tachycardia and was thought to be experiencing an acute myocardial infarction. The patient was transferred to another facility where she underwent urgent cardiac catheterization. The patient had a complicated medical course after the aspiration requiring various hospital admissions for pneumonia, aspiration, strokes, and complications from a tracheostomy. The patient was subsequently diagnosed with significant brain damage and was unable to perform activities of daily living.

The patient's parents sued the hospital, the PPM insured supervising anesthesiologist and anesthesia practice group. The plaintiff's allegations included failing to perform adequate diagnostic procedures and tests to determine the nature and severity of the patient's medical status and conditions, and failing to employ appropriate treatments and procedures to correct those conditions preoperatively. The plaintiffs also alleged the defendants negligently permitted an EMT student to attempt intubation without the patient's consent. They further alleged the defendants failed to exercise reasonable care in the treatment and management for the complications associated with aspiration causing permanent and irreversible brain damage and related injuries.

The plaintiff's anesthesiology expert, Corey Burchman, MD from York, Pennsylvania, testified the supervising anesthesiologist violated the standard of care by allowing an EMT student to attempt intubation on a patient with a significant risk of aspiration due to her bowel obstruction. He criticized the failure to perform a rapid sequence induction. He was also critical of the intervention and response to the observed aspiration.

The defense anesthesiology expert opined there was no deviation from the standard of care by performing an esophageal intubation that was recognized immediately with the tube removed and reintubated. He concluded that aspiration is one of the recognized risks associated with intubation and not a breach of the standard of care. He was prepared to testify it was not below the standard of care to allow an EMT student to perform the intubation under supervision. However, he conceded he would not have allowed an EMT student to attempt intubation on this patient due to her increased risk for aspiration.

The plaintiffs' economic expert estimated the lost earnings at $1.6 million. He estimated future care costs for in-home care at $16 million to $21 million and in a care facility at $29 million to $31 million.

With the consent of PPM's insured anesthesiologist and his anesthesia practice group, PPM participated in a pre-trial settlement conference with the hospital and plaintiffs. PPM contributed $2,000,000 to a $7,000,000 global settlement with the hospital.

Risk Management Analysis

Many PPM policyholders voluntarily participate in student training programs to provide training and supervision for intubation proficiency and airway maintenance for EMTs, paramedics, medical residents or students, student nurse anesthetists, and respiratory therapists. PPM supports our policyholders' altruism and commitment to benefit their local communities by providing this valuable medical training and service. However, as the case study above highlights, there may be significant liability exposure for our insureds supervising these students and trainees.

PPM has defended several other cases involving student training programs and has other litigation pending. PPM's insureds have frequently reported they were not aware a student would be involved in a case until they appeared in the OR wanting to intubate a patient. In several of these cases, our insureds indicated they had little to no information regarding the student's education, training, skills, or experience.

In PPM's experience defending litigation involving student training supervision, the students may not be named as defendants as was the case in the preceding case study, despite the fact that the county had $1 million in professional liability insurance coverage for the student. Hospitals and student sponsoring entities such as community colleges, counties, and municipalities typically deny any liability and focus their criticisms against the supervising anesthesiologist.

An adequate informed consent process and documentation that a student may be involved in a patient's care and treatment is extremely important to defend our insureds in the event of an adverse outcome involving a student. The student's sponsoring school, program or entity should also provide our insureds and PPM with evidence of sufficient professional liability insurance coverage for the student's participation in the training program.

PPM's in-house attorneys and claims professionals are available to review student training program agreements, certificates of insurance, and we can provide sample informed consent language to include in the anesthesia consent form.

Risk Management Strategies for Participating in Student Training Programs

- Carefully select appropriate patients to be intubated by students (e.g., patients with no significant co-morbidities, easy airways and class 1 or 2 on Mallampati classification, edentulous).
- Verbal and written anesthesia informed consent process must specifically disclose that students may be involved in the patient's care.
- Patients must have the opportunity to refuse to allow students to participate in their care.
- Ensure students have been carefully screened and have appropriate level of education, training, experience, and skills to participate in a training program.

References:

1. Posner K. Bungled Perioperative Communications an Outsized Source of Liability. Anesthesiology News April 24, 2018. Accessed at: https://www.anesthesiologynews.com/Policy-Management/Article/04-18/Bungled-Perioperative-Communications-An-Outsized-Source-of-Liability/48324
2. Morell RC. Patient Safety and Production Pressure: Pre-Op Assessment. APSF Newsletter Spring 2001; Vol 16; No. 1. Accessed at: https://www.apsf.org/article/patient-safety-and-production-pressure-pre-op-assessment/.
3. Kopp VJ. Shafer A. Anesthesiologists and Perioperative Communication. Anesthesiology August 2000. Accessed at: https://anesthesiology.pubs.asahq.org/article.aspx?articleid=1945547.
4. ASA Basic Standards of Preanesthesia Care. Last Amended: October 28, 2015. Accessed at: https://www.asahq.org/standards-and-guidelines/basic-standards-for-preanesthesia-care.

Correction to Issue 48. In the article "Cardiopulmonary Sentinel Events During ERCP: Oversedation or Air Embolism?" the amount of fentanyl was incorrect in the Case Study. The last sentence of the third paragraph in the Case Study should have read: The CRNA administered 2 mg Versed, 100 mcg fentanyl, 30 mg lidocaine, 0.2 mg Robinul and 15 mg propofol. All versions after the initial mailing have been corrected.

PREFERRED PHYSICIANS MEDICAL RISK RETENTION GROUP
11880 College Boulevard, Suite 300
Overland Park, KS 66210-2141

T 913.262.2585 • 800.562.5589
F 913.262.3633

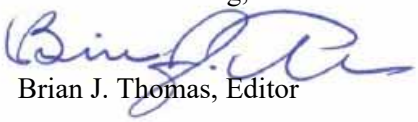
NEWSLETTER EDITOR
Brian J. Thomas, JD
Vice President-Risk Management

ANESTHESIA & the LAW
A Risk Management Newsletter
AUGUST 2020 – ISSUE 49

In This Issue

- Effective Preoperative Evaluation and Communication Critical to Prevent Aspiration
  - Case Studies
  - Risk Management Analyses and Strategies

Thanks for reading,



Brian J. Thomas, Editor