Implementing the Use of Intracuff Alkalinized Lidocaine among Certified Registered Nurse Anesthetists: A Practice Change Proposal

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Abstract
Patients today are experiencing comorbidities predisposing them to increased risk under general anesthesia. Emergence cough reflex is a response that can lead to hemodynamic alterations occurring during emergence and the postoperative period for many patients requiring general endotracheal tube anesthesia (GETA). It is proposed that 38% to 96% of patients receiving GETA will experience coughing during emergence (As, Iqbal, & Ali, 2009; Watkins, Lee, White Jr, & Mundy, 2012). The use of intracuff alkalinized lidocaine is an intervention shown to be effective in previous studies at blunting this response during anesthesia emergence. Through verbal communication with CRNAs, it was discovered that the use of intracuff alkalinized lidocaine was not currently being used at a facility in Southeastern Mississippi. An evidence-based poster presentation and brochure was prepared using the most recent studies utilizing intracuff alkalinized lidocaine and was presented to the CRNAs at this facility. 18 CRNAs participated in the baseline survey, evidence-based poster presentation, and received a brochure which illustrated the recent research findings on the use of intracuff alkalinized lidocaine. Two weeks after the presentation, 12 CRNAs participated in the follow-up survey. The follow-up surveys demonstrated the percentage use of intracuff alkalinized lidocaine was increased from 0% to 33% among CRNAs participating in this project. A total of four CRNAs implemented the intervention, reported 11 total cuff inflations in which 82% effectively inhibited the emergence cough reflex. The CRNAs reported that the main barrier to use intracuff alkalinized lidocaine was no recent patient interaction where it would be beneficial to the patients. Through individually presenting CRNAs with the evidence of intracuff alkalinized lidocaine’s effectiveness, the goal of this project was to increase the utilization of intracuff alkalinized lidocaine by CRNAs to prevent emergence cough reflex.