**Liability Outside the Operating Room: Comparison of NACOR Cases With Closed Malpractice Claims for Gastroenterology, Cardiology and Radiology**

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**Introduction**

With precipitous growth in the complexity and volume of surgical procedures performed outside the operating room (OOR) there is an increasing need to understand anesthesia-related morbidity and legal liability in these cases. Our previous closed claims review of cases performed OOR from 1990-2006 showed a 2-fold higher proportion of deaths arising from OOR anesthetics compared to care provided in the general operating room (GOR) setting (1). In contrast, recent data from the National Anesthesia Clinical Outcomes Registry (NACOR) database did not reveal a greater incidence of anesthetic complications during OOR procedures (2). In this study we used the same two national anesthesia databases to compare the extent of malpractice claims associated with OOR practice to claims encountered in GOR settings in a more contemporary sample.

**Methods**

We examined the NACOR database of 12,252,846 cases from 205 anesthesia practices from 2010-2013 (2). Anesthesia malpractice claims for events occurring in 2000-2012 were derived from the Anesthesia Closed Claims Project database of 10,357 claims. Inclusion criteria were cases or claims for surgical anesthesia care. Obstetric procedures were not included. OOR locations were limited to gastroenterology (GE), cardiology, or radiology. OOR locations were identified by CPT codes in NACOR cases (2) and by locations as recorded in files for claims (1). Characteristics of OOR malpractice claims were compared to NACOR OOR cases. OOR malpractice claims were compared to GOR malpractice claims by Fisher’s exact test for proportions and Mann Whitney U test for inflation-adjusted payment amount.

**Results**

GE, cardiology and radiology cases together comprised 19% of NACOR anesthesia cases but only 4% of anesthesia malpractice claims in the closed claims registry. GE was the most common OOR location in both malpractice claims (51%) and NACOR cases (81%). Patients in OOR claim were younger (41% < 50 yr) compared to NACOR cases (30% <50 yr), less healthy (34% ASA 1-2 vs. 60%) and more likely to have sedation vs. general anesthesia (69% sedation in claims vs. 38% sedation in NACOR cases). Mortality was 61% in the closed claims cases. Overall mortality in the NACOR sample of OOR cases was 0.02%.

When comparing OOR malpractice claims to malpractice claims arising from the GOR, respiratory events were more common in OOR locations (53% vs. 23%, p<0.001); inadequate ventilation or oxygenation occurred in one third (31%) of OOR claims. In 35% of OOR claims the injury was possibly, probably or definitely preventable by better monitoring compared to only 17% of GOR claims (p=0.001). Anesthesia care was more commonly assessed as substandard in OOR claims (66%) compared to claims from the GOR (44%, p=0.001). Payment was more common in OOR claims (72% vs 57%, p=0.014). When a payment was made, OOR claim payments were larger (median $554K vs. $285K, p=0.003).

**Conclusions**

OOR malpractice claims represented a smaller proportion of total claims than the proportion of OOR cases in NACOR. This may suggest lower anesthesia liability associated with locations OOR or alternatively result.
from the rapid recent increase in the number of these cases, not yet reflected in closed claims. In malpractice claims from OOR, mortality was higher, payments were more likely, and payments were larger than in GOR claims.

Most OOR anesthesia malpractice claims involved respiratory events during sedation and were assessed as possibly preventable by better monitoring.

References


Figure 1

Figure: GI, Cardiology, and Radiology Liability and Characteristics of Malpractice Claims in Non-OR Locations

NACOR Cases

Malpractice Claims

Characteristics of Malpractice Claims in Non-OR vs OR Locations

* \( p < 0.01 \)

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