Application for ESRA Abstract Prizes: I don’t wish to apply for the ESRA Prizes

Background and Aims: A study by Wright et al. found that the probability of postoperative nausea and vomiting (PONV) increased for cases starting at 2pm compared with 7am. There has been no other study published exploring the association between time of surgery and PONV. To address this gap in knowledge, we conducted a study to determine the effect of surgical time of day on PONV.

Methods: With ethics approval, data of all patients undergoing elective non-cardiac non-neurosurgery, having a high-risk of PONV and which had a 24-hour assessment of PONV between October 2017 to December 2020 were extracted. Surgical-sessions were classified as either Morning-surgery (defined as start-time and end-time before noon) or Afternoon-surgery (defined as surgery start-time at 12noon). Those patients which had surgical-sessions extending across morning-sessions to afternoon-sessions were excluded. A propensity-score-matching (PSM) based on 1:1 matching was performed to potential biases. For the entire study population before matching, we used Pearson's chi-square test or Fisher's exact test for categorical variables; and Student's t-test or Mann-Whitney U-test for normally or non-normally distributed continuous-variables, respectively. For the matched study-population, we used conditional logistic-regression to test for differences. A p-value of <0.05 was considered statistically significant.

Results: Of the 3808 surgical-sessions, 1439 surgical-sessions were excluded from analysis because they extended between morning and afternoon-surgery. After 1:1 PSM, 1043 matched-pairs were obtained (table 1). The incidence of PONV, prior to matching remained statistically insignificant even after PSM (table 2).

Conclusions: We found that the time of surgery did not affect both the overall incidence and severity of PONV.

Attachment: tables.docx