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IV Dexamethasone to Assist with Post Operative Pain and Nausea



Tasha Coumbs, BSN, RN, PCCN

Purpose

By doing this project, it better helps providers to see the connection to giving Intravenous (IV) Dexamethasone in the preoperative area compared to at the time of induction.

Background

Patients coming to perioperative services for surgical procedures, especially abdominal such as OB-GY, laparoscopic or exploratory, are at higher risk for uncontrolled pain and nausea in post op. This then requires extra medications to help control both pain and nausea, which can result in other side effects.

Methods

Both categorical and continuous data will be utilized for this QI project, including frequency, percentage, and T-tests on the two groups, for pain and nausea, evaluating total IV opiate and total IV antiemetic medications given. Goal for secondary analysis will be 50 cases for each group (dexamethasone/non-dexamethasone), within the specific timeframe.

Discussion

The PSPH protocol for administering IV dexamethasone is unclear and needs to be clarified. Different anesthesiologist give dexamethasone at different doses and times, and this creates inconsistency. One limitation to this study was only abdominal procures were studied. Further research could include other procedures such as orthopedics and neurological.

Results

Giving IV dexamethasone 2-4 hours prior to surgical start time results in a decrease in pain and nausea. Patients require less IV narcotics 6 hours post operatively as well as little to no IV anti emetics.

Implications for Practice

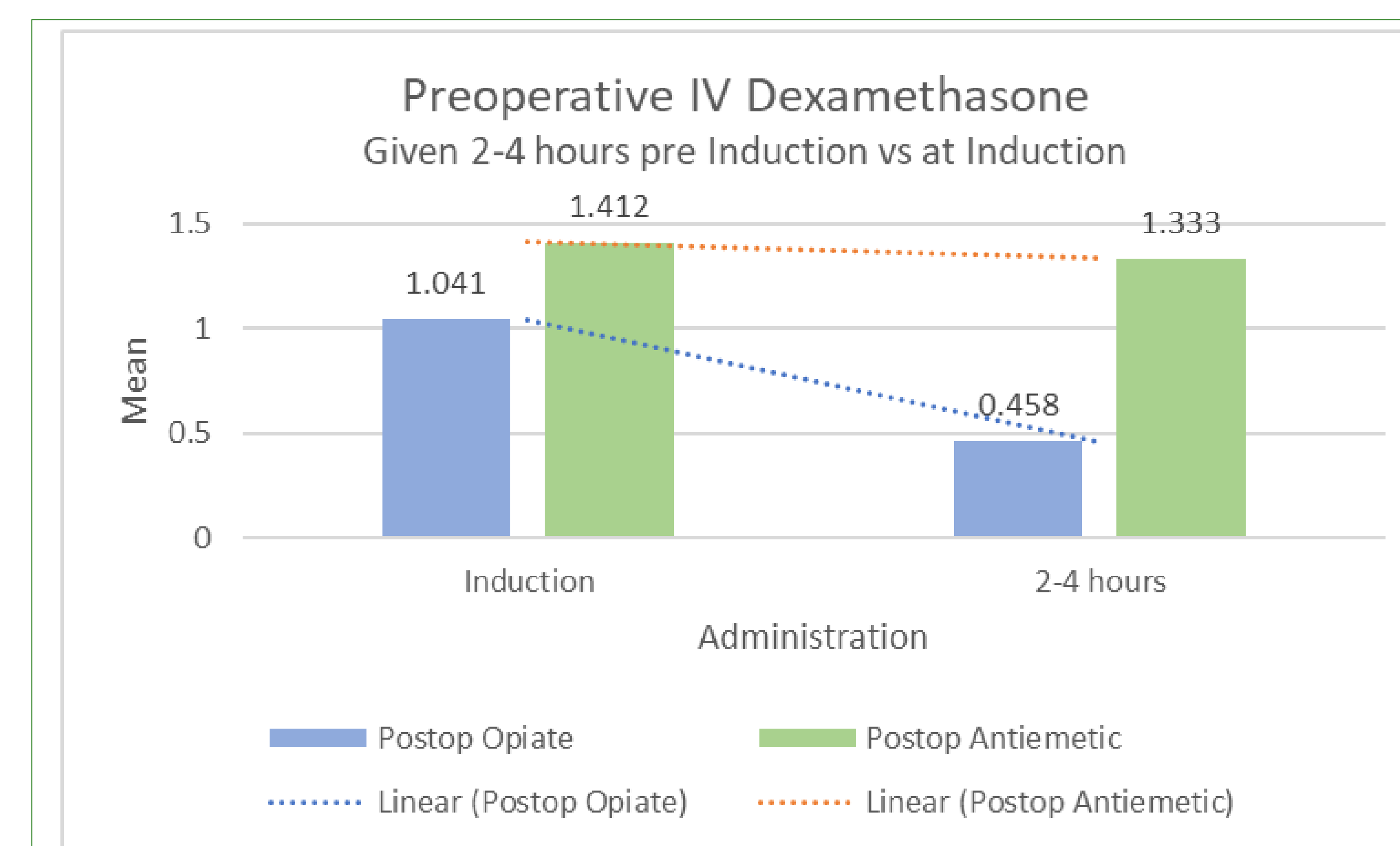
IV dexamethasone would be better utilized being administered in the perioperative time frame instead of right at the time of induction. A further discussion between anesthesiologist should be reviewed for a clarification in policy and procedure.

Data

Secondary data review (n=255), male 31.8%, female 68.2%, 18 to 88 years of age (M 52.88), 77.6% white, 93.3% not Hispanic or Latino. Most common surgeries: hysterectomy (20.8%), cholecystectomy (19.6%) and hernia repair (17.6%). Preop IV dexamethasone, anytime during the preoperatively period, was administered 82.4%, with 10 mg (55.3%) most common quantity. Preop IV dexamethasone, 2 to 4 hours prior to surgery, was only administered in 1.4% cases, with 4 mg (100%).

T-test (n=255) demonstrates postoperative total opiate (M 1.024, SD 2.562), total antiemetic (M 1.397, SD 2.557) when preoperative IV dexamethasone administered. Comparatively, T-test (n=255) demonstrates (M .741, SD 1.315) and (M 1.267, SD 2.219), respectively, when preoperative IV dexamethasone is not administered.

Simple regression analysis of preoperative IV dexamethasone administered 2 to 4 hours before surgical start time (n=3), demonstrated reduction in postoperative IV total opiate mean (M=.458, SD=.491) and IV total antiemetic (M=1.333, SD=2.309), with a dose of 4 mg. Due to the small sample size, additional quality improvement initiative is needed to determine significance.



Acknowledgments

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