INTRODUCTION

• The mainstay of quality assurance (QA) programs in anesthesia is the end-of-case self-report. It is well recognized that many adverse events that occur during cases are not reported and the extent of underreporting is difficult to estimate.

• Medications (meds) that are not used routinely, such as pressors, antihypertensive agents, antidotes and reversal agents may be used as "indicators" since their use provides a window into the true incidence of adverse events (AE) during anesthesia.

• In this report, we analyzed our QA database and EMR to compare the incidence of reported AE with the use of indicator meds. While the true incidence of adverse events is not knowable, analysis of indicator meds use might bridge the gap.

METHODS

• AE and indicator meds as documented in Epic Anesthesia (Epic Systems, Verona WI) are made available in a Qlikview (Qliktech, Radnor PA) anesthesia dashboard.

• From January 2013 to June 2015, all reported QA indicators and all indicator meds during this period were extracted into a spreadsheet (Excel, Microsoft, Bellevue WA).

• Some indicator meds were used either for prophylaxis (planned) or to manage an AE (unplanned). We therefore determined thresholds for each drug that would relate to an AE (yes or no) was added to the spreadsheet.

• Descriptive statistics were used to determine the rate an AE was reported correctly associated with classes of medications and individual meds.

RESULTS

• During the study period, 804 administrations of indicator meds were recorded (table-2).

• Multiple administrations occurred frequently for the same AE representing 619 unique cases. In 191 (31%) of unique cases, trigger med administrations were deemed planned, leaving 461 cases to analyze if an AE was documented.

• Reporting of individual drugs used and associating them with AE ranged from 0 to 100%.

• Opioid and benzodiazepine antidotes, and antiarrhythmic agents were recorded correctly only 50% of the time.

• Overall, 80% of AE were essentially not recorded. Only 20% of AE were deemed to have been documented correctly.

CONCLUSIONS

• With EMR, indicator meds administration can be used to identify unreported AE. We observed significant underreporting of adverse events during anesthesia.

• Combination of education and creative programming that directs the provider to report the use of drugs indicative of an AE would likely improve QA self report and provide more accurate incidence of AE during anesthesia.

REFERENCES