REPS Abstract Submission

Purpose/Background

Currently, the standard of care analgesic administered during total knee arthroplasties performed within the study institution is liposomal bupivacaine. Recent evidence has emerged to reveal inadequate postoperative pain control observed from utilization of this analgesic, leading to the potential for chronic pain development, resulting in an increased risk of opioid dependence. With the recent development and FDA approval of bupivacaine-meloxicam for administration as a needle-free installation indicated in patients undergoing a total knee arthroplasty, this study will aim to compare postoperative pain-related analgesic requirements following institutional approval for use and transition from current standard of care to this new, novel analgesic.

Methodology

This is a single center, IRB approved, retrospective and prospective chart review study, with an enrollment goal to include a total of 100 patients who have received a primary, total knee arthroplasty (TKA) under general anesthesia in accordance with standard of care within the study institution. Patients who received a one-time injection of the current standard of care analgesic, liposomal bupivacaine, from January 1st, 2021 – March 31st, 2021, will be compared to those who have received a one-time, needle free installation of bupivacaine-meloxicam during their TKA procedure from December 1st, 2021 – February 28th, 2022, after its transition to the standard of care analgesia at our institution. Study participants will have their electronic medical records reviewed to assess for the primary outcome of maintenance of pain relief through the comparison of average hourly postoperative morphine milliequivalents of opioid analgesics consumed through time to discharge between the two study groups. Secondary outcomes of postoperative, non-opioid analgesic medications consumed through discharge, opioid analgesic prescriptions filled through 28 days post-discharge, observation of knee buckling or weakness during the initial postoperative physical therapy session, and readmissions for postoperative infections or wound dehiscence through 28 days post-discharge will also be assessed. Additionally, safety outcomes to assess for frequency of reported adverse drug-related events commonly associated with each of the analgesics, in addition to opioid-related adverse effects, will also be collected for comparison between the two study groups.

Results: To be presented

Conclusions: To be presented

Presentation Objective: Compare data from the utilization of liposomal bupivacaine and bupivacaine-meloxicam to determine appropriateness for future use within TKA procedures.