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Failures in documentation may contribute to the fourth most common factor, inadequate patient monitoring (12 percent). This was seen in cases where there were drops in vital signs or end-tidal CO₂ values with no response from the anesthesiologist for an unreasonable amount of time. There were also delays in response to clinical alarms, which were either disregarded, turned off, or not heard.

The fifth most common factor that contributed to patient injury was patient factors (10 percent). Most of these factors were related to the patient anatomy, causing difficult or delayed intubations and difficulty placing regional anesthetics. Other patient factors were comorbidities, such as obesity, cardiovascular disease, diabetes, chronic pulmonary disease, smoking, hypertension, and sleep apnea.

A common theme in this study was inadequate preparation for complications. For example, the appropriate equipment was missing when patient anatomy made it difficult to intubate and delays caused an anoxic event. In a few of these cases, rescue was delayed because equipment for emergency tracheostomies or cricothyrotomies was not readily available. Responses were delayed when blood and blood products had not been ordered for patients with clotting disorders or impaired clotting mechanisms due to medication.

Regional anesthesia has its own set of risks. Infrequent problems identified in these claims include incorrect placement of anesthetic agents, incorrect agent infusion, and incorrect doses. Patients suffered reactions to anesthetic agents, experienced nerve damage from swelling or tourniquet pressure, and experienced bleeding or pneumothorax from punctures due to incorrect placement of needles.

Exubtation resulted in harm if too much medication was given in close proximity to the time of extubation. Some of these patients suffered anoxic brain damage when they slipped into a coma due to sleep apnea, overdose of opioids, or drug reactions.

There were also problems with loss of the airway if extubations were performed too soon after surgery. Some patients had anatomic structures, such as thick necks, that had made the initial intubation difficult. Reintubation was even more challenging in a crisis or in patients who had swelling or bleeding around the airway.

Patients who had obstructive sleep apnea were at increased risk. Some patients who had been diagnosed with sleep apnea were not monitored in the hours following surgery or were discharged home. Some slipped into a coma and suffered brain damage or death. Often, these patients were given opioids for pain control, which increased risks when the patients were not monitored. Patients who had not been screened for sleep apnea and expired unexpectedly may have had undiagnosed sleep apnea. When no other cause of death was found, sleep apnea was presumed to be a likely cause.

The results of this study reveal risks to patients and exposures for anesthesiologists and CRNAs. The goal of this study is to alert anesthesia professionals to risks that can be addressed to help prevent patient harm.

By Darrell Ranum, JD, CPHRM, Vice President, Department of Patient Safety
By David B. Troxel, MD, Medical Director, Board of Governors

As the nation’s largest physician-owned medical malpractice insurer, The Doctors Company has an unparalleled understanding of liability claims against anesthesia professionals. Our data-driven approach enables us to anticipate emerging trends and deliver innovative patient safety tools to help our members reduce risk. And when a member’s reputation and livelihood are attacked, insights gained from these studies help us provide the most aggressive defense in the industry.

To learn more about events that place anesthesia professionals at risk, we reviewed more than 600 anesthesia claims that closed from 2007–2012. The results presented here reveal underlying vulnerabilities in the practice of anesthesiaology.
The top three allegations account for 68 percent of claims. Other allegations included failure to monitor patient’s physiological status, incorrect patient positioning, and improper choice of anesthesia.

The second most common allegation was improper performance of anesthesia procedures (25 percent). The five most common procedures associated with this allegation were injection of anesthesia into the spinal canal (37 percent), intubation of the respiratory tract (35 percent), injection of anesthesia into a peripheral nerve (20 percent), injection of anesthesia into a sympathetic nerve (3 percent), and nasopharyngeal intubation (2 percent).

Physician reviewers agreed that technical performance was a major factor contributing to patient harm. However, they viewed these technical issues as being mostly known complications (80 percent)—complications the patient was aware of before the procedure—and not due to negligence. Only 20 percent of the cases in this category (9 percent of all anesthesia cases) were attributed to substandard performance of an anesthesia procedure.

The third most common allegation was improper management of the patient under anesthesia, related to decisions made by anesthesia professionals while patients were under anesthesia (19 percent). Examples include inadequate monitoring of vital signs, delayed response to obstructed ventilation or esophageal intubation, delayed response to deteriorating vital signs, and inadequate response to hemorrhage and respiratory or cardiac arrests.

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The second most common allegation was tooth damage related to intubation or extubation (24 percent). In these cases, patients alleged damage to teeth, crowns, implants, and bridges. Many of these cases involved difficult intubations or poor condition of the teeth, but these cases were difficult to defend if the documentation failed to reference the difficult intubation or the condition of the teeth.

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