# Risk management opportunities for Anesthesiology

### Consideration of resources

Ambulatory surgery centers are expanding their practice to include more high-risk patients that might otherwise have been treated in a hospital setting. Preoperative evaluation to determine patient risk is crucial for patient safety. Consider what resources a surgery center has available to manage complex patients and transfer to an inpatient setting if more appropriate for the procedure.

#### 2. Adequate pre-op assessments

Do anesthesiologists have opportunities to adequately assess patients in advance of surgery? High-risk patients should be evaluated in-person. Only low-risk surgeries and low risk medical patients should be evaluated by phone/telehealth. Pre-op assessments are important for anesthesiologists to prepare for complications that may result from comorbidities (bleeding, respiratory complications, and cardiac conditions).

# **3.** Manage comorbidities with referrals

Consider pre-op referrals to specialists to manage comorbidities. A failure to monitor patient physiological status (other then medication responses) was the second highest contributing factor of all anesthesia claims from 2008-2023 (Candello).

# 4. Appropriate glycemic control

Regardless of medical specialty, diabetes mellitus is known to be associated with increased hospital morbidity and hospital stay.<sup>75,77</sup> Multiple studies have shown that diabetic patients undergoing major surgery are at increased risk of mortality and morbidity.<sup>78,80</sup> Appropriate glycemic control before, during and after anesthesia decreases perioperative infection, improves wound healing and decreases length-of-stay. Anesthesiologists should be acutely aware of glycemic variability and aim to limit hyperglycemia.

Notes: **75**. Aldam P, Levy N, Hall GM. Perioperative management of diabetic patients: new controversies. *Br J Anaesth*. 2014;113(6):906–909, **77**. Sampson MJ, Dozio N, Ferguson B, Dhatariya K. Total and excess bed occupancy by age, specialty and insulin use for nearly one million diabetes patients discharged from all English acute hospitals. *Diabetes Res Clin pract*. 2007;77(1):92–98. **78**. Lee TH, Marcantonio ER, Mangione CM, et al. Derivation and prospective validation of a simple index for prediction of cardiac risk of major noncardiac surgery. *Circulation*. 1999;100(10):1043–1049. **80**. Kon S, Thompson R, Dellinger P, Yanez D, Farrohki E, Flum D. Importance of perioperative glycemic control in general surgery: a report from the Surgical Care and Outcomes Assessment Program. *Ann Surg*. 2013;257(1):8–14.

## **Anesthesiology Case Study**

40-year-old female patient–primary history included sleep apnea, morbid obesity, hypertension, work-related injury right shoulder. Patient went to ambulatory surgery center for right shoulder repair per orthopedic surgeon. Consented for surgery and anesthesia, but not specifically for interscalene nerve block. Anesthesiologist was challenged by patient's anatomy in identifying landmarks on shoulder, used nerve stimulator to isolate correct nerve, placed needle, then had RN administer nerve block in preparation for shoulder repair. RN reported some resistance, but the Anesthesiologist felt no reason not to continue, as he was sure he was in the right place, no changes in vital signs. Seconds later the patient suffered "total spinal," respiratory arrest. Transferred to operating room, intubated, ventilated, monitored until able to breath independently. Shoulder surgery aborted, rescheduled for inpatient hospital operation due to risk factors. The patient suffered permanent right shoulder injury, and weakness in right hand. Diagnosed with brachial plexus injury not present pre-operatively. **Indemnity paid \$120K.** 

#### **Contributing risk factors:**

- 1. Improper performance anesthesia procedure resulted in temporary respiratory arrest.
- **2.** Improper choice of practice setting.
- 3. Misidentification of anatomical structure.
- 4. Inadequate informed consent.





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