

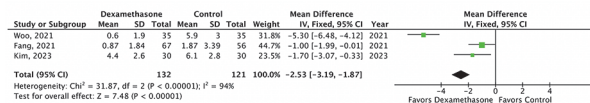
Abstract OP056 Table 1 Outcomes table

Table with 12 columns: Study, Liposomal Bupivacaine, Bupivacaine, Population, Laboratory, Primary Outcome, Secondary Outcome, Intervention, Control, Mean, SD, Total, Mean, SD, Total, Mean Difference, IV, Fixed, 95% CI, Year. Rows include studies like Woo, 2021; Fang, 2021; Kim, 2023.

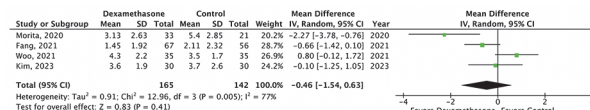
Results Liposomal bupivacaine seems to be beneficial during the first 24 hours considering the length of hospital stay and opioid rescue medication. The way pain scores are reported varied among studies and different time assessments were used. The majority of studies reported lower pain scores with liposomal bupivacaine during the first 24h.

Conclusions Our findings suggest that the use of liposomal bupivacaine for local infiltration demonstrates a promising trend towards efficacy, with the potential to decrease both inpatient opioid consumption and antiemetic use following breast surgery. Due to the heterogeneous outcome data captured on pain scores, it is difficult to determine its real impact. We urge societies to support standardized ways to evaluate pain and other outcomes of interest for regional anesthesia.

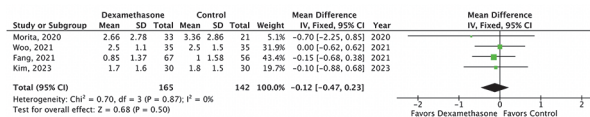
Results The literature search identified 1160 studies, out of which 4 studies met the inclusion criteria, involving a combined population of 307 patients. Significant differences in the VAS scores were observed between the perineural dexamethasone and control groups at 12 hours (figure 1). However, there were no significant differences in VAS scores between the two groups at 24 hours (figure 2) and 48 hours (figure 3).



Abstract OP057 Figure 1 Mean values of visual analogue scale (VAS) at 12 hours post-surgery



Abstract OP057 Figure 2 Mean values of visual analogue scale (VAS) at 24 hours post-surgery



Abstract OP057 Figure 3 Mean values of visual analogue scale (VAS) at 48 hours post-surgery

OP057 EFFECTIVENESS OF DEXAMETHASONE IN REDUCING REBOUND PAIN AFTER BRACHIAL PLEXUS BLOCK: A SYSTEMATIC REVIEW AND META-ANALYSIS

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10.1136/rapm-2023-ESRA.57

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Application for ESRA Abstract Prizes: I apply as an Anesthesiologist (Aged 35 years old or less)

Background and Aims Brachial plexus block (BPB) is commonly used for regional anaesthesia for superior limb orthopedic surgery. However, rebound pain after BPB resolution may limit its efficacy. This study aims to synthesize evidence on the effects of perineural dexamethasone on post-BPB rebound pain.

Methods A systematic search of MEDLINE, EMBASE, and Cochrane Library databases was conducted until April 18, 2023. The present study incorporates randomized and non-randomized controlled trials, which evaluate the outcomes of rebound pain in patients undergoing BPB procedures with perineural dexamethasone as compared to control groups. Mean values of visual analogue scale (VAS) at 12, 24, and 48 hours post-surgery were extracted, and mean difference (MD) was calculated. Statistical analyses were performed using RevMan 5.4. Our study is registered in the PROSPERO under protocol CRD42023418469.

OP058 CRYOANALGESIA DECREASED PREOPERATIVE PAIN SCORES BEFORE TOTAL KNEE ARTHROPLASTY WITH NO DIFFERENCE IN POSTOPERATIVE OPIOID CONSUMPTION

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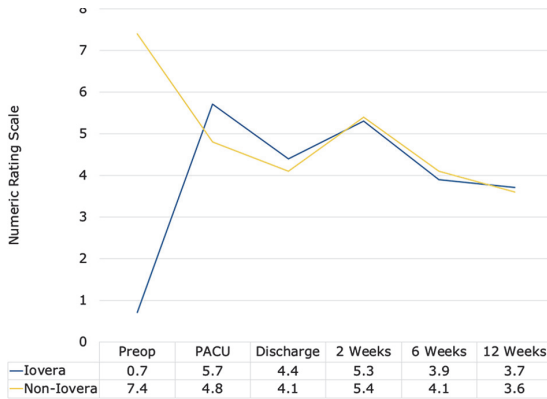
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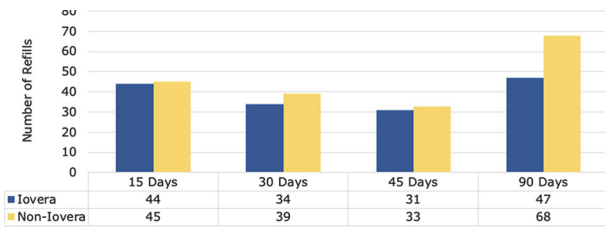
Background and Aims Total knee arthroplasty surgery is one of the most common orthopedic surgeries performed and are associated with high pain scores and opioid requirements. Novel multimodal pain management is a priority. A gap in the literature exists regarding the effects cryoanalgesia on

postoperative opioid consumption. The aim of this study was to determine the effect of cryoanalgesia on opioid consumption by evaluating the number of prescription refills up to 90 days postoperatively.

**Methods** A retrospective chart review of 103 subjects that received a standard ERAS protocol with peripheral nerve blocks. 45 subjects received cryoanalgesia treatment to three anterior femoral cutaneous and the infrapatellar branch of the saphenous nerves and 58 subjects did not receive cryoanalgesia. Outcomes evaluated were total postoperative opioid prescription refills at days 15, 30, 45, and 90, total morphine milliequivalents, postoperative pain scores between time intervals, and pain scores.



Abstract OP058 Figure 1 Pain scores



Abstract OP058 Figure 2 Number of refills

# of Refills Cryoanalgesia vs. Non-Cryoanalgesia: p-values	
15 days	0.215
30 days	0.313
45 days	0.533
90 days	0.743

Abstract OP058 Figure 3 Stats for refills

**Results** There was not a significant reduction in total postoperative opioid prescription refills or total morphine milliequivalents at any time interval between the groups. There was a significant difference ( $p < 0.001$ ) in refills between days 45 and 90 in the Non-Cryoanalgesia group. There was a statistically significant reduction in the average preoperative pain scores with 0.7 in the cryoanalgesia group and 7.4 in the non-cryoanalgesia group ( $P < 0.001$ ).

**Conclusions** Preoperative cryoanalgesia treatment does not significantly decrease postoperative opioid consumption, but significantly lowers preoperative pain scores in patients undergoing TKA and refills between 45 and 90 days. This could be an excellent treatment for patients who cannot undergo or the procedure must be delayed for optimization.

**OP059 ANESTHETIC TECHNIQUE AND POSTOPERATIVE PULMONARY COMPLICATIONS (PPC) AFTER VATS LOBECTOMY**

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10.1136/rapm-2023-ESRA.59

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**Background and Aims** Thoracic surgery is associated with a high incidence of PPCs. Despite advancements in surgical technique, pulmonary complications due to pain are the most common cause of morbidity. Our study examined the association between anesthetic technique and PPCs after VATS lobectomy (Video Assisted Thoracoscopic surgery).

**Methods** This study was determined to be exempt from University of Virginia ethics committee review. National American College of Surgeons National Surgical Quality Improvement Program database was searched for VATS lobectomy cases from 2017 to 2021. Cases were stratified into four groups—GA alone, GA + local, GA + Regional, and GA + Epidural. Generalized linear regression models were used to examine the effect of anesthetic technique on study's primary outcome—any occurrence of PPC (pneumonia, reintubation, or postoperative ventilation >48 hours). The secondary outcome was length of stay (LOS).

**Results** A total of 15,084 cases were identified and 14,477 cases met study inclusion. The 4 groups had PPC rate between 3.5-5.2%. There was no statistically significant difference in the odds of PPCs when an additional anesthesia technique was added to GA (figure 1). As compared to GA alone group, LOS was significantly lower in the regional and local group by 7.8% and 8.6% respectively (both  $ps < 0.001$ -figure 2). The epidural group had longer LOS by 16% ( $p < 0.001$ ).