



THE ROLE OF LOCAL ANESTHESIA TO REDUCE POSTOPERATIVE OPIOID USE IN TOTAL KNEE REPLACEMENT (Research)

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Purpose: To identify the relative risk reduction in opioid use following a total knee replacement in patients who received a femoral nerve block, or local infiltrative anesthesia intra-operatively.

Methods: A literature review was performed using a database search. Inclusion criteria were TKA patients receiving either local infiltration anesthesia or femoral nerve block. 7 studies were found that met inclusion criteria. 3 studies were excluded because concomitant use of other pain control methods were used. Of the 4 studies that met inclusion criteria A retrospective analysis was done to determine the relative risk reduction in postoperative opioid use in patients who received a femoral block.

Introduction: Due to the current opioid epidemic, an increasing interest has been focused on reducing opioid consumption in the postoperative period. Total knee replacement surgery is one of most common surgeries performed in the United States. Cox-2 inhibitors, acetaminophen, gabapentin, among other pain reduction methods have been studied to reduce post-operative pain after TKA. There is a growing body of evidence that suggests a decrease in opioid consumption after a femoral nerve block or local infiltrative anesthesia. However, no formal investigation has been done to look at relative risk reduction.

Results: 808 patients were identified that met criteria. Relative risk reduction in opioid consumption is calculated using standard statistical methods. The control group event rate was subtracted from the experimental event rate over the control group event rate. A relative risk reduction was found to be .56 (95% CI [.215 to .905]).

Conclusion: There was significant relative risk reduction in opioid consumption in the postoperative period in patients who received either a femoral nerve block or local anesthetic infiltration. Follow up studies should be conducted to determine the decrease in 30 and 90 day readmission rates in these patients. There are also potential long term benefits in morbidity and mortality in lowering opioid consumption overall