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In The Surgical Patient Requiring Neuromuscular Blockade, Is There An Increased Incidence Of Postoperative Adverse Respiratory Events With Rocuronium Or Vecuronium?

Abstract
It is estimated that up to 45% of surgical patients will have postoperative residual neuromuscular blockade (NMB) upon arrival to the postanesthesia care unit (PACU), and incomplete recovery can impair upper airway function and contribute to adverse respiratory events (Nagelhout & Plaus, 2014). This retrospective cohort study examined whether there was an increased incidence of postoperative adverse respiratory events with the neuromuscular blocking agents Rocuronium or Vecuronium. Inclusion criteria included any surgical patient ages 18-65 receiving NMB agents Rocuronium or Vecuronium during the procedure. Exclusion criteria included any surgical patient ages 18-65 with ASA classification > 4, any emergent cases, any patient with documented neuromuscular disorder or history of prolonged intubation, and patients arriving intubated preoperatively. A Pearson Chi-Square test statistic was used to evaluate whether the patients receiving Rocuronium experienced a greater increase in post-operative adverse respiratory events compared with the patients whom received Vecuronium.