Implementation of an Evidence-Based Risk Assessment Tool and Prophylactic Treatment Plan to Reduce the Incidence of Postoperative Nausea and Vomiting

PURPOSE
This quality improvement project was designed to integrate an evidence-based risk assessment tool combined with a prophylactic treatment plan to help decrease the incidence of PONV in a high-risk surgical population.

BACKGROUND
PONV has been identified as a quality metric that anesthesia provider should regard as a high priority to focus on for improved patient outcomes.

METHODOLOGY
Utilizing the Society of Ambulatory Anesthesia (SAMBA) Consensus Guidelines for the Management of Postoperative Nausea and Vomiting of 2013, an institution-specific plan was implemented in a target surgical population for this QI project. An evidence-based risk assessment tool (RAT) and a prophylactic treatment plan (PTP) were designed, vetted by project champions and implemented in practice. Pre-implementation PONV incidence was compared to implementation phase PONV incidence to determine the clinical effectiveness of the QI project. Rate of provider utilization was also examined. Provider surveys were used to assess providers’ awareness of, and usability, of the developed initiative.

RESULTS
The incidence of PONV pre-implementation was at 56.7% (n=30). During the implementation phase, the incidence of PONV decreased to 46.9% (n=32). Despite a 9.8% decrease in incidence of PONV during the implementation phase of this QI project, there was no statistically significant (p = .594) decrease in PONV during the implementation phase of the project. There was only a 15.6% provider utilization rate among the specific cases identified in the target group. Despite evidence showing that an evidence-based comprehensive tool for PONV offers the best chance for decreasing the incidence of PONV, provider utilization of such efforts proves to be a major barrier to clinical practice incorporation.

IMPLICATIONS
Incorporate the use of evidence-based practices to improve patient outcomes, promote practice change and collaboration among the perioperative care team.