# PERIOPERATIVE INTERVENTIONS AIMED AT PREVENTING CHRONIC PAIN

# EFFECTIVENESS AND TOLERABILITY OF PERIOPERATIVE INTERVENTIONS TO PREVENT CHRONIC PAIN AFTER KNEE OR HIP REPLACEMENT SURGERY: A SYSTEMATIC REVIEW WITH NETWORK AND COMPONENT NETWORK META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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pain after knee or hip replacement surgery: A systematic review with network and

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#### **Abstract**

**Background** Chronic pain is a common complication after musculoskeletal and orthopedic surgeries. We conducted a systematic review with network and component network meta-analysis of randomized trials to assess the effectiveness and tolerability of perioperative pharmacological interventions for preventing chronic pain after knee or hip replacement surgery.

Methods We searched MEDLINE, Embase, PsycInfo, CINAHL, and CENTRAL to February 2025. Eligible trials enrolled adults undergoing knee or hip replacement, randomized them to any pharmacotherapy, combination, or placebo to reduce post-surgical pain, and assessed pain ≥3 months post-surgery. Outcomes included the proportion of patients reporting chronic post-surgical pain (CPSP), pain severity, physical and emotional functioning, and drop out rates. Analyses used frequentist random-effects models for network and an additive component network meta-analysis (CNMA). We assessed the certainty evidence following GRADE guidance using CINeMA platform.

**Findings** We included 59 trials (7,705 patients). At 3–6 months, epidural corticosteroid injection may reduce CPSP compared to usual care (risk ratio [RR] 0.35, 95% CI 0.14–0.90; risk difference 11.7% fewer patients, low certainty). At 6–12 months, wound infiltration of corticosteroids probably had little to no effect on pain intensity (mean difference [MD] –0.31, 95% CI –0.57 to –0.05, moderate certainty). At longest follow-up, ketamine may slightly improve physical function (MD 10.77, 95% CI 5.21–16.33, low certainty). Other interventions showed little to no effect on pain or functioning. CNMA indicated corticosteroids reduced CPSP risk (incremental RR 0.58, 95% CI 0.39–0.86).

Benefits were primarily observed in knee replacement surgeries. None of the interventions influenced dropout or tolerability.

Conclusions Low to moderate certainty evidence suggests epidural corticosteroid injection may reduce CPSP after knee/hip replacement, while most pharmacotherapies show minimal benefit. CNMA found the steroid component reduced CPSP risk; ketamine, nefopam, and steroids each improved physical function. Future research should prioritize large, randomized trials and identification of modifiable predictors of CPSP.

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This thesis would not have been possible without the support and encouragement of many people who have been part of my journey.

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My committee members deserve special recognition for their time and expertise. Their questions challenged me to think more deeply about my work, and their suggestions have undoubtedly made this thesis stronger.

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#### Declaration of Academic Achievement

The work described in this thesis was conducted under the leadership of Azin Khosravirad, referred to as the "primary researcher." The primary researcher was responsible for the study design, data collection, analysis, methodology, project management, and writing.

Dr. Behnam Sadeghirad supervised the study, provided methodological expertise, and played a significant editorial role. The committee members, Dr. Jason W. Busse, Dr. Lawrence Mbuagbaw and Dr. Andra Darzi, also contributed methodological expertise. Rachel Couban revised the search strategy.

Malahat Khalili, Shiva Shahabi, and Kian Torabiardakani participated in screening and data extraction, under the guidance of the primary researcher. The primary researcher acted as the secondary reviewer and resolved any disagreements. The primary researcher also conducted the data analysis and interpretation and wrote the manuscript.

### Chapter 1. Introduction

Joint replacement surgery represents a significant advancement in treating degenerative joint conditions, yet the persistence of post-surgical pain remains a critical challenge in orthopedic medicine (1, 2). Chronic postsurgical pain (CPSP), defined as pain that develops or worsens after surgery, at or near the site of surgery, and persists beyond the normal healing process (i.e., more than three months after the procedure), that is not otherwise explained by a pre-existing condition or infection (3), has emerged as a substantial concern in joint replacement procedures (4). This condition impacts both patient recovery and surgical outcome optimization (5, 6).

The growing prevalence of total hip and knee arthroplasties (THA and TKA) in developed nations, driven by aging populations and increasing life expectancy (7-9), underscores the urgency of addressing CPSP (10). Despite representing value-based solutions to end-stage arthritis (11), current evidence suggests that between 15% and 30% of patients who undergo total joint arthroplasty experience persistent pain (12). This prevalence occurs within a broader surgical context where CPSP affects patients across various procedures, ranging from 5% following laminectomy and spinal fusion to 85% following limb amputation (13). CPSP has a multifactorial etiology, involving biological, psychosocial, and perioperative factors, including the type and approach of surgery (3, 14). This persistent pain significantly diminishes the therapeutic benefits of joint replacement surgery, affecting both rehabilitation progress and long-term quality of life outcomes (15).

The perioperative period presents a critical window for implementing preventive measures against CPSP (3, 16). Healthcare practitioners have developed diverse approaches, encompassing pharmacological interventions, specialized anesthetic protocols, and psychological support strategies (17-19). These interventions often involve intricate combinations of multiple components, administered at various stages of the perioperative journey. The complexity of these treatment protocols, however, creates substantial challenges in determining optimal intervention strategies (20)

Previous research has examined individual treatment modalities, including gabapentinoids (21, 22), antidepressants (23, 24), ketamine (25), opioids (26), nonsteroidal anti-inflammatory drugs (NSAIDs) (27, 28), muscle relaxants (29), acetaminophen (30, 31), and corticosteroids (32, 33). However, the current literature primarily focuses on comparing single interventions against placebos or standard care protocols, limiting our understanding of comparative effectiveness between active treatments (34, 35). This fragmented approach to evidence synthesis has limited our ability to identify the most effective intervention strategies (36, 37)

Traditional pairwise meta-analyses cannot adequately address questions about the relative effectiveness of multiple interventions when head-to-head comparisons are limited. Network meta-analysis (NMA) offers a methodological solution to this challenge by enabling comprehensive comparisons across multiple interventions simultaneously (34, 38). This is particularly valuable when evaluating interventions based on trials with small sample sizes, which is common in trials focused on CPSP management (28). While

conventional NMA treats each multicomponent intervention as a distinct node in the network, CNMA decomposes these complex interventions into their constituent components and estimates the individual effect of each component. This decomposition approach allows CNMA to estimate effects for any combination of components—even those not directly studied—by assuming that the effect of combined treatments equals the sum of their individual component effects, thereby borrowing strength across studies that share common components (39, 40). Such analysis is particularly valuable in the context of joint replacement surgery, where multiple intervention options exist and the optimal combination of components remains unclear.

Given the multifactorial nature of CPSP and the variation in CPSP risk factors and outcomes across different surgical procedures (13), this review specifically focuses on knee and hip replacement surgeries (36). By narrowing our scope to these procedures, we aim to limit heterogeneity in prognostic factors, co-interventions, and relative treatment effects while maximizing the clinical applicability of our findings. Our primary objective is to conduct a systematic review employing both NMA and CNMA methodologies to evaluate the relative effectiveness of perioperative interventions and their constituent components in preventing CPSP following knee and hip replacement surgery.

#### Chapter 2. Methods

#### Standardized reporting and protocol registration

We published our protocol in an open-access journal (41) and registered it in PROSPERO (CRD42023432503). PRISMA-NMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for reporting systematic reviews incorporating NMA) guidelines were followed for reporting findings from our review (42).

#### Eligibility criteria and study selection

We included randomized controlled trials (RCTs) of any design (parallel-group, multi-arm) that evaluated perioperative interventions aimed at preventing chronic post-surgical pain (CPSP) after knee or hip replacement surgeries. Multi-arm trials were included provided they contained at least one pair of study.

We excluded dose-finding trials and those that randomized patients to different dosages of the same drug without any other active comparison, usual care, placebo, or no-treatment control. Cross-over trials were excluded as they are inappropriate for evaluating long-term outcomes such as CPSP at 3-12 months post-surgery. We included studies regardless of language or publication status to minimize publication bias. Conference abstracts were included if they provided sufficient data for analysis; otherwise, we attempted to contact the authors for additional information.

We included studies that enrolled adult (aged 18 years or older) patients undergoing total or partial knee arthroplasty (TKA) or hip arthroplasty (THA), or revision surgeries, regardless of the indication for surgery (osteoarthritis, rheumatoid arthritis, avascular

necrosis, or other degenerative joint conditions). Studies that included mixed populations were eligible if data for knee and hip replacement participants could be extracted separately or if they constituted at least 80% of the study population. We excluded studies that exclusively recruited pediatric patients, as the pathophysiology, surgical approach, and pain management strategies differ significantly in this population. Additionally, we excluded studies that exclusively enrolled patients with pre-existing chronic pain syndromes unrelated to their joint pathology (fibromyalgia, complex regional pain syndrome) as these conditions could confound the assessment of post-surgical pain outcomes.

For the treatment-level network meta-analysis, we categorized interventions based on their complete formulation to maintain clinical relevance. We included any perioperative pharmacological interventions aimed at preventing CPSP after knee or hip replacement surgeries. The eligible interventions encompassed medications administered through any route (oral, intravenous, epidural, spinal, peripheral nerve block, wound infiltration) before, during, or after surgery, including their combinations.

Studies were eligible if they compared an intervention of interest with:

- Usual care (standard perioperative pain management protocols)
- Placebo
- No treatment control
- Another eligible pharmacological intervention

Studies were excluded if an intervention arm received additional non-pharmacological components (specialized physical therapy or psychological interventions) that were not equally provided to all study arms.

For our CNMA, we evaluated the comparative effects of the following component types from co-interventions and combination therapies:

- Non-steroidal anti-inflammatory drugs (NSAIDs)
- Acetaminophen
- Gabapentinoids (pregabalin, gabapentin)
- Ketamine
- Corticosteroids
- Local anesthetics
- Opioids
- Antidepressants (duloxetine, nefopam)
- Other adjuvants (epinephrine, magnesium, baclofen, clonidine, dexmedetomidine)

This component classification allowed us to deconstruct complex interventions into their constituent parts and evaluate the relative contribution of each component to the overall treatment effect.

#### Outcomes of interest

To be eligible for inclusion, studies had to assess pain or functional outcomes at least three months following surgery. Our outcomes of interest were as follows:

Chronic post-surgical pain (CPSP) at 3-6 months and 6-12 months after surgery, defined as:

- The proportion of patients reporting CPSP (as defined by the International Classification of Diseases, 11th revision (ICD-11) or earlier revisions)
- Alternatively, the proportion of patients with moderate-to-severe pain (≥4 on a 0-10 VAS/NRS scale)

Pain intensity at 3-6 months and 6-12 months after surgery, measured using:

- Visual analog scale (VAS, 0-10 cm or 0-100 mm)
- Numerical rating scale (NRS, 0-10)
- Other validated pain intensity instrument

Physical functioning or disability at longest follow-up, measured using:

- Physical functioning component summary score (PCS); The physical functioning subscale of the 36-item Short Form Health Survey (SF-36), SF-12 or SF-6
- Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC)
   physical function subscale
- Knee injury and Osteoarthritis Outcome Score (KOOS) or Hip disability and Osteoarthritis Outcome Score (HOOS)
- Oxford Knee Score or Oxford Hip Score
- Other validated physical function instruments specific to knee or hip replacement outcomes

All-cause drop out and drop out due to adverse events at latest follow up

- Overall dropout rate (all-cause discontinuation) measured on an intention-to-treat basis at the longest available follow-up.
- Intervention-related withdrawal number of participants who withdrew from the trial due to adverse effects of the pharmacological intervention, measured on an intention-to-treat basis at the longest available follow-up.

#### Electronic searches

We searched Medline and Embase via Ovid platform, Cumulative Index to Nursing and Allied Health Literature (CINAHL) via EBSCO, and Cochrane Central Register of Controlled Trials from inception to February 10, 2025, without language or publication status restrictions:

We screened reference lists of all included studies and relevant systematic reviews to identify additional eligible trials. We also performed citation tracking of key included papers using Google Scholar and Web of Science to identify further potential studies.

We applied validated search filters for randomized controlled trials to increase search precision. The complete search strategies for each database are presented in (Supplementary files, Search Strategy).

#### Data collection and analysis

We uploaded the results of our searches into the Covidence platform (https://www.covidence.org), which automatically removed most duplicate records. Pairs of reviewers independently screened each reference to establish eligibility for inclusion in

our review. First, titles and abstracts were screened for potential relevance to our research question. We retrieved full-text reports for those deemed potential relevant. The same pairs of reviewers independently screened each full text against our predefined eligibility criteria. Disagreements were resolved through discussion or involvement of a third reviewer if needed. Inter-reviewer agreement for the full-text screening process was excellent ( $\kappa = 0.94, 95\%$  CI: 0.89 to 0.98).

#### Data extraction and management

We developed a standardized data extraction form and piloted it on a sample of included studies to ensure consistency. Two review authors independently extracted data from each eligible study, with any discrepancies resolved through discussion or consulting a third reviewer if needed.

We extracted the following information from each study:

- Study characteristics: Publication details (author, year, journal), trial registration number, country, funding source, author conflicts of interest, study design, and sample size calculation.
- Participant characteristics: Number of patients randomized to each arm, age (mean and standard deviation), sex distribution, type of surgery (TKA or THA), surgical approach, preoperative pain scores and preoperative analgesic use.
- Intervention and comparator details: Drug name, dosage, route of administration (oral, intravenous, periarticular, epidural, etc.), timing of administration (preoperative,

intraoperative, postoperative), and duration of treatment. For combination therapies, we extracted details of each component.

- Co-interventions and postoperative pain management: Type of anesthesia (general, spinal, combined), standard perioperative pain management protocols, additional analgesics allowed, rehabilitation protocols, and any other co-interventions that might influence pain outcomes.
- Outcome data: we extracted the measurement tool used, timepoints of assessment, number of participants assessed at each timepoint, means and standard deviations for continuous outcomes, and number of events for dichotomous outcomes. For pain outcomes, we recorded the pain scale used and any information on pain characteristics (rest pain, movement pain, etc.).

For continuous outcomes reported using different scales, we noted the direction of each scale to ensure correct interpretation during data synthesis. When studies presented data in graphs without providing exact values, we used web plot digitalizer (<a href="https://plotdigitizer.com">https://plotdigitizer.com</a>) to approximate values.

For multi-arm trials, we extracted data from all relevant arms and noted which comparisons would be included in each analysis to avoid double-counting participants. When outcomes were reported at multiple timepoints within our predefined intervals, we prioritized the data from the longest follow-up within each interval. All extracted data were entered into a secure database, with a third reviewer verifying the accuracy of all entries.

#### Assessment of risk of bias

We assessed risk of bias for each included study using the modified Cochrane risk-of-bias tool for randomized trials (RoB 2) (43, 44). This updated tool evaluates bias arising from the randomization process, deviations from intended interventions, missing outcome data, the measurement of the outcome and the selection of the reported result. For each domain, we answered signalling questions and judged the risk as "low," "some concerns," or "high" according to the algorithms provided in the RoB 2 guidance.

Regarding missing outcome data, we considered the amount, reasons for, and handling of missing data. A loss to follow-up >20% was generally considered problematic, particularly when reasons differ between groups. Studies were rated as low overall risk of bias if all domains are at low risk of bias, as high risk of bias if one or more domains are rated at high risk of bias, and as having some concerns in all the other cases. Two review authors independently assessed risk of bias for each study, with disagreements resolved through discussion or consulting a third reviewer if needed.

#### Data synthesis and certainty of evidence assessment

All randomized participants were analyzed according to their allocated treatment group, regardless of adherence to the protocol or completion of the intervention, consistent with the intention-to-treat principle. We did not differentiate nodes based on the dose and duration of therapy.

When multiple scales were used to measure the same outcome, we prioritized the most widely used scales over those that were rarely used or unique to individual studies and gave preference to scales used by other studies within the same analysis. When studies employed

different measurement instruments for capturing the same outcome, we converted treatment effects to the most commonly used instrument using the formulae provided by Thorlund et al. (45). We transformed all pain intensity measurements to a 10 cm visual analogue scale (VAS) and all physical function measurements to the SF-36 physical functioning subscale (100-point scale).

For our binary outcomes (proportions of patients with CPSP in 3 to 6 months and 6 to 12 months follow up times and discontinuation and tolerability at the latest follow up), we report pooled effect estimates as risk ratio (RR) and risk difference (RD) with corresponding 95% confidence intervals (CIs) for the NMA and incremental risk ratio (iRR) with 95% CIs for CNMA. We calculated absolute risk estimates by multiplying the RR and its 95% CI by using the median risk from the placebo arms of the included trials as baseline risk (46, 47). For continuous outcomes (pain intensity in 3 to 6 months and 6 to 12 months follow up and physical functioning at the longest follow up), we used pain and physical function values at the follow-up and pooled estimates as weighted mean difference (WMD) for the analysis. For CNMA framework we reported incremental mean difference (iMD) with 95% CIs.

The minimal important difference (MID) represents the smallest improvement in a treatment outcome that patients consider clinically significant (47). For pain intensity measured on the 10 cm VAS, we used an MID of 1 point (48). For physical function assessed using the SF-36 physical functioning subscale, we used an MID of 10 points (49).

For the proportion of patients with CPSP, when studies did not directly report this outcome but provided mean pain scores and standard deviations, we used the method proposed by Suissa (48) and validated by Furukawa et al. and Samara et al. (49, 50) to impute the proportion of patients with moderate-to-severe pain (defined as pain scores ≥ 4 on a 0-10 scale). This method uses the formula: number of participants at endpoint × normal standard distribution corresponding with (4 − endpoint score)/SD. For continuous outcomes with missing standard deviations, we imputed them using standard deviations from other studies using the same measurement scale or, when not available, by calculating them from reported confidence intervals, standard errors, t-values, or p-values. If a study reported medians and interquartile ranges instead of means and standard deviations, we converted these according to the methods described by Wan et al. (51).

Network Meta-Analysis Methodology

Treatment-level network meta-analysis

We used a frequentist framework to conduct network meta-analyses (NMAs) for each outcome, considering the complexity of multiple interventions and the need to compare treatments that have not been directly compared in head-to-head trials. This approach enabled us to simultaneously evaluate all relevant interventions and establish a hierarchy of effectiveness while accounting for both direct and indirect evidence.

For each outcome, we first assessed the feasibility of performing NMA by examining network connectivity, ensuring sufficient trials were available (minimum of 10 trials), and evaluating the transitivity assumption. Transitivity was assessed by NMA-studio web application (<a href="https://www.nmastudioapp.com">https://www.nmastudioapp.com</a>) (52) examining the distribution of potential

prognostic factors (proportion of female participants, pain level before surgery, and type of anesthesia and overall ROB) across treatment comparisons. These prognostic factors were selected based on their established clinical relevance as potential effect modifiers in perioperative pain outcomes and their adequate reporting across the majority of included studies, with transitivity considered satisfied when their distribution was reasonably comparable across direct treatment comparisons.

When NMA was feasible, we performed a contrast-based random-effects model with a common heterogeneity estimate. For each pairwise comparison within the network, we first calculated direct effect estimates using the DerSimonian-Laird random-effects model (34, 53) and assessed statistical heterogeneity by visual inspection of forest plots and I<sup>2</sup> values for all direct comparisons.

We assessed the coherence (consistency) assumption of each network using two approaches: (1) the "design-by-treatment" interaction model (54) to assess global incoherence across the entire network, and (2) the side-splitting method (55) to evaluate local inconsistency by comparing direct and indirect evidence for each treatment comparison. When statistically significant inconsistency was detected, we rated down the certainty of evidence for inconsistency. To investigate small-study effects, we applied Harbord's test (56) for binary outcomes and Egger's test (57) for continuous outcomes when at least 10 trials contributed to a direct comparison.

Component network meta-analysis

We explored the relative efficacy of individual intervention components within and across treatments using CNMA. We performed an additive CNMA in a frequentist framework

(40), which allowed us to isolate the effects of individual components rather than evaluating complete intervention packages. This approach enhanced network connectivity and improved the precision of effect estimates by leveraging shared components across different treatment combinations (58).

The additive CNMA model operates under the assumption that the effects of individual components are additive—that is, the effect of a treatment comprising multiple components equals the sum of the expected effects of those individual components (40). This assumption is clinically plausible in perioperative pain management, as different medication classes typically work through independent mechanisms of action. Decomposing complex interventions into their constituent components resulted in disconnected component comparisons within the network. Since treatments were composed of shared components across different subnetworks, we utilized the additivity assumption to connect these subnetworks and estimate relative treatment effects (59). Given that standard NMA cannot be applied to disconnected networks, we implemented the analysis using the frequentist framework with the discomb() function from the netmeta package in R (60).

We designated the usual care component as the reference intervention for presenting all comparative results, allowing for consistent interpretation of component effects relative to standard practice.

Our primary analysis was treatment-level network meta-analyses (NMAs) combining all surgical procedures (knee and hip replacement) for each outcome. CNMA was performed

on the combined dataset including both knee and hip replacement surgeries, allowing us to leverage the full network of evidence while accounting for surgical procedure type as a covariate.

#### Subgroup and sensitivity analyses

To explore potential sources of heterogeneity and identify effect modifiers on network estimates, we conducted network meta-regression analyses for each outcome. The covariates examined included proportion of female participants, preoperative pain intensity, type of anesthesia (general versus other), overall risk of bias (low versus high), and veteran patient population (veteran versus non-veteran). Additionally, we conducted separate network analyses for knee and hip replacement surgeries to explore potential differences based on surgery type and assess the effectiveness of perioperative interventions in each surgical population.

All analyses were conducted using R statistical software (version 4.3.3; R Core Team 2024) using the netmeta package (61).

#### Confidence ratings for network comparisons

We evaluated the certainty of evidence in the result of the standard NMA using the Confidence in Network Meta-Analysis (CINeMA) framework, which provides a systematic methodology for assessing confidence in network meta-analysis results (61). This framework examines six critical domains: within-study bias (i.e., methodological limitations due to risk of bias), reporting bias (i.e., limitations due to missing outcome data), indirectness, imprecision, heterogeneity (or inconsistency), and incoherence. Each domain receives a judgment at one of three levels—no concerns, some concerns, or major

concerns—which are then synthesized to assign an overall confidence rating corresponding to the standard GRADE categories of very low, low, moderate, or high certainty (62).

The assessment process relies heavily on the percentage contribution matrix, which determines how much each individual study contributes to the network results. This matrix proves particularly important when evaluating within-study bias and indirectness, as it identifies which studies have the greatest influence on specific comparisons. When assessing imprecision, heterogeneity, and incoherence, we carefully considered how these sources of uncertainty might affect clinical decision-making. We established specific criteria for determining imprecision based on clinically meaningful thresholds. For continuous outcomes, we used the minimal important difference as the boundary for acceptable precision (MID values used are mentioned above), while for binary outcomes, we used the null effect (RR=1) as the threshold for imprecision. We also considered optimal information size (OIS) when assessing imprecision, rating down for imprecision when the total sample size across the network was insufficient to detect clinically meaningful treatment effects or when confidence intervals crossed both clinically important benefit and harm thresholds.

#### Chapter 3. Results

#### Description of included studies

Our comprehensive search yielded 18,185 unique records after deduplication, of which 267 full-text articles were reviewed for eligibility (Figure 1). We included 59 randomized controlled trials (RCTs) from 58 publications involving 7,705 patients undergoing total knee arthroplasty (TKA) or total hip arthroplasty (THA) in our review. Of the 59 included RCTs, 46 trials evaluated interventions exclusively in total knee arthroplasty, 9 trials exclusively in total hip arthroplasty, and 4 trials included both TKA and THA procedures (Supplementary file, list of included studies). The predominance of knee replacement trials reflects the higher volume of TKA procedures and greater research focus on pain management in this population. Regarding the definition of chronic post-surgical pain, 12 RCTs explicitly used the International Association for the Study of Pain (IASP) definition of persistent post-surgical pain, while for the remaining trials, we imputed the number of events using the proportion of patients with moderate-to-severe pain (≥4 on a 0-10 scale) as described in our methods.

#### **Study Characteristics**

The included trials varied considerably in their study characteristics and methodological approaches. Study sample sizes ranged from 5 to 452 participants (median 46.5, IQR [30-76]). The majority of studies (81%) enrolled fewer than 100 participants, with only 4 trials (6%) having sample sizes larger than 200 patients, highlighting the predominance of small-scale studies in this field.

#### **Participant Characteristics**

The mean age of participants across included trials ranged from 53.9 to 75.5 years, with a pooled mean age of approximately 66 years, reflecting the typical demographic of patients undergoing elective joint replacement surgery. Female participants comprised 63% of the total study population, ranging from 34% to 100% across individual trials.

#### Intervention Characteristics

The 59 included trials evaluated a diverse range of perioperative pharmacological interventions. The most commonly studied intervention categories were corticosteroids (various formulations and routes) in 16 trials (28%), followed by local anesthetics (peripheral nerve blocks, wound infiltration) in 13 trials (22%), and gabapentinoids (pregabalin, gabapentin) in 8 trials (14%). Antidepressants (duloxetine, nefopam) were studied in 7 trials (12%), while NSAIDs (oral and intrathecal), other adjuvants (baclofen, chlorzoxazone, epinephrine, dexmedetomidine), and opioids (oral and intrathecal) were each evaluated in 4-5 trials (7-8%). Ketamine was studied in 3 trials (5%), and complex/multi-component interventions were evaluated in 3 trials (5%). Routes of administration varied substantially, with 36% of interventions administered orally, 21% through wound infiltration, 14% via peripheral nerve blocks, 10% intravenously, and 9% via epidural/spinal/perineural routes.

Co-interventions and postoperative pain management strategies differed considerably across surgical procedures. Among the 59 included RCTs, only 5 trials (8%) provided participants with a single postoperative intervention component targeted at pain management, while 14 trials (24%) included four or more postoperative intervention

components, and 10 trials (17%) did not report sufficient detail about postoperative pain management. Among trials that reported specific intervention components, 31 trials (57%) included at least one opioid component, and 34 trials (63%) included an NSAID or acetaminophen component as part of standard postoperative pain management after knee or hip replacement surgery. (Supplementary file, Table 1).

#### Risk of bias

More than half of included trials were at high overall risk of bias (59 RCTs) and only 19% were judged to have overall low risk of bias (11 RCTs). Majority of studies had risk of bias issues due to deviations from intended interventions (blinding and allocation concealment) and due to missing outcome data (**supplementary file, Table 5**). A large majority of studies were small trials, with 81% (N = 48) having a sample size less than 100 patients and only 6% (N = 4) having a sample size larger than 200 patients.

#### Chronic post-surgical pain

A total of 34 studies were available for NMA of proportion of patients with CPSP at 3 to 6 months after surgery. **Figure 2(A)** presents the network of interventions. At this timepoint, adding an epidural corticosteroid injection to standard pain management may result in a reduction in the proportion of patients with CPSP (RR, 0.35; 95% CI [0.14, 0.90], low certainty; RD, 11.7% fewer patients; 95% CI [1.8% to 15.5%]). (**supplementary file, Table 2 and 6**). No other intervention showed statistically significant benefit compared to usual care. The median rate of CPSP in usual care arm of included trials were 18.0% [IQR 11.4 to 33.8]. We did not find any evidence of incoherence in the network or closed loops of evidence (**supplementary file, Table 7**).

Among the 27 studies specifically evaluating knee replacement surgeries at 3 to 6 months follow-up, epidural corticosteroid injection (RR 0.34, 95% CI [0.12, 0.99]; RD, 10.6% fewer patient; 95% CI [0.2% to 14.1%]) showed statistically significant reductions in CPSP compared to usual care. No other pairwise comparison showed statistically significant effect estimate (**supplementary file, Table 8**). The median rate of CPSP in usual care arm of included trials were 16.0% [IQR 10 to 22]. We did not find any evidence of incoherence in the network or closed loops of evidence (**supplementary file, Table 9**). For hip replacement surgeries (3 trials), no interventions showed statistically significant benefit (**supplementary file, Table 10**). The median rate of CPSP in usual care arm of included trials were 28.0% [IQR 19 to 34].

At 6 to 12 months follow-up, 20 trials were available for NMA of proportion of patients with CPSP. Figure 2(B) presents the network of interventions. Low to moderate certainty evidence suggests all interventions may result in little to no difference in proportion of patients with CPSP at 6 to 12 months after surgery (supplementary file, Table 2 and 11). The median rate of CPSP in usual care arm of included trials was 9.0% [IQR 6.3 to 25.6]. We did not find any evidence of incoherence in the network or closed loops of evidence.

At this time, the NMA regarding the proportion of patients with CPSP for 15 studies on knee replacement and three trials on hip replacement, separately showed no statistically significant benefit compared to usual care and other pairwise comparisons (supplementary file, Table 12 and 13). We did not find any evidence of incoherence in the network or closed loops of evidence. The median rate of CPSP in usual care arm of

included trials for knee and hip replacement surgeries were 8.1% [IQR 6.5 to 12.2] and 6.3% [IQR 6.3 to 46], respectively.

#### Pain intensity

Pain severity was reported in 42 trials at 3 to 6 months after surgery, respectively. **Figure 3 (A)** presents the network of interventions. Very low to moderate certainty evidence suggests all interventions may result in little to no difference in pain intensity compared to usual care and other pairwise comparisons (**supplementary file, Table 3 and 14**). The median acute postoperative pain intensity on a 0-10 cm VAS of included trials was 3.18 cm [IQR 2.24 to 4.00] from day 1 to week 8. We did not find any evidence of incoherence in the network or closed loops of evidence (**supplementary file, Table 15**).

The NMA of pain intensity for 35 studies on knee replacement and 4 studies on hip replacement at 3 to 6 months, separately showed no statistically significant intervention benefit compared to usual care and other pairwise comparisons (supplementary file, e-Table 16 and 18). We did not find any evidence of incoherence in the network or closed loops of evidence (supplementary file, Table 17).

A total of 25 studies were available for NMA of pain intensity at 6 to 12 months after surgery. **Figure 3(B)** presents the network of interventions. Compared with usual care, moderate-certainty evidence showed that wound infiltration corticosteroids (MD -0.31, 95% CI [-0.57, -0.05]) likely resulted in a slight reduction in pain intensity (**supplementary file, Table 3 and 19**). We did not find any evidence of incoherence in the network or closed loops of evidence (**supplementary file, Table 20**).

At 6 to 12 months follow-up, the NMA of pain intensity including 20 studies on knee replacement demonstrated that wound infiltration with corticosteroids provided statistically significant pain reduction compared to usual care (MD -0.31, 95% CI [-0.57, -0.05]) (supplementary file, Table 21). We did not find any evidence of incoherence in the network or closed loops of evidence (supplementary file, Table 22). However, for 4 studies on hip replacement, there was no statistically significant benefit of interventions compared to usual care and other pairwise comparisons (supplementary file, 23).

#### Physical functioning

Physical functioning was reported in 36 RCTs, with the network of interventions provided in **Figure 4**. Overall, the evidence ranging from very low to high certainty evidence suggests that most interventions provide little to no meaningful improvement in physical function compared to usual care when measured 6 to 18 months post-surgery. Low-certainty evidence suggests ketamine may provide a slight improvement in physical function (MD 10.77, 95% CI [5.21, 16.33]) compared to usual care. Compared to usual care, very low to low certainty evidence showed that nefopam (MD 6.04, 95% CI [0.08, 12.00]), and wound infiltration corticosteroids (MD 2.14, 95% CI [0.31, 3.98]) may result in little to no difference in physical function (**supplementary file, Table 3 and 24**). Network consistency assessment revealed no evidence of overall incoherence; however, the specific comparison of pregabalin versus usual care and pregabalin versus duloxetine demonstrated statistically significant inconsistency, suggesting conflicting results between direct and indirect evidence for this comparison (**supplementary file, Table 25**).

The NMA of physical functioning on knee replacement surgery (28 studies), showed that ketamine (MD 10.77, 95% CI [4.39, 17.15]) and wound infiltration corticosteroids (MD 2.44, 95% CI [0.09, 4.79]) provided statistically significant physical function improvement compared to usual care (supplementary file, Table 26). Network consistency assessment revealed no evidence of overall incoherence; however, the specific comparison of pregabalin versus usual care and pregabalin versus duloxetine demonstrated statistically significant inconsistency, suggesting conflicting results between direct and indirect evidence for this comparison (supplementary file, Table 27). In contrast, for hip replacement surgery (5 studies), no interventions demonstrated statistically significant benefits for physical function compared to usual care and other pairwise comparisons (supplementary file, Table 28).

#### Drop out and tolerability

All-cause drop out and tolerability (drop out due to adverse events) were reported in 56 and 48 RCTs, respectively. Networks of interventions for these outcomes are provided in Figures 5 and 6. Very low to moderate certainty evidence suggests interventions probably do not impact drop out and tolerability rates compared to usual care at 6 to 18 months after surgery (supplementary file, Tables 2, 29 and 34). The median rate of drop out and tolerability in usual care arm of included trials were 7.0% [IQR 0.5 to 24] and 6.8% [IQR 0.5 to 22], respectively. We did not find any evidence of incoherence in the network or closed loops of evidence (supplementary file, Tables 30 and 35).

The NMA of all-cause drop out and tolerability on knee replacement surgery trials, (43 RCTs for dropout and 38 for tolerability) separately showed no statistically significant

intervention harmful compared to usual care and other pairwise comparisons (supplementary file, Tables 31 and 36). We did not find any evidence of incoherence in the network or closed loops of evidence (supplementary file, Tables 32 and 37).

The NMA of all-cause drop out and tolerability on hip replacement surgery trials, (8 trials for dropout and 6 for tolerability) separately showed no statistically significant intervention benefit compared to usual care and other pairwise comparisons (supplementary file, Tables 33 and 38).

### Additional findings

Our network meta-regression did not show any evidence of effect modification for percentage of female participants, pain intensity before surgery, type of anesthesia (general vs other), and overall risk of bias (low vs high risk of bias). We planned to run subgroup analysis for veteran patients vs other, but we did not find any study that enrolled veteran population. We did not have enough studies reporting quality of life and emotional functioning to perform any statistical analysis.

## NMA models considering components of interventions / CNMA

We applied a random-effects CNMA model without any interaction terms. At the component level, we analyzed 20 components across 57 pharmacological interventions from trials involving knee or hip replacement surgeries. The usual care component ("uc") was treated as the inactive reference in all models. While intervention comparisons in the NMA format formed a connected network, decomposing interventions into components resulted in disconnected comparisons across all outcomes.

### Chronic post-surgical pain

The additive model results for CPSP at 3–6 months were based on 16 active components, representing all treatments plus usual care across 23 subnetworks, with moderate heterogeneity (I² = 34.1%). In the additive CNMA model, inclusion of the average effect of the steroid [iRR = 0.58, 95% CI [0.39, 0.86]; Table 4] component was associated with a reduced risk of CPSP across all combinations. No other individual components showed statistically significant effects on CPSP prevention. The components acetaminophen, epidural anesthesia, and tramadol were not individually identifiable, as they consistently appeared together in the same treatment arms.

For CPSP at 6–12 months, 14 active components plus usual care formed 13 subnetworks with no heterogeneity ( $I^2 = 0\%$ ). None of the individual components demonstrated statistically significant effects on CPSP prevention (**Table 4**). Acetaminophen, epinephrine, pregabalin, and tramadol were not individually identifiable, as they consistently appeared together in the same treatment arms.

#### Pain intensity

The additive model results for pain intensity at 3-6 were based on 17 active components and usual care across 26 subnetworks with substantial heterogeneity ( $I^2 = 54.1\%$ ). For pain intensity at 6-12 months, 15 active components plus usual care formed 16 subnetworks with no heterogeneity ( $I^2 = 0\%$ ). None of the individual components demonstrated statistically significant effects on pain intensity reduction at either time period (**Table 4**).

Certain component combinations were non-identifiable as they always appeared together: acetaminophen, epidural anesthesia and tramadol at 3-6 months, and acetaminophen, epidural anesthesia, epinephrine, pregabalin and tramadol at 6-12 months.

### Physical function

The additive CNMA model for physical function included 18 active components plus usual care across 31 unique study designs within 23 subnetworks, with moderate heterogeneity observed (I² = 31.9%). The inclusion of the average effect of the ketamine (iMD = 10.77, 95% CI [5.43; 16.11]), nefopam (iMD = 6.04, 95% CI [0.28; 11.80]), and steroid (iMD = 1.41, 95% CI [0.13; 2.70]; p = 0.031) components was associated with statistically significant improvements in physical function across all combinations. No other individual components demonstrated significant effects. The components acetaminophen, clonidine, epidural anesthesia, and tramadol were not individually identifiable, as they consistently appeared together in the same treatment arms and were modeled as a single combined component (Table 4).

#### *Drop out and tolerability*

The additive CNMA models for dropout outcomes included 20 active components from 74 to 79 treatment combinations involving usual care and formed 30 subnetworks with no heterogeneity ( $I^2 = 0\%$ ). None of the individual components demonstrated statistically significant effects on drop out outcomes (**Table 4**). The components acetaminophen, clonidine, epidural anesthesia, and tramadol were not individually identifiable as they consistently appeared together in the same treatment arms.

## Chapter 4. Discussion

We found low certainty evidence that epidural corticosteroid injection may reduce the proportion of patients with CPSP at 3 to 6 months after knee/hip replacement surgery compared to standard perioperative pain management. However, at longer follow-up periods (6 to 12 months), most interventions showed little to no difference in the proportion of patients with CPSP compared to standard care. Moderate certainty evidence suggests that wound infiltration with corticosteroids may be associated with a slight reduction in pain intensity at 6 to 12 months after surgery. For physical functioning, very low to low certainty evidence showed that adding ketamine, nefopam and wound infiltration corticosteroids compared to usual postoperative pain management may improve physical function. Separate analyses by surgery type revealed that most significant benefits were observed in knee replacement procedures, with epidural corticosteroids reducing CPSP and ketamine plus wound infiltration corticosteroids improving physical function. CNMA revealed that the steroid component was the key active ingredient associated with reduced CPSP risk at 3 to 6 months, while ketamine, nefopam, and steroid components were individually associated with improved physical function. None of the perioperative pharmacotherapies included in our review showed any important impact on overall drop out rate or treatment-related adverse effects resulting in study dropouts compared to standard pain management.

We used an explicit eligibility criteria limiting evidence to trials of knee and hip surgeries that reported pain at 3 months or longer and only conducting NMA when there was reasonable similarity across trials populations, co-interventions, and postoperative pain

management strategies. Our comprehensive searches identified more trials than all recent reviews on this topic (62-65). Further, we considered all patient-important outcomes, used innovative statistical method to transform continuous pain measurements to proportion of patients with CPSP, and used CINeMA assessment approach to rate the certainty of evidence.

The main limitation of our review is the small sample sizes in the majority of the included trials – more than half had fewer than 100 patients. Additionally, there are several patient-important outcomes that were reported by only a small number of trials (e.g., quality of life, emotional functioning) (65, 66) and are thus not informed by our review. Due to the limited number of studies reporting data for certain subgroups, we were unable to conduct some of our planned subgroup analyses. In disconnected networks, the additivity assumption underlying CNMA cannot be tested because no standard network meta-analysis model exists for comparison. Finally, a limitation was the non-identifiability of several components that consistently appeared together in the same treatment arms. For example, acetaminophen, epidural anesthesia, and tramadol frequently co-occurred, making it impossible to isolate their individual contributions to treatment effects.

Comparative effectiveness of pharmacological interventions to prevent CPSP has been investigated in two recent NMA and CNMA (62, 64) and two recent meta-analyses (28, 65); however, these evidence syntheses have reported inconsistent conclusions. Previous network meta-analyses combining multiple surgical procedures have suggested broader intervention effectiveness than our surgery-specific analysis. Allen et al (62) investigated the efficacy and tolerability of pharmacotherapies and nerve blocks, including 107 trials.

While they noted considerable variability in the baseline risk of developing CPSP in placebo arms of trial for different surgical procedures, effect estimates were pooled across all procedures. Authors reported two monotherapies – serotonin-norepinephrine antagonists and nerve blocks, along with combinations of nerve blocks with gabapentanoids or NMDA receptors antagonist were effective in reducing CPSP. Doleman et al (64) also performed NMA of non-opioid analgesics for the prevention of CPSP combing effect estimates across all surgical procedures among 132 trials. Authors found low certainty evidence that lidocaine, ketamine, and gabapentinoids could reduce CPSP within the first six months after surgery. Aside from combing all surgical procedures, both reviews decided to combine individual medications into drug class disregarding heterogeneity with drug classes such as gabapentinoids or antidepressants.

Conventional meta-analyses conducted by Carley et al (28) including 110 RCTs across surgical procedures reported possible benefits for pregabalin, lidocaine, and NSAID. However, the authors cautioned that these effects may be overestimated due to factors such as the small sample sizes of most RCTs, high rates of participant withdrawals, and the heterogeneity of interventions and patient populations across the studies. A more recent review by Laigaard et al (65), which included 49 trials, found that perioperative analgesic interventions may not have any effect on pain intensity at 3 to 24 months following total hip or knee arthroplasty.

### Implications for practice and direction for future research

Currently, low to moderate certainty evidence suggests that most perioperative pharmacotherapies may have little to no impact on proportion of patients with CPSP or

physical functioning compared to standard perioperative pain management. The main body of evidence is from small trials at high risk of bias, highlighting the need for future research to focus on rigorously conducted large, randomized trials and the identification of modifiable predictors of chronic pain after musculoskeletal and orthopedic surgeries. From a methodological perspective, future network meta-analyses should consider interaction models within the CNMA framework and compare them with additive models. Where feasible and guidelines exist, evaluating the certainty of evidence at the component level would provide more granular insights for clinical decision-making.

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Fig 1: Flow diagram for study selection

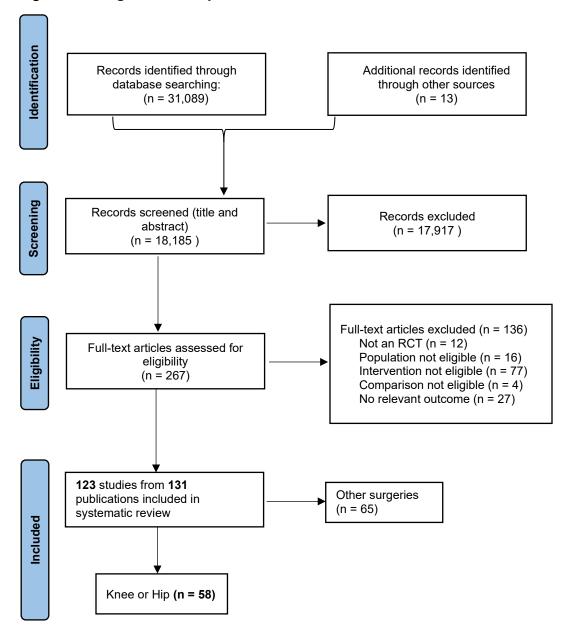


Fig 2. Network of comparisons for proportion of patients with CPSP at intervention level. at 3 to 6 months (A) and at 12 months (B). Each circle (node) represents an intervention. Solid lines indicate comparisons for which direct information was available. Abbreviations for interventions: Usual care (USUAL); Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); COOPW (Opioid (WI)+Corticosteroid (WI)); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB)

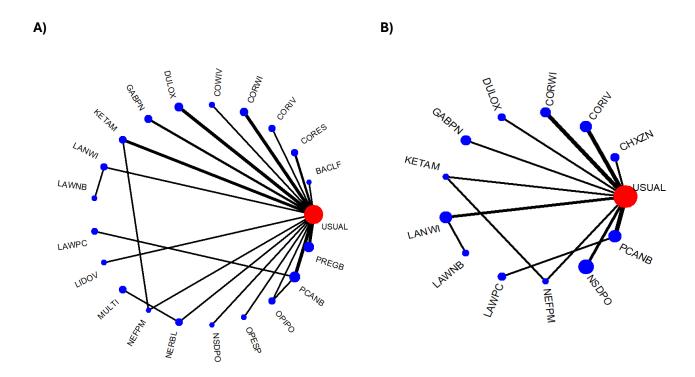
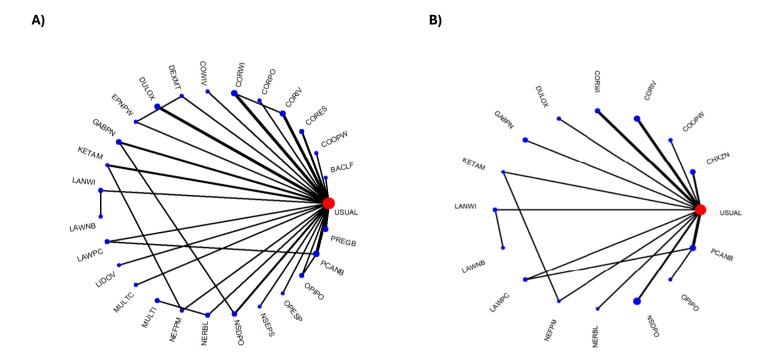


Fig 3: Network of comparisons for pain intensity at 3 to 6 months (A) and at 12 months (B). Each circle (node) represents an intervention. Solid lines indicate comparisons for which direct information was available. Abbreviations for interventions: Usual care (USUAL); Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); COOPW (Opioid (WI)+Corticosteroid (WI)); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB)



## Supplementary files

#### List of included studies

- 1. Akaravinek P, Kampitak W, Tanavalee A, et al. Effect of Adding Perineural Methylprednisolone to Peripheral Nerve Blocks Combined With Intravenous Dexamethasone for Prolonged Postdischarge Analgesia After Fast-track Total Knee Arthroplasty: A Randomized Controlled Trial. Clinical Journal of Pain, 2023; 39(4):180-7.
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Table 1: Description of interventions, comparisons, and co-interventions across included trials

Study	Co-interventions	Intervention	Comparison (s)	Pre-operative pain (10cm VAS)	Mean age	% Female
Knee Replacement Su	rgery					
Akaravinek 2023	NB, Corticosteroid (IV), LA (WI), Opioid, pregabalin, NSAID	Corticosteroid (ESP)	No Tx	5.9	62.4	89.8
Luo 2024	LA (WI), Opioid	Opioid (WI)+ Corticosteroid (WI)	No Tx	4.6	64.5	75.0
Rajani 2024	ACT, NSAID	Duloxetine	Placebo	6.2	71.3	50.9
Zhao 2023	LA (WI), Pregabalin, NSAID	Dexmedetomidine (WI)	Epinephrine (WI), No Tx	4.6	69.0	84.5
Wu 2023	LA (WI), epinephrine, Opioid, NSAID	Corticosteroid (periarticular+IV)	No Tx	5.3	64.5	72.4
Motififard 2023	PCA-Opioid, ACT	Gabapentin	NSAID, Placebo	0.8	60.5	48.8
Ho 2010	PCA-Opioid, ACT, NSAID, Tramadol	Duloxetine	Placebo		65.4	72.4
Mølgaard 2023	Opioid, ACT, NSAID, LA (WI)	Corticosteroid (IV)	Placebo		69.1	48.1
Reinhardt 2014	NSAID, ACT, Opioid	NB+Epidural Anesthetic	LA (WI)	6.4	67.3	58.5
Williams 2013	PCA-Opioid, ACT, NSAID, Gabapentin, Oral Opioid	PCA-LA (WI)	Placebo	5.6	66.5	60.0
Buvanendran 2010	Epidural Anesthetic, Opioid, NSAID	Pregabalin	Placebo		63.7	72.9
Chan 2020	LA (WI), NSAID (periarticular), PCA-Opioid, pregabalin, ACT	Corticosteroid (IV)	Placebo		75.5	74.5
Chan 2021	Corticosteroid (IV), LA (WI), NSAID (periarticular)	Corticosteroid (periarticular)	No Tx	7.1	65.0	69.6
Chan 2022	LA (WI), NSAID (periarticular)	Corticosteroid (periarticular)	No Tx	6.2	66.0	68.9
Cheng 2019	PCA-Opioid, ACT, NSAID, gabapentin	Corticosteroid (IV)	No Tx		67.4	73.3
Cheng 2021	Tramadol, NSAID	Corticosteroid (PO)	No Tx	4.9	64.3	80.0

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Study	Co-interventions	Intervention	Comparison (s)	Pre-operative pain (10cm VAS)	Mean age	% Female
Christensen 2009	LA (WI), Opioid (WI), Clonidine (WI)	Corticosteroid (periarticular)	No Tx		65.5	69.7
Clarke 2014	PCA-Opioid, NSAID, Opioid	Gabapentin	Placebo	4.9	62.9	50.3
Essving 2011	PCA-Opioid, Tramadol	Intrathecal Opioid	LA (WI)+NSAID (WI)+Epinephrine(WI)		71.0	62.0
Feng 2021	PCA-Opioid	Meloxicam	Placebo		66.7	68.0
Fenten 2018	epinephrine, ACT, NSAID, gabapentin	LA (WI)+NB	LA (WI)	4.3	65.0	53.8
Ilfeld 2009	Oral Opioid, ACT, NSAID	PCA-NB	Sham	4.7		
Ilfeld 2011	Usual care	PCA-NB	Sham	5.4		
Imani 2023	Usual care	Pregabalin	Duloxetine, Placebo		66.6	93.3
Petersen 2018	Usual care	Gabapentin	Placebo	2.3	67.2	44.6
Koh 2019	Usual care	Duloxetine	No Tx		68.9	86.3
Aveline 2014	PCA-Opioid, ACT, NSAID	Ketamine	Nefopam, Placebo	1.9	71.0	63.8
Kwon 2014	LA (WI), NSAID (periarticular), epinephrine (periarticular)	Corticosteroid (WI)	No Tx	1.8	69.3	100.0
Peng 2014	Usual care	PCA-NB	Oral Opioid	4.7	67.4	45.1
Lutzner 2020	Oral Opioid	PCA-NB	PCA-LA (WI)	5.1	68.3	53.2
Meunier 2007	ACT, Tramadol	Oral NSAID	Placebo	5.5	68.5	56.0
YaDeau 2015	PCA-Epidural, Opioid, NSAID, ACT	Pregabalin	Placebo	4.8	66.5	57.0
Nader 2012	Epidural Anesthetic	PCA-NB	Oral Opioid		64.5	68.0
Pang 2008	LA (WI), epinephrine	Corticosteroid (WI)	No Tx	4.3	67.5	82.2
Perrin 2009	ACT, Opioid	Ketamine	Placebo	4.2	62.5	41.7
Sanders 2009	ACT, Opioid, Epidural Anesthetic	Intrathecal Baclofen	Placebo		62.7	
Tammachote 2018	epinephrine, Epidural Anesthetic	Corticosteroid (ESP)	Placebo	2.6	68.5	80.5

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Study	Co-interventions	Intervention	Comparison (s)	Pre-operative pain (10cm VAS)	Mean age	% Female
Wang 2023	NB, Pregabalin, Oral NSAID, epinephrine	Oral Opioid	Placebo	4.6	65.0	34.0
Widmer 2012	LA (WI)	NB	Placebo	3.4	70.2	44.4
Singla 2015	NB, Opioid, ACT	Pregabalin	Placebo		63.3	59.9
Kitcharanant 2024	ACT, Oral NSAID, Opioid	DEXAMETHASOME(IV)	Placebo	4.6	65.7	95.8
Li 2024	LAWI, NSAID (WI), Oral NSAID, Tramadol	DEXAMETHASOME(IV)	DEXAMETHASOME( WI)	2.66	70.1	86.4
Pinsornsak 2024	LAWI, NSAID (WI), Opioid, Oral NSAID, ACT, Tramadol	Duloxetine	Placebo	6.0	53.9	68.2
YaDeau 2024	Corticosteroid (IV), Oral NSAID, ACT, Duloxetine, Opioid	(WI) Epi+Opioid+LA+Corticost eroid	Placebo		66	85.7
Yin 2024	Opioid, Oral NSAID, ACT	NB	Placebo	2.25	66.5	46.0
Hip Replacement Su	rgery					
Bergeron 2009	PCA-Opioid, ACT, NSAID	Corticosteroid (IV)	Placebo	3.5		
Clarke 2015	PCA-Opioid, NSAID, Opioid	Pregabalin	Placebo	4.8	60.2	49.4
Clarke 2009	PCA-Opioid	Gabapentin	Placebo		60.2	38.5
Martin 2008	PCA-Opioid, ACT, NSAID	Lidocaine (IV)	Placebo	6.6	63.0	60.3
Ilfeld 2009	Oral Opioid, ACT, NSAID	PCA-NB	Sham	5.9		
Johnson 2017	epinephrineOpioid, ACT, ketamine, NSAID	NB	Epi+NSAID+LA (WI)		61.1	50.3
Remerand 2009	IV NSAID, Opioid	Ketamine	Placebo		64.5	50.6
Wang 2014	ACT, Opioid, Spinal Anesthetic	Intrathecal NSAID	Placebo	3.8		
Fransen 2006	Usual care	Oral NSAID	No Tx	5.6	66.5	45.5
Knee/Hip Replaceme	ent Surgery					
Skrejborg 2020	Usual care	Chlorzoxazone	Placebo	4.0	68.4	46.0
Rienstra 2021	Usual care	Duloxetine	Placebo	6.9	62.7	62.2
Foadi 2017	Spinal Anesthetic, metamizole	Placebo	Intrathecal Opioid	2.5	66.2	65.3
Wylde 2015	Usual care	LA (WI)	No Tx		67.6	55.8
	•					

Table 2: Network Meta-Analysis Results Sorted Based on CINeMA Certainty of Evidence and Effect Estimate for Comparisons of Active Treatments vs Usual care for binary outcomes (CPSP and Drop out)

Outcomes	Certainty of Evidence	Classification	Comparison	RR (95% CI)	Total RD (95% CI)	Only Knee RD (95% CI)	Only Hip RD (95% CI)
			Lidocaine (IV)	0.07 (0.00, 1.30)	16.7% (-5.4, 18)	-	26% (-5.3, 28)
			Oral NSAID	0.12 (0.01, 2.37)	15.8% (-24.7, 17.8)	14.1% (-24.2, 15.8)	-
	High	Among the least	PCA-LAWI	0.42 (0.11, 1.61)	10.4% (-11, 16)	9% (-16, 14.6)	-
	(moderate to	effective	Corticosteroid (WI)	0.54 (0.23, 1.28)	8.3% (-5, 13.9)	7.4% (-5.6, 12.6)	-
	high)		Ketamine	0.61 (0.33, 1.15)	7% (-2.7, 12.1)	7.4% (-7.2, 12.8)	8.7% (-4.8, 16.5)
			Oral Opioid	0.73 (0.24, 2.16)	4.9% (-20.9, 13.7)	-	26% (-5.3, 28)
		May be among the intermediate	Corticosteroid (ESP)	0.35 (0.14, 0.90)	11.7% (1.8, 15.5)	10.6% (0.2, 14.1)	-
			NB	0.24 (0.03, 2.36)	13.7% (-24.5, 17.5)	12.2% (-24.5, 15.7)	-
CPSP			Baclofen (ESP)	0.43 (0.08, 2.37)	10.3% (-24.7, 16.6)	9.1% (-25.6, 14.9)	-
(3 to 6			Corticosteroid (IV)	0.49 (0.17, 1.42)	9.2% (-7.6, 14.9)	8.2% (-10.4, 13.6)	-
months)			PCA-NB	0.56 (0.26, 1.23)	7.9% (-4.1, 13.3)	6.6% (-6.7, 12)	17.9% (-197.7, 27.4)
			Epi + NSAID + LA (WI)	0.59 (0.01,27.20)	7.4% (-111.6, 17.8)	-	-
	Low	May be among	Nefopam	0.61 (0.20, 1.84)	7% (-15.1, 14.4)	6.6% (-16.8, 13.3)	-
	(low to very	the least	Duloxetine	0.64 (0.35, 1.18)	6.5% (-3.2, 11.7)	9.3% (-0.3, 13.3)	-
	low)	effective	Pregabalin	0.71 (0.34, 1.48)	5.2% (-8.6, 11.9)	5.1% (-9, 11.4)	-
			Corticosteroid (IV + WI)	0.84 (0.32, 2.18)	2.9% (-21.2, 12.2)	2.6% (-25, 11.7)	-
			Opioid (EPS)	0.88 (0.42, 1.86)	2.2% (-15.5, 10.4)	-	-
			LAWI	0.93 (0.27, 3.21)	1.3% (-39.8, 13.1)	1.1% (-42.4, 12.2)	-
			Gabapentin	1.03 (0.52, 2.06)	-0.5% (-19.1, 8.6)	0.6% (-34.9, 11.4)	-2.5% (-27.4, 11.2)
			LAWI + NB	1.08 (0.21, 5.62)	-1.4% (-83.2, 14.2)	-1.3% (-92.8, 13.3)	-
	High	Among the least	Corticosteroid (WI)	0.55 (0.21,1.46)	4.1% (-4.1, 7.1)	3.6% (4.4, 6.4)	-
	(moderate to high)	effective	PCA-LAWI	1.20 (0.33,4.37)	-1.8% (-30.3, 6)	-1.8% (-28.4, 5.4)	-
CDCD			Ketamine	0.48 (0.14,1.69)	4.7% (-6.2, 7.7)	4.2% (-5.6, 7)	-
CPSP			Nefopam	0.52 (0.15,1.84)	4.3% (-7.6, 7.7)	3.9% (-6.8, 6.9)	-
(6 to 12	Low	May be among	LAWI	0.88 (0.74,1.06)	1.1% (-0.5, 2.3)	2.2% (-11.4, 6.3)	-
months)	(low to very	the least	Duloxetine	0.89 (0.50,1.58)	1% (-5.2, 4.5)	-	-
	low)	effective	Corticosteroid (IV)	0.95 (0.74,1.23)	0.5% (-2.1, 2.3)	2.8% (-1.7, 5.2)	-0.2% (-2.3, 1.4)
			Chlorzoxazone	0.97 (0.29,3.21)	0.3% (-19.9, 6.4)	0.2% (-17.9, 5.8)	-
			PCA-NB	1.17 (0.58,2.36)	-1.5% (-12.2, 3.8)	-1.5% (-11.8, 3.5)	0.4% (-80.8, 5.9)

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Outcomes	Certainty of Evidence	Classification	Comparison	RR (95% CI)	Total RD (95% CI)	Only Knee RD (95% CI)	Only Hip RD (95% CI)	
			Gabapentin	1.45 (0.48,4.33)	-4.1% (-30, 4.7)	-3.6% (-27, 4.2)	-	
			Oral NSAID	1.51 (0.96,2.38)	-4.6% (-12.4, 0.4)	6.7% (-18.5, 8)	-3.7% (-9.6, 0)	
			LAWI + NB	1.82 (0.35,9.40)	-7.4% (-75.6, 5.9)	-4% (-83.6, 6.5)	-	
			Epinephrine (WI)	0.14 (0.01, 2.68)	6% (-11.8, 6.9)	4.8% (-9.4, 5.5)	-	
	High	Not more	Epi + NSAID + LA (WI)	0.31 (0.07, 1.44)	4.8% (-3.1, 6.5)	-	-	
	(moderate to	harmful than	Dexmedetomidine (WI)	0.43 (0.07, 2.76)	4% (-12.3, 6.5)	3.2% (-9.9, 5.2)	-	
	high)	usual care	LAWI + NB	0.92 (0.20, 4.19)	0.6% (-22.3, 5.6)	-1.1% (-34, 4.5)	-	
			Ketamine	1.30 (0.47, 3.62)	-2.1% (-18.3, 3.7)	-0.8% (-90.3, 5.2)	-9.2% (-84.3, 15.7)	
			Baclofen (ESP)	0.33 (0.04, 3.03)				
			Corticosteroid (IV + WI)	ESP) 0.33 (0.04, 3.03) 4.7% (-14.2, 6.7) 3.8% (-11.4, 5.4) (IV + WI) 0.50 (0.05, 5.32) 3.5% (-30.2, 6.7) 2.8% (-24.2, 5.3) 2cone 0.72 (0.30, 1.76) 2% (-5.3, 4.9) 1.6% (-4.3, 3.9) 0.79 (0.26, 2.46) 1.5% (-10.2, 5.2) 1% (-9.5, 4.2) B 0.84 (0.65, 1.09) 1.1% (-0.6, 2.5) 1% (-0.5, 2) 1.1 oid 0.89 (0.09, 8.40) 0.8% (-51.8, 6.4) 0.6% (-41, 5.1)	-			
			Chlorzoxazone	0.72 (0.30, 1.76)	2% (-5.3, 4.9)	1.6% (-4.3, 3.9)	-	
			NB	0.79 (0.26, 2.46)	1.5% (-10.2, 5.2)	1% (-9.5, 4.2)	-	
			PCA-NB	0.84 (0.65, 1.09)	1.1% (-0.6, 2.5)	1% (-0.5, 2)	1.1% (-36.7, 16.8)	
			Oral Opioid	Ketamine         1.30 (0.47, 3.62)         -2.1% (-18.3, 3.7)         -0.8% (-90.3, 5.2)           Baclofen (ESP)         0.33 (0.04, 3.03)         4.7% (-14.2, 6.7)         3.8% (-11.4, 5.4)           dicosteroid (IV + WI)         0.50 (0.05, 5.32)         3.5% (-30.2, 6.7)         2.8% (-24.2, 5.3)           Chlorzoxazone         0.72 (0.30, 1.76)         2% (-5.3, 4.9)         1.6% (-4.3, 3.9)           NB         0.79 (0.26, 2.46)         1.5% (-10.2, 5.2)         1% (-9.5, 4.2)           PCA-NB         0.84 (0.65, 1.09)         1.1% (-0.6, 2.5)         1% (-0.5, 2)           Oral Opioid         0.89 (0.09, 8.40)         0.8% (-51.8, 6.4)         0.6% (-41, 5.1)           Orticosteroid (IV)         0.93 (0.82, 1.06)         0.5% (-0.4, 1.3)         0.3% (-0.4, 1)           Orticosteroid (WI)         0.96 (0.48, 1.90)         0.3% (-6.3, 3.6)         0.2% (-5.1, 2.9)           Pregabalin         0.97 (0.74, 1.29)         0.2% (-2, 1.8)         -1.1% (-3.8, 0.9)           Opioid (WI) + Orticosteroid (WI)         0.00 (0.02,49.43)         0% (-339, 6.9)         0% (-271.2, 5.5)           Oral Steroid         1.04 (0.79, 1.37)         -0.3% (-2.6, 1.5)         -0.1% (-2.2, 1.5)           Orticosteroid (ESP)         1.12 (0.41, 3.07)         -0.8% (-14.5, 4.1)         -0.7% (-11.6, 3.3)	0.6% (-41, 5.1)	-		
			Corticosteroid (IV)	0.93 (0.82, 1.06)	0.5% (-0.4, 1.3)	0.3% (-0.4, 1)	7.6% (-14, 18.2)	
All-cuase			Corticosteroid (WI)	0.96 (0.48, 1.90)	0.3% (-6.3, 3.6)	0.2% (-5.1, 2.9)	-	
			Pregabalin	0.97 (0.74, 1.29)	0.2% (-2, 1.8)	-1.1% (-3.8, 0.9)	8.7% (-2.5, 16)	
dropout (latest follow- up)	Low	May be not be	Opioid (WI) + Corticosteroid (WI)	1.00 (0.02,49.43)	0% (-339, 6.9)	0% (-271.2, 5.5)	-	
αρ)	Low (low to very	May be not be more harmful	Oral Steroid	1.00 (0.06,15.55)	0% (-101.9, 6.6)	0% (-81.5, 5.3)	-	
	low)	than usual care	Gabapentin	1.04 (0.79, 1.37)	-0.3% (-2.6, 1.5)	-0.1% (-2.2, 1.5)	-2% (-22.1, 10.1)	
	1000)	tilali usual care	Corticosteroid (ESP)	1.12 (0.41, 3.07)	-0.8% (-14.5, 4.1)	-0.7% (-11.6, 3.3)	-	
			Oral NSAID	1.13 (0.93, 1.37)	-0.9% (-2.6, 0.5)	2.2% (-0.6, 3.8)	-5.9% (-13.7, 0.3)	
			LAWI	1.22 (0.74, 2.02)	-1.5% (-7.1, 1.8)	-3.4% (-19.9, 2.5)	-	
			Opioid (EPS)	1.27 (0.31, 5.15)	-1.9% (-29.1, 4.8)	-	-	
			PCA-LAWI	1.64 (0.81, 3.32)	-4.5% (-16.2, 1.3)	-3.6% (-13, 1.1)	-	
			(WI) Epi + Opioid + LA + Corticosteroid	1.67 (0.66, 4.22)	-4.7% (-22.5, 2.4)	-3.8% (-18, 1.9)	-	
			Duloxetine	1.93 (0.87, 4.27)	-6.5% (-22.9, 0.9)	-0.9% (-13.1, 3.4)	-	
			Lidocaine(IV)	5.00 (0.25,99.89)	-28% (-692.2, 5.3)	-	-112% (-2768.9, 21)	
			Nefopam	1.22 (0.04,36.32)	-1.5% (-247.2, 6.7)	-0.8% (-233.2, 5.4)	-	
			NSAID(EPS)	5.18 (0.64,41.59)	-29.3% (-284.1, 2.5)	-	-117% (-1136.5, 10.1)	
			Ketamine	0.51 (0.13,2.02)	3.4% (-7.1, 6.1)	-1.1% (-112.8, 6.4)	4.3% (-6.3, 6.4)	

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Outcomes	Certainty of Evidence	Classification	Comparison	RR (95% CI)	Total RD (95% CI)	Only Knee RD (95% CI)	Only Hip RD (95% CI)			
	High	Not more								
	(moderate to	harmful than	Corticosteroid (WI)	1.08 (0.43,2.70)	-0.6% (-11.9, 4)	-0.6% (-11.9, 4)	-			
	high)	usual care								
			Corticosteroid (ESP)	0.37 (0.03,3.96)	4.4% (-20.7, 6.8)	4.4% (-20.7, 6.8)	-			
			Epi + NSAID + LA (WI)	0.50 (0.00,59.75)	3.5% (-411.3, 7)	-	-			
			Nefopam	0.76 (0.02,23.42)	1.7% (-156.9, 6.9)	-1% (-291.5, 6.8)	-			
			Corticosteroid (IV)	0.82 (0.08,7.91)	1.3% (-48.4, 6.4)	1.3% (-48.4, 6.4)	-			
			LAWI	0.97 (0.24,3.97)	7 (0.24,3.97) 0.2% (-20.8, 5.3) 2.3% (-19.7, 6.2)					
			LAWI + NB	0.97 (0.04, 21.06)	4, 21.06) 0.2% (-140.4, 6.7) 2.3% (-113, 6.8)		-			
			Chlorzoxazone	0.99 (0.02,49.89)		0.1% (-342.2, 6.9)	-			
	Drop out due to adverse more had	May not be more harmful than usual care	more harmful	Opioid (WI) + Corticosteroid (WI)	1.00 (0.02,49.43)	0% (-339, 6.9)	0% (-339, 6.9)	-		
Drop out due				(WI) Epi + Opioid + LA + Corticosteroid	1.00 (0.02,49.37)	0% (-338.6, 6.9)	0% (-338.6, 6.9)	-		
			NB	1.00 (0.06,15.68)	0% (-102.8, 6.6)	0% (-102.8, 6.6)	-			
event	Low					Oral Opioid	1.00 (0.04,24.16)	0% (-162.1, 6.7)	0% (-162.1, 6.7)	-
(latest follow	(low to very					PCA-NB	1.00 (0.04,24.29)	0% (-163, 6.7)	0% (-163, 6.7)	-
up)	low)			Oral Steroid	1.00 (0.02,49.43)	0% (-339, 6.9)	0% (-339, 6.9)	-		
			Corticosteroid (IV + WI)	1.00 (0.02,49.32)	0% (-338.2, 6.9)	0% (-338.2, 6.9)	-			
			Dexmedetomidine (WI)	1.00 (0.02,49.19)	0% (-337.3, 6.9)	0% (-337.3, 6.9)	-			
			PCA-LAWI	1.01 (0.01,157.16)	-0.1% (-1093.1, 6.9)	-0.1% (-1093.1, 6.9)	-			
			NSAID(EPS)	1.04 (0.02,50.42)	-0.3% (-345.9, 6.9)	-	-0.3% (-345.9, 6.9)			
			Pregabalin	1.04 (0.60,1.79)	-0.3% (-5.5, 2.8)	-0.3% (-5.5, 2.8)	3.1% (-4.1, 5.7)			
			Epinephrine (WI)	1.00 (0.02,49.19)	0% (-337.3, 6.9)	0% (-337.3, 6.9)	-			
			Gabapentin	1.22 (0.29,5.22)	-1.5% (-29.5, 5)	-2.5% (-39.3, 5)	3.5% (-167.4, 6.9)			
			Oral NSAID	1.36 (0.91,2.01)	-2.5% (-7.1, 0.6)	0.1% (-52.7, 6.2)	-2.6% (-7.4, 0.6)			
			Duloxetine	2.42 (0.51,11.51)	-9.9% (-73.6, 3.4)	-0.3% (-40.2, 5.9)	-			
			Opioid (EPS)	2.51 (0.01, 703.42)	-10.6% (-4916.9, 6.9)	-	-			
			Baclofen (ESP)	3.00 (0.13,70.78)	-14% (-488.5, 6.1)	-14% (-488.5, 6.1) -14% (-488.5, 6.1)				
			Lidocaine(IV)	5.00 (0.25,99.89)	-28% (-692.2, 5.3)	-	-28% (-692.2, 5.3)			

Numeric in bold represent statistically significant results. RR = Risk Ratio; RD = Risk difference; CINeMA = Confidence in Network Meta-Analysis; \* CPSP = Chronic post surgical pain; ESP: Epidural/Spinal/Perineural; IV: intravenous; LA: local anesthetic; NB: nerve block; PCA: Patient-controlled analgesia; PO: oral; WI: wound infiltration.

Table 3: Network Meta-Analysis Results Sorted Based on CINeMA Certainty of Evidence and Effect Estimate for Comparisons of Active Treatments vs Usual care for Pain intensity and Physical Function

Outcomes	Certainty of Evidence	Classification	Comparison	MD (95% CI)
			Lidocaine (IV)	-0.90 (-2.06,0.26)
			Corticosteroid (IV)	-0.17 (-0.53,0.20)
			Corticosteroid (WI)	-0.15 (-0.49,0.20)
	High	Among the least effective	Corticosteroid (IV + WI)	-0.12 (-0.88,0.64)
	(moderate to high)	Among the least effective	Oral Steroid	-0.10 (-0.80,0.60)
			Gabapentin	-0.02 (-0.51,0.48)
			Dexmedetomidine (WI)	0.10 (-0.59,0.79)
		LAV		0.47 (-0.97,1.91)
			Baclofen (ESP)	-1.10 (-2.31,0.11)
			Opioid (EPS)	-0.51 (-2.03,1.00)
			Nefopam	-0.41 (-1.33,0.50)
			Duloxetine	-0.40 (-0.86,0.06)
pain intensity 3-6			Ketamine	-0.37 (-1.15,0.41)
pain interisity 5 6			PCA-LAWI	-0.34 (-0.96,0.28)
			NB	-0.33 (-1.32,0.66)
			PCA-NB NSAID(EPS)	-0.24 (-0.64,0.15)
	Low	May be among the least effective	-0.20 (-1.22,0.82)	
	(low to very low)	may be among the least effective	Oral NSAID	-0.16 (-0.70,0.37)
			Opioid (WI) + Corticosteroid (WI)	-0.10 (-0.78,0.58)
			Epinephrine (WI)	-0.10 (-0.81,0.61)
			Pregabalin	-0.08 (-0.70,0.54)
			LAWI	0.07 (-0.91,1.05)
			Oral Opioid	0.10 (-0.56,0.75)
			(WI) Epi + Opioid + LA + Corticosteroid	0.18 (-0.59,0.95)
			Corticosteroid (ESP)	0.19 (-0.41,0.79)
			Epi + NSAID + LA (WI)	0.34 (-0.88,1.55)
		Among the most effective	Corticosteroid (WI)	-0.31 (-0.57, -0.05)
pain intensity 6-12	High		Chlorzoxazone	-0.04 (-0.34, 0.26)
	(moderate to high)	Among the least effective	Corticosteroid (IV)	-0.03 (-0.14, 0.08)
			PCA-LAWI	-0.01 (-0.45, 0.43)

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		PCA-NB	0.04 (-0.28, 0.35)			
		Oral Opioid	0.04 (-0.66, 0.74)			
		Oral NSAID	0.15 (-0.09, 0.39)			
		LAWI + NB	0.15 (-1.09, 1.39)			
		NB	0.30 (-0.18, 0.78)			
		Ketamine	-0.50 (-1.15, 0.15)			
		Nefopam	0.04 (-0.66, 0.74) 0.1D			
Low	May be among the least effective	LAWI	-0.25 (-1.13, 0.63)			
(low to very low)	iviay be among the least effective	Opioid (WI) + Corticosteroid (WI)	-0.24 (-0.53, 0.05)			
		Duloxetine	0.04 (-4.34, 4.42)			
		Gabapentin				
		Epi + NSAID + LA (WI)	5.86 ( -0.79, 12.51)			
		LAWI + NB				
		Corticosteroid (IV)	0.85 ( -2.00, 3.70)			
Lligh		0.60 ( -2.33, 3.53)				
	Among the least effective	Opioid (WI) + Corticosteroid (WI)	0.32 ( -2.69, 3.33)			
(moderate to mgm)		PCA-NB	0.23 ( -2.34, 2.80)			
		Epinephrine (WI)	-0.30 ( -3.22, 2.62)			
		Gabapentin	-1.40 ( -3.88, 1.07)			
		Ketamine	10.77 (5.21, 16.33)			
	May be among the intermediate	Nefopam	6.04 ( 0.08, 12.00)			
		Corticosteroid (WI)	2.14 ( 0.31, 3.98)			
		NB	4.68 ( -0.78, 10.14)			
Low		Opioid (EPS)	2.83 ( -5.84, 11.49)			
(low to very low)		LAWI Opioid (WI) + Corticosteroid (WI) Duloxetine Gabapentin Epi + NSAID + LA (WI) Duloxetine Corticosteroid (IV) Dexmedetomidine (WI) Opioid (WI) + Corticosteroid (WI) PCA-NB Oral NSAID Epinephrine (WI) Gabapentin Oral NSAID Epinephrine (WI) Oral NSAID Epinephrine (WI) Oral NSAID Corticosteroid (WI) Oral NSAID Oral NSAID Epinephrine (WI) Oral NSAID				
	NA . I I . I	Corticosteroid (ESP)	Oral Opioid Oral NSAID Oral NSAID LAWI + NB NB NB O.30 (-0.18, 0.78)  Ketamine -0.50 (-1.15, 0.15) Nefopam LAWI Corticosteroid (WI) Duloxetine Ond (-0.46, 0.71) Duloxetine Oral NSAID Oral			
	iviay be among the least effective	Pregabalin	0.04 ( -2.77, 2.84)			
		(WI) Epi + Opioid + LA + Corticosteroid	0.00 ( -5.93, 5.93)			
		Chlorzoxazone	-1.50 ( -8.09, 5.09)			
		LAWI				
	(low to very low)  High (moderate to high)	High (moderate to high)  Among the least effective  May be among the least effective  May be among the least effective	Oral Opioid Oral NSAID LAWI + NB NB  Ketamine Nefopam LAWI Opioid (WI) + Corticosteroid (WI) Duloxetine Gabapentin  Epi + NSAID + LA (WI) Duloxetine Corticosteroid (IV) Dexmedetomidine (WI) Opioid (WI) + Corticosteroid (WI) Duloxetine Gabapentin  Epi + NSAID + LA (WI) Duloxetine Corticosteroid (IV) Dexmedetomidine (WI) Opioid (WI) + Corticosteroid (WI) PCA-NB Oral NSAID Epinephrine (WI) Gabapentin  Ketamine Nefopam Corticosteroid (WI) NB Opioid (EPS) PCA-LAWI Corticosteroid (ESP) Pregabalin (WI) Epi + Opioid + LA + Corticosteroid Chlorzoxazone			

Numeric in bold represent statistically significant results. MD = mean difference; MID = minimally important difference; CINeMA = Confidence in Network Meta-Analysis; \* Pain relief is measured using a VAS; scores range from 0 to 10 cm, lower is better (the MID is 1 cm). † Physical function is measured by using component summary score (PCS). Scores range from 0 to 100 cm; higher is better (the MID is 10 cm).

Table 4: Incremental risk ratios for individual components for all the Outcomes at 3 to 6 months

		СР	SP			Pain in	tensity		Physical fu	nction	Dropo	ut	Tolerability	
Component	3-6 mor	nths	6-12 mo	nths	3-6 mor	nths	6-12 mo	nths	Latest follo	ow-up	Latest foll	ow-up	Latest foll	ow-up
	iRR	P-value	iRR	P-value	iMD	P-value	iRR	P-value	iMD	P-value	iRR	P-value	iRR	P-value
Baclofen	0.43 (0.09, 2.14)	0.303	-	-	-1.10 (-2.26,0.06)	0.063	-	•	-	-	0.33 (0.04, 3.03)	0.329	3.00 (0.13,70.78)	0.496
Chlorzoxazone	-	-	0.97 (0.29, 3.21)	0.954	-	-	-0.04 (-0.34,0.26)	0.803	-1.50 (-8.00, 5.00)	0.651	0.72 (0.30, 1.76)	0.476	0.99 (0.02,49.89)	0.998
Dexmedetomidine	-	-	-	-	0.25 (-0.30,0.80)	0.369	-	-	0.68 (-1.75, 3.11)	0.582	0.50 (0.08, 3.16)	0.465	0.69 (0.02,23.45)	0.835
Duloxetine	0.70 (0.42, 1.16)	0.167	0.89 (0.50,1.58)	0.694	-0.39 (-0.79,0.02)	0.064	0.04 (-4.34,4.42)	0.986	2.17 (-0.31, 4.65)	0.086	1.93 (0.87, 4.27)	0.106	2.42 (0.51,11.51)	0.265
Epinephrine	2.88 (0.13, 66.48)	0.508	-	-	0.23 (-0.21,0.67)	0.308	-	-	-0.14 (-2.37, 2.08)	0.9	0.58 (0.26, 1.31)	0.189	0.47 (0.06, 3.74)	0.478
Gabapentin	1.04 (0.59, 1.81)	0.903	1.45 (0.48,4.33)	0.507	0.01 (-0.39,0.42)	0.944	0.13 (-0.46,0.71)	0.674	-1.50 (-3.68, 0.69)	0.18	1.04 (0.79, 1.37)	0.763	1.22 (0.29, 5.21)	0.789
Ketamine	0.62 (0.36, 1.06)	0.069	0.48 (0.14,1.69)	0.253	-0.40 (-1.12,0.33)	0.282	-0.50 (-1.15,0.15)	0.13	10.77 (5.43,16.11)	< 0.001	1.30 (0.47, 3.62)	0.613	0.51 (0.13, 2.02)	0.336
LAWI	0.80 (0.35, 1.79)	0.571	0.89 (0.75,1.06)	0.205	-0.03 (-0.44,0.39)	0.906	0.04 (-0.36,0.43)	0.858	1.20 (-1.80, 4.21)	0.433	1.39 (0.93, 2.08)	0.113	0.89 (0.25, 3.22)	0.858
Lidocaine	0.07 (0.00, 1.25)	0.069	-	-	-0.90 (-2.00,0.20)	0.108	-	-	-	-	5.00 (0.25,99.89)	0.292	5.00 (0.25,99.89)	0.292
Meloxicam	-	-	-	-	-	-	-	-	1.56 (-3.09, 6.20)	0.511	0.69 (0.33, 1.44)	0.326	0.97 (0.02,48.12)	0.988
NB	0.95 (0.53, 1.72)	0.891	1.18 (0.57,2.44)	0.654	-0.13 (-0.46,0.20)	0.445	0.21 (-0.11,0.52)	0.202	0.38 (-2.44, 3.20)	0.791	0.89 (0.66, 1.21)	0.476	0.97 (0.20, 4.55)	0.964
Nefopam	0.61 (0.22, 1.67)	0.32	0.52 (0.15,1.84)	0.312	-0.43 (-1.28,0.42)	0.323	-0.37 (-1.07,0.33)	0.305	6.04 (0.28,11.80)	0.04	1.22 (0.04,36.32)	0.91	0.76 (0.02,23.42)	0.875
NSAID	3.53 (0.91,13.66)	0.068	1.51 (0.96,2.38)	0.077	-0.03 (-0.39,0.34)	0.888	0.14 (-0.09,0.37)	0.221	-0.35 (-2.06, 1.35)	0.687	1.18 (0.97, 1.44)	0.1	1.33 (0.90, 1.97)	0.154
Opioid	1.35 (0.53, 3.47)	0.528	0.76 (0.22,2.65)	0.671	0.40 (-0.07,0.87)	0.098	0.17 (-0.32,0.67)	0.492	-1.62 (-6.26, 3.01)	0.493	0.99 (0.57, 1.72)	0.969	0.91 (0.08,11.01)	0.942
Pregabalin	0.77 (0.42, 1.41)	0.393	-	-	-0.07 (-0.62,0.48)	0.811	-	-	0.00 (-2.58, 2.58)	0.999	0.97 (0.74, 1.29)	0.849	1.04 (0.60, 1.79)	0.891
Steroid	0.58 (0.39, 0.86)	0.007	0.92 (0.72,1.17)	0.509	-0.07 (-0.25,0.11)	0.464	-0.10 (-0.19,0.00)	0.054	1.41 (0.13, 2.70)	0.031	0.94 (0.83, 1.06)	0.298	0.93 (0.43, 2.00)	0.843

Numeric in bold represent statistically significant results. iMD = Incremental mean difference; iRR = Incremental risl ratio; NB = Nerve Block

Table 5: Summary of risk of bias for included trials in the network meta-analysis of interventions

Study (Year)	Randomization Process	Deviations from intended interventions	Missing outcome data	Measurment of the outcome	Selection of the reported result	Overall
Akaravinek, 2023	Low	Low	Low	Low	Some concerns	Some concerns
Aveline, 2014	Low	Some concerns	Low	Low	High	High
Bergeron, 2009	Some concerns	High	High	Low	Some concerns	High
Buvanendran, 2010	Some concerns	Low	Low	Low	Low	Some concerns
Chan, 2020	Low	Low	Low	Low	Low	Low
Chan, 2021	Low	Low	Low	Low	Low	Low
Chan, 2022	Low	Low	Low	Low	Some concerns	Some concerns
Cheng, 2019	Low	Low	Low	Low	Low	Low
Cheng, 2021	High	Low	Low	High	High	High
Christensen, 2009	Low	Low	Low	Low	Low	Low
Clarke, 2009	Low	High	High	High	Low	High
Clarke, 2014	Low	High	High	Low	Some concerns	High
Clarke, 2015	Low	High	High	Low	Some concerns	High
Essving, 2011	Low	Some concerns	Low	Low	Some concerns	Some concerns
Feng, 2021	Low	High	High	Low	Some concerns	High
Fenten, 2018	Low	Some concerns	Low	Low	Low	Some concerns
Foadi, 2017	Some concerns	High	Low	High	Low	High
Fransen, 2006	Low	Low	High	Low	Low	High
Ho, 2010	Some concerns	Some concerns	Low	Low	Low	Some concerns
Ilfeld, 2009	Some concerns	High	High	Low	Low	High
Ilfeld, 2009	Some concerns	High	High	Low	Low	High
Ilfeld, 2011	Low	High	High	Low	Low	High
Imani, 2023	Low	Low	Low	Low	Low	Low
Johnson, 2017	Low	Low	Low	Low	Low	Low
Koh, 2019	Low	Low	Low	Low	Some concerns	Some concerns
Kwon, 2014	Some concerns	Some concerns	Low	Low	Low	Some concerns
Luo, 2024	High	Low	Low	High	Low	High
Lützner, 2020	High	Low	Low	High	Low	High
Martin, 2008	Low	Low	Low	Low	Low	Low

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Study (Year)	Randomization Process	Deviations from intended interventions	Missing outcome data	Measurment of the outcome	Selection of the reported result	Overall
Meunier, 2007	Low	Low	Low	Low	Low	Low
Mølgaard, 2023	Low	High	High	Low	High	High
Motififard, 2023	Some concerns	Some concerns	Low	Some concerns	Some concerns	Some concerns
Nader, 2012	Low	Low	Low	High	Some concerns	High
Pang, 2008	Some concerns	High	High	Low	Some concerns	High
Peng, 2014	Low	Some concerns	High	High	Low	High
Perrin, 2009	Low	Low	Low	Low	Some concerns	Some concerns
Petersen, 2018	Low	High	High	Low	High	High
Ranjani, 2024	Low	Some concerns	Low	Low	Low	Some concerns
Reinhardt, 2014	Low	Some concerns	Some concerns	Low	Low	Some concerns
Remerand, 2009	Low	Low	Low	Low	Low	Low
Rienstra, 2021	Some concerns	Some concerns	High	High	Some concerns	High
Sanders, 2009	Some concerns	High	High	High	Low	High
Singla, 2015	Some concerns	Some concerns	High	High	Low	High
Skrejborg, 2020	Low	High	High	High	Some concerns	High
Tammachote, 2018	Low	Some concerns	Low	Low	Low	Some concerns
Wang, 2014	Some concerns	High	High	High	Some concerns	High
Wang, 2023	Low	Low	Low	Low	Low	Low
Widmer, 2012	Some concerns	Low	Low	Low	Low	Some concerns
Williams, 2013	Some concerns	High	High	Low	Low	High
Wu, 2023	Some concerns	Low	Low	Low	Low	Some concerns
Wylde, 2015	Low	Some concerns	Low	Low	Some concerns	Some concerns
YaDeau, 2015	Low	Low	Low	High	Low	High
Zhao, 2023	Low	Low	Low	Low	Low	Low
Kitcharanant, 2024	Low	Low	Low	Low	Low	Some concerns
Li, 2024	Low	Some concerns	High	Low	Some concerns	High
Pinsornsak, 2024	Low	Low	Low	High	High	High
YaDeau, 2024	Low	High	Some concerns	Low	Low	High
Yin, 2024	Some concerns	High	High	Low	High	High

Fig 4: Network of comparisons for physical function after Knee/Hip replacement surgeries at the longest follow-up. Each circle (node) represents an intervention. Solid lines indicate comparisons for which direct information was available. Abbreviations for interventions: Usual care (USUAL); Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); COOPW (Opioid (WI)+Corticosteroid (WI)); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB)

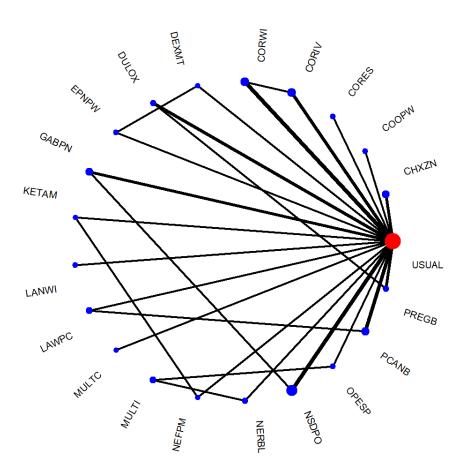


Fig 5: Network of comparisons for all-cause drop out after Knee/Hip replacement surgeries at the longest follow-up. Each circle (node) represents an intervention. Solid lines indicate comparisons for which direct information was available. Abbreviations for interventions: Usual care (USUAL); Baclofen (BACLF); Pregabalin (PREGB); Gabapentin (GABPN); Duloxetine (DULOX); Nefopam (NEFPM); Ketamine (KETAM); Corticosteroid (IV) (CORIV); Corticosteroid (WI) (CORWI); Oral Steroid (CORPO); Corticosteroid (ESP) (CORES); Corticosteroid (IV + WI) (COWIV); NB (NERBL); PCA-NB (PCANB); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI + NB(LAWPC); Lidocaine(IV) (LIDOV); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Oral Opioid (OPIPO); Opioid (EPS) (OPESP); Baclofen(EPS) (BACLF); Chlorzoxazone (CHXZN); Epi+NSAID+LA (WI) (MULTI)

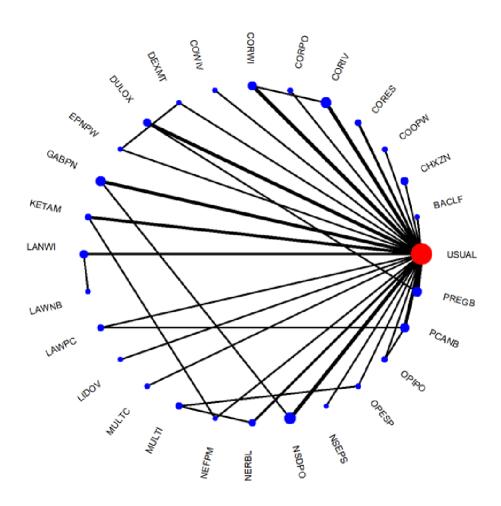


Fig 6: Network of comparisons for all-cause drop out after Knee/Hip replacement surgeries at the longest follow-up. Each circle (node) represents an intervention. Solid lines indicate comparisons for which direct information was available. Abbreviations for interventions: Usual care (USUAL); Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); COOPW (Opioid (WI)+Corticosteroid (WI)); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB)

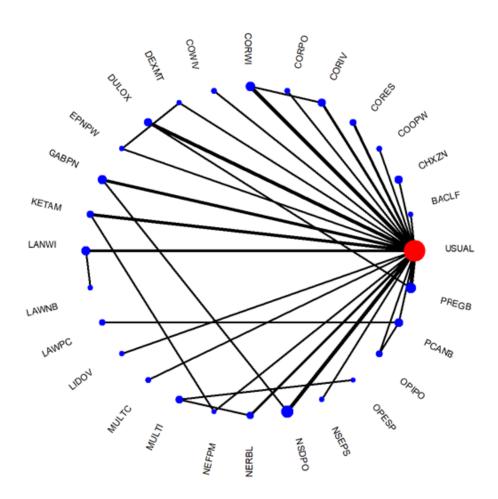


Table 6: Network meta-analysis results with certainty of evidence for CPSP at 3 to 6 months follow-up after Knee/Hip replacement surgery

BACLF		•																		
1.22	CORES																			
(0.17, 8.54)	0.72		1																	
0.88 (0.12, 6.57)	0.72 (0.17, 2.98)	CORIV																		
0.79	0.65	0.90		]																
(0.12, 5.32)	(0.18, 2.30)	(0.23, 3.53)	CORWI																	
0.51	0.42	0.58	0.65																	
(0.07, 3.63)	(0.11, 1.61)	(0.14, 2.45)	(0.18, 2.35)	COWIV																
0.67	0.55	0.76	0.85	1.30	DULOX															
(0.11, 4.09)	(0.18, 1.67)	(0.22, 2.60)	(0.30, 2.42)	(0.42, 4.05)	DOLOX		•													
0.42	0.34	0.47	0.53	0.81	0.62	GABPN														
(0.07, 2.63)	(0.11, 1.10)	(0.13, 1.69)	(0.18, 1.59)	(0.25, 2.65)	(0.25, 1.57)			1												
0.70	0.58	0.80	0.89	1.37	1.05	1.68	KETAM													
(0.11, 4.32)	(0.19, 1.78)	(0.23, 2.75)	(0.31, 2.57)	(0.44, 4.29)	(0.44, 2.51)	(0.66, 4.28)			1											
0.46	0.38	0.52	0.58	0.90	0.69	1.10	0.66	LANWI												
(0.06, 3.78)	(0.08, 1.78) 0.33	(0.10, 2.68)	(0.13, 2.62) 0.51	(0.19, 4.28) 0.78	0.17, 2.73)	(0.27, 4.55)	0.16, 2.62)	0.87		İ										
(0.04, 4.28)	(0.05, 2.18)	(0.06, 3.24)	(0.08, 3.24)	(0.12, 5.23)	(0.10, 3.46)	(0.16, 5.73)	(0.10, 3.32)	(0.29, 2.59)	LAWNB											
1.03	0.85	1.18	1.31	2.01	1.55	2.48	1.47	2.24	2.59		1									
(0.12, 9.11)	(0.16, 4.39)	(0.21, 6.58)	(0.26, 6.49)	(0.38,10.55)	(0.35, 6.81)	(0.54,11.33)	(0.33, 6.53)	(0.36,14.00)	(0.31,21.89)	LAWPC										
6.02	4.94	6.86	7.64	11.74	9.02	14.46	8.59	13.08	15.11	5.83		1								
	(0.23.104.47)		(0.37,157.65)		(0.46,175.26)	-			(0.54,426.53)	(0.24,143.55)	LIDOV									
0.73	0.60	0.84	0.93	1.43	1.10	1.76	1.05	1.59	1.84	0.71	0.12									
(0.01,48.99)	(0.01,31.32)	(0.02,44.92)	(0.02,47.53)	(0.03,74.79)	(0.02,53.59)	(0.04,87.12)	(0.02,51.16)	(0.03,89.91)	(0.03,120.23)	(0.01,41.62)	(0.00,15.01)	MULTI								
0.70	0.58	0.80	0.89	1.37	1.05	1.69	1.00	1.53	1.76	0.68	0.12	0.96	NEEDNA	]						
(0.09, 5.36)	(0.14, 2.45)	(0.17, 3.71)	(0.22, 3.60)	(0.32, 5.89)	(0.30, 3.70)	(0.46, 6.20)	(0.32, 3.15)	(0.29, 7.98)	(0.24,12.82)	(0.12, 3.89)	(0.01, 2.60)	(0.02,51.91)	NEFPM		_					
1.76	1.44	2.00	2.23	3.43	2.63	4.22	2.50	3.82	4.41	1.70	0.29	2.39	2.50	NERBL						
(0.10,29.95)	(0.12,16.73)	(0.16,24.46)	(0.20,25.09)	(0.29,40.05)	(0.25,27.46)	(0.39,45.06)	(0.24,26.26)	(0.29,50.34)	(0.27,72.69)	(0.12,23.80)	(0.01,11.60)		(0.20,31.08)	NENDE		1				
3.59	2.95	4.09	4.56	7.01	5.38	8.63	5.13	7.81	9.02	3.48	0.60	4.90	5.12	2.05	NSDPO					
(0.12,112.30)							(0.24,108.63)													
0.49	0.40	0.55	0.62	0.95	0.73	1.17	0.69	1.06	1.22	0.47	0.08	0.66	0.69	0.28	0.14	OPESP				
(0.08, 3.12)	(0.12, 1.32)	(0.15, 2.03)	(0.20, 1.91)	(0.28, 3.18)		(0.42, 3.22)	(0.26, 1.83)	(0.25, 4.45)	(0.20, 7.44)	(0.10, 2.20)	(0.00, 1.61)		(0.18, 2.61)	(0.03, 3.00)	(0.01, 2.94)	4.22		1		
0.59 (0.08, 4.49)	0.49 (0.12, 2.05)	0.67 (0.15, 3.10)	0.75 (0.19, 3.00)	1.15 (0.27, 4.92)	0.89 (0.25, 3.09)	1.42 (0.39, 5.17)	0.84 (0.24, 2.97)	1.29 (0.25, 6.68)	1.49 (0.21,10.74)	0.57 (0.12, 2.64)	0.10 (0.00, 2.19)	0.81 (0.01,43.63)	0.84 (0.18, 3.98)	0.34 (0.03, 4.16)	0.16 (0.01, 3.97)	1.22 (0.33, 4.56)	OPIPO			
0.76	0.63	0.87	0.97	1.49	1.14	1.83	1.09	1.66	1.91	0.74	0.13	1.04	1.09	0.43	0.21	1.57	1.29		i	
(0.12, 4.98)	(0.18, 2.12)	(0.23, 3.26)	(0.30, 3.08)	(0.43, 5.11)	(0.42, 3.07)	(0.64, 5.20)	(0.40, 2.96)	(0.38, 7.14)	(0.31,11.88)	(0.24, 2.22)	(0.01, 2.56)	(0.02,52.19)	(0.28, 4.19)	(0.04, 4.76)		_	(0.45, 3.70)	PCANB	'n	
0.60	0.49	0.69	0.76	1.17	0.90	1.45	0.86	1.31	1.51	0.58	0.10	0.82	0.86	0.34	0.17	1.24	1.02	0.79		
(0.09, 3.86)		(0.19, 2.50)	(0.25, 2.36)	(0.35, 3.92)	(0.35, 2.34)	(0.53, 3.97)	(0.33, 2.25)	(0.31, 5.50)	(0.25, 9.20)	(0.13, 2.72)			(0.23, 3.22)			(0.44, 3.52)			PREGB	
0.43	0.35	0.49	0.54	0.84	0.64	1.03	0.61	0.93	1.08	0.42	0.07	0.59	0.61	0.24	0.12	0.88	0.73	0.56	0.71	
	(0.14, 0.90)		(0.23, 1.28)	(0.32, 2.18)			(0.33, 1.15)							(0.03, 2.36)	1	(0.42, 1.86)	(0.24, 2.16)	(0.26, 1.23)		USUAL
Footnote: R	oculte are	Rick Rati	م (25% Cla	) from the	a natwork	meta-ana	alveie Rick	ratios < 1	indicate t	he interv	ention in	the colum	n ic cunar	ior to the	compar	ator in th	e row N	umhars ii	n hold re	nracant

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 7: Direct and Indirect estimates of treatment effect for the CPSP at 3 to 6 months follow-up after Knee/Hip replacement surgery and p-value for pairwise inconsistency

comparison	k	prop	direct	indir.	RoR	Z	p-value
KETAM: NEFPM	1	0.77	0.92	1.35	0.68	-0.28	0.781
NEFPM: USUAL	1	0.91	0.58	0.98	0.59	-0.28	0.781
OPIPO: PCANB	1	0.63	1.00	1.96	0.51	-0.61	0.544
OPIPO: USUAL	1	0.52	1.00	0.51	1.96	0.61	0.544
PCANB: USUAL	4	0.85	0.51	1.00	0.51	-0.61	0.544

All the evidence comes from trials which directly compare them. Significant inconsistency P value means estimates from direct and indirect comparison are statistically different. P value for the 'design-by-treatment' model (global test of incoherence) = 0.826

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

**k** - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (RR) derived from direct evidence; **indir**.- Estimated treatment effect (RR) derived from indirect evidence; **RoR** - Ratio of Ratios (direct versus indirect); **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: Ketamine (KETAM); Nefopam (NEFPM); Oral Opioid (OPIPO); PCA-NB (PCANB); Usual care (USUAL)

Table 8: Network meta-analysis results for CPSP at 3 to 6 months follow-up after Knee replacement surgery

BACLF	1																
		1															
1.27	CORES																
(0.16,10.30)			,														
0.88	0.69	CORIV															
(0.10, 7.72)	(0.14, 3.50)	COM															
0.80	0.63	0.91	CORWI														
(0.11, 6.04)	(0.15, 2.58)	(0.20, 4.17)	0011111		_												
0.51	0.40	0.58	0.64	COWIV													
(0.06, 4.28)	(0.09, 1.90)	(0.11, 3.04)	(0.15, 2.74)	COVVIV													
1.04	0.82	1.18	1.30	2.02	DULOX												
(0.14, 7.76)	(0.20, 3.31)	(0.26, 5.35)	(0.36, 4.71)	(0.48, 8.49)	DOLOX												
0.45	0.35	0.51	0.56	0.87	0.43	GABPN											
(0.05, 3.89)	(0.07, 1.76)	(0.09, 2.80)	(0.12, 2.54)	(0.17, 4.48)	(0.10, 1.93)	GABEN											
0.79	0.62	0.90	0.99	1.54	0.76	1.77	KETAM										
(0.10, 6.14)	(0.15, 2.66)	(0.19, 4.28)	(0.26, 3.80)	(0.35, 6.81)	(0.20, 2.89)	(0.38, 8.30)	KETAM										
0.46	0.36	0.52	0.58	0.90	0.44	1.03	0.58	LANWI									
(0.05, 4.41)	(0.06, 2.06)	(0.08, 3.25)	(0.11, 2.99)	(0.15, 5.23)	(0.09, 2.28)	(0.17, 6.32)	(0.11, 3.13)	LANVVI									
0.40	0.31	0.45	0.50	0.78	0.38	0.89	0.50	0.87	LAMAND	]							
(0.03, 5.24)	(0.04, 2.65)	(0.05, 4.12)	(0.06, 3.92)	(0.09, 6.70)	(0.05, 2.99)	(0.10, 8.03)	(0.06, 4.07)	(0.25, 2.99)	LAWNB								
0.99	0.78	1.12	1.24	1.92	0.95	2.21	1.25	2.14	2.48	LAWPC							
(0.09,10.44)	(0.12, 5.01)	(0.16, 7.88)	(0.21, 7.33)	(0.29,12.72)	(0.16, 5.59)	(0.32,15.32)	(0.20, 7.64)	(0.28, 16.54)	(0.23,27.03)	LAWPC							
0.73	0.58	0.83	0.92	1.43	0.71	1.64	0.93	1.59	1.84	0.74	NEEDM	]					
(0.08, 6.58)	(0.11, 3.01)	(0.15, 4.78)	(0.19, 4.35)	(0.27, 7.67)	(0.15, 3.32)	(0.29, 9.29)	(0.25, 3.51)	(0.25,10.15)	(0.20,17.08)	(0.10, 5.34)	NEFPM						
1.76	1.39	2.00	2.20	3.43	1.70	3.93	2.23	3.82	4.41	1.78	2.40	NERBL	]				
(0.09,33.63)	(0.11,18.14)	(0.14,27.87)	(0.18,27.18)	(0.26,45.73)	(0.14,20.79)	(0.28,54.38)	(0.18,28.08)	(0.25,57.15)	(0.22,86.51)	(0.11,28.98)	(0.17,33.99)	NERBL					
3.59	2.84	4.09	4.51	7.01	3.47	8.05	4.55	7.81	9.02	3.64	4.90	2.05	Nonno				
(0.10,123.62)	(0.11,71.51)	(0.15,108.50)	(0.19,108.45)	(0.27,179.56)	(0.15,83.09)	(0.31,212.04)	(0.19,111.52)	(0.28,219.42)	(0.26,316.74)	(0.12,109.56)	(0.18,131.87)	(0.04,95.06)	NSDPO				
0.57	0.45	0.65	0.72	1.12	0.56	1.29	0.73	1.25	1.44	0.58	0.78	0.33	0.16	OPUPO	]		
(0.07, 4.96)	(0.09, 2.24)	(0.12, 3.56)	(0.16, 3.23)	(0.22, 5.71)	(0.13, 2.46)	(0.24, 6.92)	(0.16, 3.38)	(0.21, 7.59)	(0.16,12.88)	(0.11, 3.17)	(0.14, 4.39)	(0.02, 4.49)	(0.01, 4.19)	OPIPO			
0.73	0.57	0.83	0.91	1.42	0.70	1.63	0.92	1.58	1.83	0.74	0.99	0.41	0.20	1.27	DOAND		
(0.10, 5.40)	(0.14, 2.29)	(0.19, 3.70)	(0.26, 3.25)	(0.34, 5.87)	(0.20, 2.47)	(0.37, 7.18)	(0.25, 3.43)	(0.31, 7.99)	(0.24,14.05)	(0.21, 2.56)	(0.22, 4.58)	(0.03, 5.03)	(0.01, 4.81)	(0.40, 4.00)	PCANB		
0.63	0.50	0.72	0.80	1.24	0.61	1.42	0.80	1.38	1.59	0.64	0.87	0.36	0.18	1.10	0.87	DDCOD	
(0.09, 4.62)	(0.13, 1.94)	(0.17, 3.15)	(0.23, 2.75)	(0.31, 4.99)	(0.18, 2.09)	(0.33, 6.11)	(0.22, 2.91)	(0.28, 6.81)	(0.21,12.03)	(0.11, 3.65)	(0.19, 3.89)	(0.03, 4.32)	(0.01, 4.15)	(0.26, 4.69)	(0.26, 2.92)	PREGB	
0.43	0.34	0.49	0.54	0.84	0.42	0.96	0.54	0.93	1.08	0.44	0.59	0.24	0.12	0.75	0.59	0.68	HOLIM
(0.07, 2.60)	(0.12, 0.99)	(0.15, 1.65)	(0.21, 1.35)	(0.27, 2.56)	(0.17, 1.02)	(0.29, 3.18)	(0.20, 1.45)	(0.24, 3.65)	(0.17, 6.80)	(0.09, 2.00)	(0.17, 2.05)	(0.02, 2.53)	(0.01, 2.51)	(0.23, 2.44)	(0.25, 1.42)	(0.29, 1.56)	USUAL
			. , . ,		. , ,						. , ,						

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 9: Direct and Indirect estimates of treatment effect for the CPSP at 3 to 6 months follow-up after Knee replacement surgery and p-value for pairwise inconsistency

comparison	k	prop	direct	indir.	RoR	Z	p-value
KETAM: NEFPM	1	0.87	0.92	1.01	0.90	-0.05	0.960
NEFPM: USUAL	1	0.93	0.58	0.66	0.88	-0.05	0.960
OPIPO: PCANB	1	0.62	1.00	1.88	0.53	-0.52	0.603
OPIPO: USUAL	1	0.54	1.00	0.53	1.88	0.52	0.603
PCANB: USUAL	3	0.84	0.53	1.00	0.53	-0.52	0.603

All the evidence comes from trials which directly compare them. Significant inconsistency P value means estimates from direct and indirect comparison are statistically different. P value for the 'design-by-treatment' model (global test of incoherence) = 0.901

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

**k** - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (RR) derived from direct evidence; **rop** - Ratio of Ratios (direct versus indirect); **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: Ketamine (KETAM); Nefopam (NEFPM); Oral Opioid (OPIPO); PCA-NB (PCANB); Usual care (USUAL)

Table 10: Network meta-analysis results for CPSP at 3 to 6 months follow-up after hip replacement surgery

GABPN				
1.58	VETARA			
(0.71,3.51)	KETAM		_	
15.26	9.65	LIDOV		
(0.86,271.83)	(0.55,169.51)	LIDOV		
3.04	1.92	0.20	PCANB	
(0.13,72.46)	(0.08,45.24)	(0.00,13.27)	PCAND	
1.09	0.69	0.07	0.36	HELIAI
(0.60,1.98)	(0.41,1.17)	(0.00,1.19)	(0.02,8.06)	USUAL

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Gabapentin (GABPN); Ketamine (KETAM); Lidocaine(IV) (LIDOV); PCA-NB (PCANB); Usual care (USUAL)

Table 11: Network meta-analysis results for CPSP at 6 to 12 months follow-up after Knee/Hip replacement surgery

CHXZN												
1.01	CORIV											
(0.30,3.46)	COM		Ī									
1.75	1.73	CORWI										
(0.37,8.24)	(0.63,4.73)	CORVVI		-								
1.08	1.07	0.62	DULOX									
(0.29,4.10)	(0.57,2.00)	(0.20,1.91)	DOLOX									
0.67	0.66	0.38	0.62	GABPN								
(0.13,3.39)	(0.21,2.02)	(0.09,1.64)	(0.18,2.12)	GABPIN								
2.01	1.99	1.15	1.86	3.02	VETARA							
(0.35,11.51)	(0.55,7.21)	(0.23,5.65)	(0.47,7.44)	(0.57,16.07)	KETAM							
1.09	1.08	0.62	1.01	1.64	0.54	LANDAL						
(0.32,3.68)	(0.79,1.47)	(0.23,1.67)	(0.55,1.84)	(0.54,4.97)	(0.15,1.94)	LANWI						
0.53	0.52	0.30	0.49	0.80	0.26	0.49	1.034/010					
(0.07,4.07)	(0.10,2.77)	(0.04,2.05)	(0.09,2.80)	(0.11,5.75)	(0.03,2.10)	(0.09,2.49)	LAWNB					
0.80	0.79	0.46	0.74	1.20	0.40	0.74	1.51	LANAVDO				
(0.14,4.69)	(0.21,2.95)	(0.09,2.30)	(0.18,3.04)	(0.22,6.55)	(0.07,2.42)	(0.20,2.71)	(0.19,12.22)	LAWPC				
1.85	1.82	1.05	1.71	2.77	0.92	1.69	3.47	2.30	NICEDNA			
(0.32,10.51)	(0.51,6.57)	(0.21,5.16)	(0.43,6.79)	(0.52,14.67)	(0.21,4.08)	(0.48,6.02)	(0.44,27.52)	(0.38,13.93)	NEFPM			
0.64	0.63	0.36	0.59	0.96	0.32	0.59	1.20	0.80	0.35	NCDDO		
(0.18,2.31)	(0.37,1.06)	(0.12,1.07)	(0.28,1.23)	(0.29,3.14)	(0.08,1.21)	(0.36,0.96)	(0.22,6.62)	(0.20,3.13)	(0.09,1.32)	NSDPO		
0.83	0.82	0.47	0.76	1.24	0.41	0.76	1.56	1.03	0.45	1.29	DCAND	
(0.21,3.33)	(0.39,1.73)	(0.14,1.57)	(0.31,1.89)	(0.34,4.56)	(0.10,1.74)	(0.37,1.57)	(0.26,9.31)	(0.35,3.04)	(0.11,1.89)	(0.56,3.00)	PCANB	
0.97	0.95	0.55	0.89	1.45	0.48	0.88	1.82	1.20	0.52	1.51	1.17	LICLIAL
(0.29,3.21)	(0.74,1.23)	(0.21,1.46)	(0.50,1.58)	(0.48,4.33)	(0.14,1.69)	(0.74,1.06)	(0.35,9.40)	(0.33,4.37)	(0.15,1.84)	(0.96,2.38)	(0.58,2.36)	USUAL

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 12: Network meta-analysis results for CPSP at 6 to 12 months follow-up after Knee replacement

CHXZN											
1.46 (0.38,5.63)	CORIV										
1.75 (0.37,8.24)	1.20 (0.38,3.77)	CORWI									
0.67	0.45	0.38									
(0.13,3.39)	(0.13,1.59)	(0.09, 1.64)	GABPN								
2.01	1.37	1.15	3.02	KETAM							
(0.35,11.51)	(0.34,5.58)	(0.23,5.65)	(0.57,16.07)			1					
1.33	0.91	0.76	2.00	0.66	LANWI						
(0.24,7.26)	(0.24,3.48)	(0.16,3.55)	(0.39,10.12)	(0.12,3.76)			1				
0.65	0.44	0.37	0.97	0.32	0.49	LAWNB					
(0.06,6.83)	(0.05,3.66)	(0.04, 3.49)	(0.10,9.72)	(0.03,3.50)	(0.09,2.49)	LATTING		1			
0.79	0.54	0.45	1.19	0.39	0.59	1.22	LAWPC				
(0.13,4.66)	(0.13,2.27)	(0.09, 2.29)	(0.22,6.51)	(0.06,2.41)	(0.10,3.50)	(0.11,13.61)	LAWIO		1		
1.85	1.26	1.05	2.77	0.92	1.39	2.85	2.34	NEFPM			
(0.32,10.51)	(0.31,5.08)	(0.21,5.16)	(0.52,14.67)	(0.21,4.08)	(0.24,7.89)	(0.26,30.99)	(0.38,14.30)	1421111		ī	
5.77	3.94	3.29	8.65	2.86	4.34	8.92	7.30	3.12	NSDPO		
(0.23,143.28)	(0.19,82.30)	(0.14,75.51)	(0.36,206.87)	(0.11,72.79)	(0.17,107.62)	(0.24,327.37)	(0.28,188.66)	(0.12,79.23)	NODI O		
0.81	0.56	0.46	1.22	0.40	0.61	1.26	1.03	0.44	0.14	PCANB	
(0.20,3.32)	(0.22,1.43)	(0.14,1.57)	(0.33,4.55)	(0.09,1.74)	(0.15,2.49)	(0.15,10.84)	(0.35,3.04)	(0.10,1.88)	(0.01,3.03)	· OAIID	
0.97	0.66	0.55	1.45	0.48	0.73	1.49	1.22	0.52	0.17	1.19	USUAL
(0.29,3.21)	(0.36,1.21)	(0.21,1.46)	(0.48,4.33)	(0.14,1.69)	(0.22,2.41)	(0.20,11.32)	(0.33,4.50)	(0.15,1.84)	(0.01,3.29)	(0.57,2.46)	UJUAL

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LAWNI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 13: Network meta-analysis results for CPSP at 6 to 12 months follow-up after hip replacement surgery

CORIV			
0.65	NSDPO		
(0.38, 1.11)	Nappo		
1.09	1.69	PCANB	
(0.07,16.28)	(0.11,25.84)	PCAND	
1.03	1.59	0.94	HEHAI
(0.78, 1.36)	(1.00, 2.53)	(0.06,13.82)	USUAL

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Corticosteroid (IV) (CORIV); Oral NSAID (NSDPO); PCA-NB (PCANB); Usual care (USUAL)

Table 14: Network meta-analysis results for pain intensity (0-10cm VAS) at 3 to 6 months follow-up after Knee/Hip replacement surgery

	l																									
BACLF		1																								
-1.00 (-2.39,0.39)	COOPW																									
-1.29	-0.29	CORES	1																							
	(-1.20,0.62)																									
-0.93 (-2.20,0.34)	0.07 (-0.71,0.84)	0.36 (-0.34,1.06)	CORIV																							
-1.00	-0.00	0.29	-0.07	00000																						
	(-0.98,0.98)	(-0.63,1.21)		CORPO																						
-0.95	0.05	0.34	-0.02	0.05	CORWI																					
(-2.21,0.31) -0.98	0.02	(-0.35,1.03) 0.31	(-0.45,0.41) -0.05	0.02	-0.03		1																			
(-2.41,0.45)		(-0.66, 1.28)			(-0.87,0.81)	COWIV																				
-1.20	-0.20	0.09	-0.27	-0.20	-0.25	-0.22	DEXMT																			
	(-1.17,0.77)	(-0.82,1.00)			(-1.02,0.52)	(-1.25,0.81)																				
-0.70 (-2.00.0.60)	0.30 (-0.52,1.13)	0.59 (-0.16,1.35)	0.23 (-0.35,0.82)	0.30 (-0.54,1.14)	0.25 (-0.32.0.83)	0.28 (-0.61,1.17)	0.50 (-0.33,1.33)	DULOX																		
-1.00	-0.00	0.29	-0.07	0.00	-0.05	-0.02	0.20	-0.30	EPNPW																	
(-2.41,0.41)		(-0.64, 1.22)			(-0.84,0.74)	(-1.06,1.02)		(-1.15,0.54)																		
-1.08	-0.08 (-0.93,0.76)	0.21 (-0.57,0.98)	-0.15	-0.08	-0.13	-0.10 (-1.01,0.81)	0.12	-0.38	-0.08 (-0.95,0.78)	GABPN																
-0.73	0.27	0.56	(-0.77,0.46) 0.20	0.27	0.22	0.25	(-0.73,0.97) 0.47	-0.03	0.27	0.35																
(-2.17,0.71)		(-0.42,1.54)		(-0.78,1.32)	(-0.63,1.07)	(-0.84,1.34)			(-0.78,1.32)	(-0.57,1.28)	KETAM															
-1.17	-0.17	0.12	-0.24	-0.17	-0.22	-0.19	0.03	-0.47	-0.17	-0.09	-0.44	LANWI														
(-2.73,0.39) -1.57	(-1.37,1.03) -0.57	(-1.03,1.27) -0.28	(-1.29,0.81) -0.64	(-1.38,1.04) -0.57	(-1.26,0.82) -0.62	(-1.44,1.06) -0.59	(-1.17,1.23)	-0.87	(-1.38,1.04) -0.57	(-1.19,1.01) -0.49	-0.84															
(-3.46,0.32)		(-1.84,1.28)	1			(-2.22,1.04)	(-1.97,1.23)		(-2.18,1.04)	(-2.01,1.04)	(-2.48,0.80)	-0.40 (-1.46.0.66)	LAWNB													
-0.76	0.24	0.53	0.17	0.24	0.19	0.22	0.44	-0.06	0.24	0.32	-0.03	0.41	0.81	LAWPC												
(-2.12,0.60)		(-0.33,1.39)	,	(-0.70,1.18)	(-0.52,0.90)	(-0.77,1.21)			(-0.70,1.18)	(-0.47,1.12)	(-1.03,0.96)	(-0.75,1.57)	(-0.76,2.38)													
-0.20	0.80 (-0.55,2.15)	1.09 (-0.21,2.39)	0.73	0.80 (-0.55,2.15)	0.75	0.78 (-0.61,2.17)	1.00 (-0.35,2.35)	0.50	0.80 (-0.56,2.16)	0.88 (-0.38,2.14)	0.53 (-0.87,1.92)	0.97	1.37 (-0.48,3.22)	0.56 (-0.75,1.87)	LIDOV											
-1.28	-0.28	0.01	-0.35	-0.28	-0.33	-0.30	-0.08	-0.58	-0.28	-0.20	-0.55	-0.11	0.29	-0.52	-1.08		1									
(-2.72,0.16)	(-1.31,0.75)	(-0.97,0.99)	1		(-1.17,0.52)	(-1.39,0.79)	(-1.11,0.95)	(-1.48,0.32)	(-1.33,0.77)	(-1.11,0.72)	(-1.65,0.54)	(-1.36,1.14)	(-1.35,1.93)	(-1.51,0.47)	(-2.47,0.31)	MULTC										
-1.44	-0.44	-0.15	-0.50	-0.44	-0.48	-0.46	-0.24	-0.74	-0.44	-0.35	-0.71	-0.27	0.13	-0.68	-1.24	-0.16	MULTI									
(-3.15,0.28) -0.69	(-1.83,0.96) 0.31	(-1.50,1.21) 0.60	(-1.77,0.76) 0.25	(-1.84,0.97) 0.31	(-1.75,0.78) 0.27	(-1.89,0.98) 0.29	(-1.63,1.16) 0.51	(-2.04,0.56) 0.01	(-1.84,0.97) 0.31	(-1.67,0.96) 0.40	0.04	(-1.83,1.30) 0.48	(-1.75,2.02) 0.88	(-2.04,0.69) 0.07	(-2.92,0.44) -0.49	(-1.60,1.28) 0.59	0.75		Ì							
(-2.21,0.83)		(-0.49,1.70)			(-0.71,1.25)	(-0.90,1.49)		(-1.01,1.04)					(-0.83,2.59)	(-1.03,1.18)		(-0.60,1.79)	1	NEFPM								
-0.77	0.23	0.52	0.17	0.23	0.19	0.21	0.43	-0.07	0.23	0.32	-0.04	0.40	0.80	-0.01	-0.57	0.51	0.67	-0.08	NERBL							
	(-0.97,1.44)	(-0.63,1.68)				(-1.04,1.46)			(-0.98,1.45)	(-0.79,1.42)			(-0.95,2.55)	(-1.18,1.16)		(-0.74,1.77)	(-0.04,1.38)	(-1.43,1.27)			İ					
-0.94 (-2.26,0.39)	0.06 (-0.80,0.93)	0.35	-0.00 (-0.65,0.64)	0.06 (-0.82,0.95)	0.02 (-0.62,0.65)	0.04 (-0.89,0.98)	0.26 (-0.61,1.14)	-0.24 (-0.94.0.47)	0.06 (-0.83,0.95)	0.15 (-0.42,0.71)	-0.21 (-1.15.0.74)	0.23 (-0.89,1.35)	0.63 (-0.91,2.17)	-0.18 (-1.00,0.64)	-0.74 (-2.01,0.54)	0.34	0.50 (-0.83,1.83)	-0.25 (-1.31,0.81)	-0.17 (-1.29,0.96)	NSDPO						
-0.90	0.10	0.39	0.03	0.10	0.05	0.08	0.30	-0.20	0.10	0.18	-0.17	0.27	0.67	-0.14	-0.70	0.38	0.54	-0.21	-0.13	0.04	NSEPS					
(-2.49,0.69)		(-0.79,1.57)		(-1.14,1.34)		(-1.19,1.35)	(-0.93,1.53)		(-1.14,1.34)			(-1.15,1.69)	(-1.10,2.44)		(-2.24,0.84)		(-1.05,2.12)		(-1.55,1.29)	(-1.11,1.19)						
-0.59 (-2.53,1.36)	0.41 (-1.25,2.08)	0.70 (-0.93,2.33)	0.35	0.41	0.37 (-1.19,1.92)	0.39 (-1.30,2.09)	0.61 (-1.05,2.28)	0.11 (-1.47,1.70)	0.41 (-1.26,2.09)	0.50	0.14	0.58	0.98 (-1.11,3.08)	0.17 (-1.46,1.81)	-0.39 (-2.29,1.52)	0.69 (-1.01,2.39)	0.85	0.10 (-1.67,1.87)	0.18 (-1.63,1.99)	0.35	0.31 (-1.51,2.14)	OPESP				
-1.20	-0.20	0.09	-0.26	-0.20	-0.24	-0.22	0.00	-0.50	-0.20	-0.11	(-1.56,1.85) -0.47	-0.03	0.37	-0.44	-1.00	0.08	0.24	-0.51	-0.43	-0.26	-0.30	-0.61				
(-2.57,0.18)			1		(-0.98,0.50)	(-1.22,0.79)	(-0.95,0.96)		(-1.16,0.77)	(-0.93,0.71)		(-1.21,1.16)	(-1.21,1.96)	(-1.31,0.44)		(-0.93,1.10)			(-1.62,0.76)	(-1.10,0.59)	(-1.51,0.92)	(-2.26,1.04)	OPIPO			
-0.86	0.14	0.43	0.08	0.14	0.10	0.12	0.34	-0.16	0.14	0.23	-0.13	0.31	0.71	-0.10	-0.66	0.42	0.58	-0.17	-0.09	0.08	0.04	-0.27	0.34	PCANB		
(-2.13,0.42)	(-0.65,0.93) -0.02	(-0.28,1.15) 0.27	(-0.46,0.61) -0.09	-0.66,0.95)	(-0.43,0.62) -0.07	(-0.74,0.99) -0.04	(-0.45,1.14) 0.18	(-0.76,0.45) -0.32	(-0.67,0.96) -0.02	(-0.41,0.86) 0.06	(-1.00,0.75) -0.29	(-0.74,1.37) 0.15	(-0.78,2.21) 0.55	(-0.69,0.49) -0.26	(-1.88,0.57) -0.82	(-0.44,1.29) 0.26	(-0.70,1.86) ( 0.41	(-1.17,0.83) -0.34	(-1.15,0.98) -0.26	(-0.58,0.75) -0.09	(-1.05,1.14) -0.12	(-1.84,1.30) -0.44	(-0.38,1.06) 0.17	-0.17		
	(-0.95,0.90)	(-0.60,1.13)	(-0.81,0.63)	-0.02 (-0.96,0.91)		(-1.03,0.94)	(-0.75,1.10)		-0.02 (-0.97,0.92)	(-0.73,0.86)	-0.29		(-1.03,2.12)	-0.26 (-1.14,0.62)		(-0.73,1.25)		-0.34 (-1.44,0.77)	-0.26 (-1.42,0.91)	(-0.91,0.73)	-0.12 (-1.32,1.07)	-0.44 (-2.07,1.20)		-0.17 (-0.90,0.57)	PREGB	
-1.10	-0.10	0.19	-0.17	-0.10	-0.15	-0.12	0.10	-0.40	-0.10	-0.02	-0.37	0.07	0.47	-0.34	-0.90	0.18	0.34	-0.41	-0.33	-0.16	-0.20	-0.51	0.10	-0.24	-0.08	HEHAL
(-2.31,0.11)	(-0.78,0.58)	(-0.41,0.79)	(-0.53,0.20)	(-0.80,0.60)	(-0.49,0.20)	(-0.88,0.64)	(-0.59,0.79)	(-0.86,0.06)	(-0.81,0.61)	(-0.51,0.48)	(-1.15,0.41)	(-0.91,1.05)	(-0.97,1.91)	(-0.96,0.28)	(-2.06,0.26)	(-0.59,0.95)	(-0.88,1.55)	(-1.33,0.50)	(-1.32,0.66)	(-0.70,0.37)	(-1.22,0.82)	(-2.03,1.00)	(-0.56,0.75)	(-0.64,0.15)	(-0.70,0.54)	USUAL

Footnote: Results are mean difference (95% CI) from the network meta-analysis. For each comparison (column vs. row) a mean difference < 0 indicates the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LAWWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 15: Direct and Indirect estimates of treatment effect for pain intensity (0-10cm VAS) at 3 to 6 months follow-up after Knee/Hip replacement surgery

comparison	k	Prop	direct	indir.	Diff	Z	p-value
CORIV: CORWI	1	0.43	0.09	-0.11	0.2	0.45	0.655
CORIV: USUAL	3	0.77	-0.21	-0.02	-0.2	-0.45	0.655
CORWI: USUAL	4	0.80	-0.11	-0.3	0.2	0.45	0.655
GABPN: USUAL	2	0.97	0.02	-1.15	1.17	0.83	0.406
KETAM: NEFPM	1	0.93	-0.13	2.43	-2.56	-1.36	0.175
LAWPC: PCANB	1	0.67	-0.3	0.31	-0.61	-0.96	0.337
LAWPC: USUAL	1	0.45	0.00	-0.61	0.61	0.96	0.337
NEFPM: USUAL	1	0.94	-0.57	2.16	-2.73	-1.36	0.175
NSDPO: USUAL	2	0.93	-0.24	0.83	-1.06	-0.99	0.320
OPIPO: PCANB	1	0.27	0	0.46	-0.46	-0.56	0.576
OPIPO: USUAL	1	0.80	0.19	-0.27	0.46	0.56	0.576
PCANB: USUAL	4	0.83 -0.35		0.26	-0.61	-1.15	0.248

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

k - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (MD) derived from direct evidence; **indir**.- Estimated treatment effect (MD) derived from indirect evidence; **Diff** - Difference between direct and indirect treatment estimates; **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 16: Network meta-analysis results for pain intensity (0-10cm VAS) at 3 to 6 months follow-up after Knee replacement surgery

BACLF																						
-1.00 (-2.42,0.4	COOPW																					
-1.29	-0.29	CORES																				
(-2.66,0.0	, , , ,			1																		
-0.93	0.07	0.36	CORIV																			
-1.00	0.00	(-0.36,1.08) 0.29	-0.07		1																	
(-2.43,0.4			I	CORPO																		
-0.95	0.05	0.34	-0.02	0.05	CODWI																	
(-2.23,0.3	(-0.75,0.84)	(-0.37,1.05)	(-0.47,0.42)	(-0.76,0.86)	CORWI		_															
-0.98	0.02	0.31	-0.05	0.02	-0.03	cowiv																
(-2.44,0.4	, , , , ,			(-1.05,1.09)				1														
-1.20 (-2.62,0.2	-0.20	0.09 (-0.85,1.03)	-0.27	-0.20 (-1.22,0.82)	-0.25 (-1.05,0.55)	-0.22 (-1.29,0.85)	DEXMT															
-0.69	0.31	0.60	0.24	0.31	0.27	0.29	0.51		]													
(-2.00,0.6			(-0.37,0.85)		(-0.33,0.86)		(-0.35,1.37)	DULOX														
-1.00	0.00	0.29	-0.07	0.00	-0.05	-0.02	0.20	-0.31	EPNPW	]												
(-2.43,0.4	(-1.02,1.02)	(-0.67,1.25)	(-0.90,0.76)	(-1.04,1.04)	(-0.87,0.77)	(-1.10,1.06)	(-0.53, 0.93)	(-1.19,0.56)	EPNPW													
-1.09	-0.09	0.20	-0.16	-0.09	-0.13	-0.11	0.11	-0.40	-0.09	GABPN												
(-2.42,0.2	, , , ,	(-0.60,1.01)		(-0.98,0.81)			,		(-0.99,0.81)	0.05		1										
-0.74	0.26	0.55	0.19	0.26 (-0.81,1.34)	0.22	0.24 (-0.87,1.36)	0.46	-0.05 (-0.97,0.87)	0.26 (-0.82,1.35)	0.35	KETAM											
-1.17	-0.17	0.12	-0.24	-0.17	-0.22	-0.19	0.03	-0.48	-0.17	-0.08	-0.43		1									
(-2.76,0.4	(-1.40,1.06)	(-1.06,1.29)	(-1.31,0.83)	(-1.41,1.07)	(-1.28,0.85)	(-1.47,1.09)	(-1.20,1.26)	(-1.59,0.63)	(-1.41,1.07)	(-1.21,1.04)	1	LANWI										
-1.57	-0.57	-0.28	-0.64	-0.57	-0.62	-0.59	-0.37	-0.88	-0.57	-0.48	-0.83	-0.40	LAWNB									
-	(-2.20,1.06)	(-1.87,1.31)	(-2.16,0.88)	, ,	(-2.13,0.90)	(-2.26,1.08)	-		(-2.21,1.07)	(-2.04,1.08)	,	(-1.48,0.68)	LAWIND									
-0.83	0.17	0.46	0.10	0.17	0.12	0.15	0.37	-0.14	0.17	0.26	-0.09	0.34	0.74	LAWPC								
	(-0.79,1.13)			(-0.80,1.15)	(-0.61,0.86)	,	,	,	(-0.81,1.15)	(-0.57,1.09)	(-1.12,0.93)	,	(-0.87,2.35)			1						
-1.28 (-2.74,0.1	-0.28 () (-1.35,0.79)	0.01 (-1.00,1.01)	-0.35	-0.28 (-1.36,0.80)	-0.33 (-1.20,0.55)	-0.30 (-1.42,0.82)	-0.08	-0.59 (-1.52,0.33)	-0.28 (-1.36,0.80)	-0.19 (-1.14,0.75)	-0.54 (-1.67,0.58)	-0.11	0.29	-0.45	MULTC							
-0.69	0.31	0.60	0.24	0.31	0.26	0.29	0.51	-0.00	0.31	0.40	0.05	0.48	0.88	0.14	0.59		1					
	(-0.87,1.49)		-	(-0.88,1.50)	(-0.74,1.26)	(-0.93,1.51)			(-0.88,1.50)		(-0.91,1.00)		(-0.86,2.62)			NEFPM						
-0.77	0.23	0.52	0.16	0.23	0.19	0.21	0.43	-0.08	0.23	0.32	-0.03	0.40	0.80	0.06	0.51	-0.08	NERBL					
(-2.36,0.8	, ,	(-0.66,1.70)		(-1.01,1.48)		(-1.07,1.49)	,	,	(-1.02,1.48)	, ,	(-1.31,1.25)		(-0.98,2.59)			, ,			i			
-0.93	0.07	0.36	-0.00	0.07	0.02	0.05	0.27	-0.25	0.07	0.15	-0.20	0.24	0.64	-0.10	0.35	-0.24	-0.17	NSDPO				
-1.22		(-0.47,1.19) 0.07	(-0.68,0.67) -0.29	(-0.85,0.98) -0.22	(-0.64,0.68)	,	(-0.64,1.17) -0.02	(-0.98,0.49) -0.53	(-0.86,0.99)	(-0.44,0.75)		(-0.91,1.38) -0.05	(-0.94,2.21) 0.35			(-1.33,0.85) -0.53	(-1.32,0.99) -0.45					
(-2.62,0.1	-0.22 (-1.20,0.77)			(-1.21,0.78)	-0.26 (-1.03,0.50)	-0.24 (-1.27,0.80)	-0.02 (-1.00,0.97)		-0.22 (-1.21,0.78)	-0.13 (-0.98,0.72)	-0.48 (-1.52,0.56)		(-1.26,1.97)	-0.39	0.06		-0.45 (-1.66,0.77)	-0.28 (-1.16,0.59)	OPIPO			
-0.96	0.04	0.33	-0.03	0.04	-0.01	0.02	0.24	-0.27	0.04	0.13	-0.22	0.21	0.61	-0.13	0.32	-0.27	-0.19	-0.03	0.26			
(-2.26,0.3	(-0.79,0.88)			(-0.81,0.89)			-		(-0.82,0.90)		(-1.13,0.68)		(-0.92,2.14)			(-1.30,0.76)		(-0.73,0.68)	(-0.49,1.00)	PCANB		
-0.82	0.18	0.47	0.11	0.18	0.13	0.16	0.38	-0.13	0.18	0.27	-0.08	0.35	0.75	0.01	0.46	-0.13	-0.05	0.11	0.40	0.14	PREGB	
(-2.54,0.9				(-1.22,1.58)		(-1.28,1.60)	-	(-1.42,1.16)	(-1.23,1.59)	(-1.04,1.57)	,	,	(-1.15,2.65)	,					(-0.98,1.77)	(-1.14,1.41)		
-1.10	-0.10	0.19	-0.17	-0.10	-0.15	-0.12	0.10	-0.41	-0.10	-0.01	-0.36	0.07	0.47	-0.27	0.18	-0.41	-0.33	-0.17	0.12	-0.14	-0.28	USUAL
[(-2.33,0.1	(-0.81,0.61)	(-0.42,0.80)	[(-0.55,0.21)	J(-0.83,0.63)	[(-0.50,0.21)	[(-0.91,0.67)	(-0.62,0.82)	(-0.89,0.06)	[(-U.84,U.64)	[(-0.53,0.50)	[(-1.16,0.43)	[(-0.93,1.07)	(-1.00,1.94)	[(-0.92,0.38)	[(-0.62,0.98)	[(-1.35,0.53)	[(-1.34,0.68)	(-0.72,0.39)	(-0.56,0.79)	(-0.58,0.30)	[-1.48,0.92)	

Footnote: Results are mean difference (95% CI) from the network meta-analysis. For each comparison (column vs. row) a mean difference < 0 indicates the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LAWWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 17: Direct and Indirect estimates of treatment effect for pain intensity (0-10cm VAS) at 3 to 6 months follow-up after Knee replacement surgery

comparison	k	prop	direct	indir.	Diff	Z	p-value
CORIV: CORWI	1	0.43	0.09	-0.11	0.2	0.44	0.66
CORIV: USUAL	3	0.77	-0.22	-0.02	-0.2	-0.44	0.66
CORWI: USUAL	4	0.80	-0.11	-0.31	0.2	0.44	0.66
GABPN: USUAL	2	0.96	0.03	-1.15	1.17	0.82	0.412
KETAM: NEFPM	1	0.93	-0.13	2.42	-2.55	-1.34	0.181
LAWPC: PCANB	1	0.67	-0.3	0.21	-0.51	-0.76	0.445
LAWPC: USUAL	1	0.46	0.00	-0.51	0.51	0.76	0.445
NEFPM: USUAL	1	0.94	-0.57	2.14	-2.71	-1.34	0.181
NSDPO: USUAL	1	0.93	-0.24	0.83	-1.07	-0.97	0.333
OPIPO: PCANB	1	0.28	0.00	0.36	-0.36	-0.42	0.674
OPIPO: USUAL	1	0.79	0.19	-0.17	0.36	0.42	0.674
PCANB: USUAL	3	0.80	-0.24	0.26	-0.5	-0.91	0.362

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

k - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (MD) derived from direct evidence; **indir**.- Estimated treatment effect (MD) derived from indirect evidence; **Diff** - Difference between direct and indirect treatment estimates; **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 18: Network meta-analysis results for pain intensity (0-10cm VAS) at 3 to 6 months follow-up after hip replacement surgery

LIDOV				
-0.70	NICEDO			
(-1.98, 0.58)	NSEPS		_	
-0.05	0.65	DCAND		
(-1.37, 1.28)	(-0.55, 1.86)	PCANB		
-0.90	-0.20	-0.85	PREGB	
(-1.96, 0.16)	(-1.11, 0.71)	(-1.83, 0.12)	PREGB	
-0.90	-0.20	-0.85	-0.00	USUAL
(-1.88, 0.08)	(-1.01, 0.61)	(-1.74, 0.03)	(-0.40, 0.40)	USUAL

Footnote: Results are mean difference (95% CI) from the network meta-analysis. For each comparison (column vs. row) a mean difference < 0 indicates the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Lidocaine (IV) (LIDOV); NSAID(EPS) (NSEPS); (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 19: Network meta-analysis results for pain intensity (0-10cm VAS) at 6 to 12 months follow-up after Knee/Hip replacement surgery

COOPW	CHXZN															
-0.01	0.20	COORW														
Country   Coun	(-0.21, 0.62)	COOPW		<b>.</b>												
(0.12, 0.67)   (0.032, 0.46)   (0.00, 0.56)   CORW	-0.01	-0.21	CORIV													
CORW   CO.12, 0.67   (-0.32, 0.46)   (0.00, 0.56)   CORW   CORW   CO.08   CO.28   CO.07   CO.35   CO	(-0.33, 0.31)	(-0.52, 0.10)	OOMV													
(-0.12, 0.67)   (-0.32, 0.46)   (0.00, 0.56)   (-0.44)   (-4.47, 4.34)   (-4	0.27	0.07	0.28	CORWI												
(-4.47, 4.31)   (-4.67, 4.11)   (-4.45, 4.31)   (-4.74, 4.04)   DULOX    -0.16	(-0.12, 0.67)	(-0.32, 0.46)	(0.00, 0.56)	CORVI		-										
(-4.7, 4.31)   (-4.67, 4.31)   (-4.45, 4.41)   (-4.45, 4.41)   (-4.45, 4.31)   (-4.45, 4.41)   (-4.45, 4.31)   (-4.45, 4.41)   (-4.45, 4.31)   (-4.45, 4.41)   (-4.45, 4.31)   (-4.45, 4.41)   (-4.45, 4.31)   (-4.45, 4.31)   (-4.45, 4.41)   (-4.45, 4.31)   (-4.45, 4.41)	-0.08	-0.28	-0.07	-0.35	DILLOY											
Color   Colo	(-4.47, 4.31)	(-4.67, 4.11)	(-4.45, 4.31)	(-4.74, 4.04)	DOLOX											
(-0.82, 0.50)   (-1.02, 0.29)   (-0.76, 0.44)   (-1.08, 0.20)   (-4.51, 4.33)   (-0.25, 1.50)   (-0.25, 1.17)   (-0.45, 0.97)   (-0.19, 1.13)   (-0.51, 0.89)   (-3.89, 4.97)   (-0.25, 1.50)   (-0.71, 1.14)   (-0.91, 0.93)   (-0.66, 1.10)   (-0.98, 0.85)   (-4.18, 4.76)   (-0.68, 1.43)   (-1.34, 0.84)   (-1.34, 0.84)   (-1.46, 1.09)   (-1.66, 0.88)   (-1.42, 1.06)   (-1.73, 0.80)   (-4.66, 4.44)   (-1.39, 1.35)   (-2.05, 0.75)   (-1.27, 0.47)   (-1.27, 0.47)   (-0.56, 0.51)   (-0.75, 0.30)   (-0.47, 0.44)   (-0.81, 0.21)   (-4.35, 4.46)   (-0.59, 0.87)   (-1.27, 0.30)   (-1.22, 0.74)   (-1.15, 1.48)   (-0.47, 1.18)   (-0.43, 1.09)   (-0.63, 0.89)   (-0.37, 1.05)   (-0.69, 0.80)   (-0.33, 4.64)   (-0.42, 1.41)   (-0.63, 0.37)   (-1.11, 0.02)   (-0.82, 0.16)   (-1.16, -0.07)   (-4.67, 4.15)   (-0.93, 0.59)   (-1.61, 0.01)   (-1.55, 0.45)   (-1.26, 1.26)   (-0.69, 0.34)   (-1.25, 0.23)   (-0.88, 0.69)   (-0.57, 0.20)   (-0.76, 0.01)   (-0.44, 0.09)   (-0.81, 0.11)   (-4.49, 4.28)   (-0.66, 0.66)   (-1.34, 0.04)   (-1.31, 0.51)   (-1.26, 1.26)   (-0.66, 0.34)   (-1.26, 0.23)   (-0.88, 0.69)   (-0.88, 0.64)   (-0.88, 0.64)   (-0.84, 0.69)   (-1.03, 0.48)   (-0.78, 0.64)   (-0.99, 0.09)   (-0.44, 0.09)   (-0.81, 0.11)   (-4.49, 4.28)   (-0.66, 0.61)   (-1.34, 0.04)   (-1.31, 0.51)   (-1.26, 1.26)   (-0.66, 0.34)   (-1.26, 0.23)   (-0.88, 0.69)   (-0.88, 0.08)   (-0.78, 0.64)   (-0.90, 0.09)   (-0.78, 0.64)   (-0.90, 0.09)   (-0.78, 0.64)   (-0.90, 0.09)   (-0.78, 0.64)   (-0.90, 0.09)   (-0.78, 0.64)   (-0.90, 0.09)   (-0.78, 0.04)   (-0.81, 0.01)   (-1.44, 0.42, 0.24)   (-0.90, 0.09)   (-0.74, 0.04)   (-0.86, 0.79)   (-0.88, 0.07)   (-0.88, 0.09)   (-0.88, 0.09)   (-0.78, 0.64)   (-0.90, 0.09)   (-0.78, 0.04)   (-0.89, 0.09)   (-0.81, 0.01)   (-0.89, 0.09)   (-0.81, 0.01)   (-0.89, 0.09)   (-0.81, 0.01)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.89, 0.09)   (-0.8	-0.16	-0.37	-0.16	-0.44	-0.09	CAPDN										
(-0.25, 1.17) (-0.45, 0.97) (-0.19, 1.13) (-0.51, 0.89) (-3.89, 4.97) (-0.25, 1.50)	(-0.82, 0.50)	(-1.02, 0.29)	(-0.76, 0.44)	(-1.08, 0.20)	(-4.51, 4.33)	GADEN		_								
(-0.25, 1.17)   (-0.45, 0.97)   (-0.19, 1.13)   (-0.51, 0.89)   (-3.89, 4.97)   (-0.25, 1.50)   (-0.21	0.46	0.26	0.47	0.19	0.54	0.63	VETAM									
(-0.71, 1.14)   (-0.91, 0.93)   (-0.66, 1.10)   (-0.98, 0.85)   (-4.18, 4.76)   (-0.68, 1.43)   (-1.34, 0.84)   LANW    (-1.46, 1.09)   (-1.66, 0.88)   (-1.42, 1.06)   (-1.73, 0.80)   (-4.66, 4.44)   (-1.39, 1.35)   (-2.05, 0.75)   (-1.27, 0.47)   LAWNB   (-0.02)	(-0.25, 1.17)	(-0.45, 0.97)	(-0.19, 1.13)	(-0.51, 0.89)	(-3.89, 4.97)	(-0.25, 1.50)	KETAM		_							
(-0.71, 1.14)   (-0.91, 0.93)   (-0.66, 1.10)   (-0.98, 0.85)   (-4.18, 4.76)   (-0.68, 1.43)   (-1.34, 0.84)   (-1.44, 1.09)   (-1.66, 0.88)   (-1.42, 1.06)   (-1.73, 0.80)   (-4.66, 4.44)   (-1.39, 1.35)   (-2.05, 0.75)   (-1.27, 0.47)   LAWNB   (-0.75, 0.30)   (-0.23   -0.02   -0.33   -0.02   -0.33   0.04   (-0.44, 0.91)   (-0.43, 1.09)   (-0.63, 0.89)   (-0.37, 1.05)   (-0.69, 0.80)   (-4.03, 4.84)   (-0.42, 1.41)   (-0.63, 0.37)   (-1.01, 1.24)   (-0.91, 1.94)   (-0.47, 1.18)   NEFPM   (-0.90, 0.23)   (-1.10, 0.02)   (-0.82, 0.16)   (-1.16, -0.07)   (-4.67, 4.15)   (-0.93, 0.59)   (-1.61, 0.01)   (-1.55, 0.45)   (-1.48, 1.18)   (-0.96, 0.34)   (-1.52, 0.18)   NERBL   (-0.57, 0.20)   (-0.76, -0.01)   (-0.44, 0.09)   (-0.81, -0.11)   (-4.49, 4.28)   (-0.66, 0.61)   (-1.34, 0.04)   (-1.34, 0.04)   (-1.34, 0.04)   (-1.34, 0.51)   (-1.26, 1.26)   (-0.66, 0.34)   (-1.26, 0.23)   (-0.38, 0.69)   (-0.88, 0.69)   (-0.88, 0.69)   (-1.03, 0.48)   (-0.78, 0.64)   (-1.09, 0.40)   (-4.43, 4.44)   (-0.82, 1.00)   (-1.49, 0.42)   (-1.41, 0.83)   (-1.41, 0.83)   (-1.31, 1.53)   (-0.80, 0.70)   (-0.59, 0.79)   (-0.59, 0.81)   (-0.59, 0.85)   (-0.88, 1.11)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (-0.88, 0.70)   (-0.88, 0.70)   (-0.88, 0.70)   (-0.88, 0.70)   (-0.63, 0.85)   (-0.88, 0.70)   (	0.21	0.01	0.22	-0.06	0.29	0.38	-0.25	I A NIVAZI								
(-1.46, 1.09) (-1.66, 0.88) (-1.42, 1.06) (-1.73, 0.80) (-4.66, 4.44) (-1.39, 1.35) (-2.05, 0.75) (-1.27, 0.47) (-1.27, 0.47) (-1.27, 0.47) (-1.27, 0.47) (-0.56, 0.51) (-0.75, 0.30) (-0.47, 0.44) (-0.81, 0.21) (-4.35, 4.46) (-0.59, 0.87) (-1.27, 0.30) (-1.22, 0.74) (-1.15, 1.48) (-0.43, 1.09) (-0.63, 0.89) (-0.37, 1.05) (-0.69, 0.80) (-4.03, 4.84) (-0.42, 1.41) (-0.63, 0.37) (-1.01, 1.24) (-0.91, 1.94) (-0.47, 1.18) (-0.47, 1.18) (-0.90, 0.23) (-1.10, 0.02) (-0.82, 0.16) (-1.16, -0.07) (-4.67, 4.15) (-0.93, 0.59) (-1.61, 0.01) (-1.55, 0.45) (-1.48, 1.18) (-0.96, 0.34) (-1.52, 0.18) (-0.57, 0.20) (-0.76, -0.01) (-0.44, 0.09) (-0.81, -0.11) (-4.49, 4.28) (-0.66, 0.61) (-1.34, 0.04) (-1.31, 0.51) (-1.26, 1.26) (-0.66, 0.34) (-1.26, 0.23) (-0.38, 0.69) (-0.84, 0.69) (-1.03, 0.48) (-0.78, 0.64) (-1.09, 0.40) (-4.43, 4.44) (-0.82, 1.00) (-1.49, 0.42) (-1.41, 0.83) (-1.31, 1.53) (-0.80, 0.70) (-1.33, 0.59) (-0.58, 1.11) (-0.63, 0.85) (-0.90, 0.20) (-0.88, 0.64) (-1.09, 0.40) (-4.43, 4.44) (-0.82, 1.00) (-1.49, 0.42) (-1.41, 0.83) (-1.31, 1.53) (-0.80, 0.70) (-1.33, 0.59) (-0.58, 1.11) (-0.63, 0.85) (-0.90, 0.20) (-0.88, 0.64) (-1.09, 0.40) (-4.43, 4.44) (-0.82, 1.00) (-1.49, 0.42) (-1.41, 0.83) (-1.31, 1.53) (-0.80, 0.70) (-1.39, 0.59) (-0.58, 1.11) (-0.63, 0.85) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.85) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.85) (-0.80, 0.70) (-0.80, 0.85) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.85) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.85) (-0.80, 0.85) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.85) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.85) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.85) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.85) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.70) (-0.80, 0.80) (-0.80, 0.70) (-0.80, 0.70)	(-0.71, 1.14)	(-0.91, 0.93)	(-0.66, 1.10)	(-0.98, 0.85)	(-4.18, 4.76)	(-0.68, 1.43)	(-1.34, 0.84)	LANVI		_						
(-1.46, 1.09) (-1.66, 0.88) (-1.42, 1.06) (-1.73, 0.80) (-4.66, 4.44) (-1.39, 1.35) (-2.05, 0.75) (-1.27, 0.47)  -0.02	-0.19	-0.39	-0.18	-0.46	-0.11	-0.02	-0.65	-0.40	I AMAID							
(-0.56, 0.51) (-0.75, 0.30) (-0.47, 0.44) (-0.81, 0.21) (-4.35, 4.46) (-0.59, 0.87) (-1.27, 0.30) (-1.22, 0.74) (-1.15, 1.48) LAWPC  0.33	(-1.46, 1.09)	(-1.66, 0.88)	(-1.42, 1.06)	(-1.73, 0.80)	(-4.66, 4.44)	(-1.39, 1.35)	(-2.05, 0.75)	(-1.27, 0.47)	LAWIND		_					
(-0.56, 0.51)   (-0.75, 0.30)   (-0.47, 0.44)   (-0.81, 0.21)   (-4.35, 4.46)   (-0.59, 0.87)   (-1.27, 0.30)   (-1.22, 0.74)   (-1.15, 1.48)	-0.02	-0.23	-0.02	-0.30	0.05	0.14	-0.49	-0.24	0.16	LAWDO						
(-0.43, 1.09) (-0.63, 0.89) (-0.37, 1.05) (-0.69, 0.80) (-4.03, 4.84) (-0.42, 1.41) (-0.63, 0.37) (-1.01, 1.24) (-0.91, 1.94) (-0.47, 1.18) NEFPM  (-0.34	(-0.56, 0.51)	(-0.75, 0.30)	(-0.47, 0.44)	(-0.81, 0.21)	(-4.35, 4.46)	(-0.59, 0.87)	(-1.27, 0.30)	(-1.22, 0.74)	(-1.15, 1.48)	LAVVPC						
(-0.43, 1.09) (-0.63, 0.89) (-0.37, 1.05) (-0.69, 0.80) (-4.03, 4.84) (-0.42, 1.41) (-0.63, 0.37) (-1.01, 1.24) (-0.91, 1.94) (-0.47, 1.18) (-0.47, 1.18) (-0.91, 0.24) (-0.91, 0.23) (-1.10, 0.02) (-0.82, 0.16) (-1.16, -0.07) (-4.67, 4.15) (-0.93, 0.59) (-1.61, 0.01) (-1.55, 0.45) (-1.48, 1.18) (-0.96, 0.34) (-1.52, 0.18) (-0.96, 0.34) (-1.52, 0.18) (-0.97, 0.20) (-0.76, -0.01) (-0.76, -0.01) (-0.44, 0.09) (-0.81, -0.11) (-4.49, 4.28) (-0.66, 0.61) (-1.34, 0.04) (-1.31, 0.51) (-1.26, 1.26) (-0.66, 0.34) (-1.26, 0.23) (-0.38, 0.69) (-0.84, 0.69) (-1.03, 0.48) (-0.78, 0.64) (-1.09, 0.40) (-4.43, 4.44) (-0.82, 1.00) (-1.49, 0.42) (-1.41, 0.83) (-1.31, 1.53) (-0.80, 0.70) (-1.39, 0.59) (-0.58, 1.11) (-0.63, 0.85) (-0.98, 0.98) (-0.98, 0.98) (-0.98, 0.98) (-0.98, 0.99	0.33	0.13	0.34	0.06	0.41	0.49	-0.13	0.12	0.52	0.35	NEEDM					
(-0.90, 0.23) (-1.10, 0.02) (-0.82, 0.16) (-1.16, -0.07) (-4.67, 4.15) (-0.93, 0.59) (-1.61, 0.01) (-1.55, 0.45) (-1.48, 1.18) (-0.96, 0.34) (-1.52, 0.18) NERBL  (-0.19	(-0.43, 1.09)	(-0.63, 0.89)	(-0.37, 1.05)	(-0.69, 0.80)	(-4.03, 4.84)	(-0.42, 1.41)	(-0.63, 0.37)	(-1.01, 1.24)	(-0.91, 1.94)	(-0.47, 1.18)	NEFPM					
Co.90, 0.23  (-1.10, 0.02)   (-0.82, 0.16)   (-1.16, -0.07)   (-4.67, 4.15)   (-0.93, 0.59)   (-1.61, 0.01)   (-1.55, 0.45)   (-1.48, 1.18)   (-0.96, 0.34)   (-1.52, 0.18)	-0.34	-0.54	-0.33	-0.61	-0.26	-0.17	-0.80	-0.55	-0.15	-0.31	-0.67	NEDDI				
(-0.57, 0.20) (-0.76, -0.01) (-0.44, 0.09) (-0.81, -0.11) (-4.49, 4.28) (-0.66, 0.61) (-1.34, 0.04) (-1.31, 0.51) (-1.26, 1.26) (-0.66, 0.34) (-1.26, 0.23) (-0.38, 0.69) -0.08	(-0.90, 0.23)	(-1.10, 0.02)	(-0.82, 0.16)	(-1.16, -0.07)	(-4.67, 4.15)	(-0.93, 0.59)	(-1.61, 0.01)	(-1.55, 0.45)	(-1.48, 1.18)	(-0.96, 0.34)	(-1.52, 0.18)	NEKDL				
(-0.57, 0.20)   (-0.76, -0.01)   (-0.44, 0.09)   (-0.81, -0.11)   (-4.49, 4.28)   (-0.66, 0.61)   (-1.34, 0.04)   (-1.31, 0.51)   (-1.26, 1.26)   (-0.66, 0.34)   (-1.26, 0.23)   (-0.38, 0.69)     (-0.84, 0.69)   (-0.84, 0.69)   (-1.03, 0.48)   (-0.78, 0.64)   (-1.09, 0.40)   (-4.43, 4.44)   (-0.82, 1.00)   (-1.44, 0.82)   (-1.41, 0.83)   (-1.31, 1.53)   (-0.80, 0.70)   (-1.39, 0.59)   (-0.58, 1.11)   (-0.63, 0.85)     (-0.66, 0.34)   (-0.78, 0.64)   (-0.78, 0.64)   (-0.84, 0.69)   (-0.84	-0.19	-0.39	-0.18	-0.46	-0.11	-0.02	-0.65	-0.40	0.00	-0.16	-0.51	0.15	NEDDO			
(-0.84, 0.69) (-1.03, 0.48) (-0.78, 0.64) (-1.09, 0.40) (-4.43, 4.44) (-0.82, 1.00) (-1.49, 0.42) (-1.41, 0.83) (-1.31, 1.53) (-0.80, 0.70) (-1.39, 0.59) (-0.58, 1.11) (-0.63, 0.85) OPIPO	(-0.57, 0.20)	(-0.76, -0.01)	(-0.44, 0.09)	(-0.81, -0.11)	(-4.49, 4.28)	(-0.66, 0.61)	(-1.34, 0.04)	(-1.31, 0.51)	(-1.26, 1.26)	(-0.66, 0.34)	(-1.26, 0.23)	(-0.38, 0.69)	NSDPO			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	-0.08	-0.28	-0.07	-0.35	0.00	0.09	-0.54	-0.29	0.11	-0.05	-0.40	0.26	0.11	ODIDO		
-0.08   -0.28   -0.07   -0.35   0.00   0.09   -0.54   -0.29   0.11   -0.05   -0.40   0.26   0.11   0.00   DOLUM	(-0.84, 0.69)	(-1.03, 0.48)	(-0.78, 0.64)	(-1.09, 0.40)	(-4.43, 4.44)	(-0.82, 1.00)	(-1.49, 0.42)	(-1.41, 0.83)	(-1.31, 1.53)	(-0.80, 0.70)	(-1.39, 0.59)	(-0.58, 1.11)	(-0.63, 0.85)	UPIPU		
	-0.08	-0.28	-0.07	-0.35	0.00	0.09	-0.54	-0.29	0.11	-0.05	-0.40	0.26	0.11	0.00	PCANB	
$   (-0.51, \ 0.36)   (-0.70, \ 0.15)   (-0.70, \ 0.15)   (-0.40, \ 0.27)   (-0.76, \ 0.06)   (-4.39, \ 4.39)   (-0.58, \ 0.76)   (-1.26, \ 0.18)   (-1.22, \ 0.64)   (-1.16, \ 1.39)   (-0.46, \ 0.36)   (-1.17, \ 0.37)   (-0.31, \ 0.84)   (-0.28, \ 0.51)   (-0.62, \ 0.62)                                      $	(-0.51, 0.36)	(-0.70, 0.15)	(-0.40, 0.27)	(-0.76, 0.06)	(-4.39, 4.39)	(-0.58, 0.76)	(-1.26, 0.18)	(-1.22, 0.64)	(-1.16, 1.39)	(-0.46, 0.36)	(-1.17, 0.37)	(-0.31, 0.84)	(-0.28, 0.51)	(-0.62, 0.62)	PUAND	
-0.04   -0.24   -0.03   <b>-0.31</b>   0.04   0.13   -0.50   -0.25   0.15   -0.01   -0.37   0.30   0.15   0.04   0.04   181	-0.04	-0.24	-0.03	-0.31	0.04	0.13	-0.50	-0.25	0.15	-0.01	-0.37	0.30	0.15	0.04	0.04	USUAL
$ \left  \left( -0.34,\ 0.26 \right) \right  \left( -0.53,\ 0.05 \right) \left  \left( -0.14,\ 0.08 \right) \right  \left  \left( -0.57,\ -0.05 \right) \right  \left( -4.34,\ 4.42 \right) \left  \left( -0.46,\ 0.71 \right) \right  \left( -1.15,\ 0.15 \right) \left  \left( -1.13,\ 0.63 \right) \right  \left( -1.09,\ 1.39 \right) \left  \left( -0.45,\ 0.43 \right) \right  \left( -1.07,\ 0.33 \right) \left  \left( -0.18,\ 0.78 \right) \right  \left( -0.09,\ 0.39 \right) \left  \left( -0.66,\ 0.74 \right) \right  \left( -0.28,\ 0.35 \right) \right  $	(-0.34, 0.26)	(-0.53, 0.05)	(-0.14, 0.08)	(-0.57, -0.05)	(-4.34, 4.42)	(-0.46, 0.71)	(-1.15, 0.15)	(-1.13, 0.63)	(-1.09, 1.39)	(-0.45, 0.43)	(-1.07, 0.33)	(-0.18, 0.78)	(-0.09, 0.39)	(-0.66, 0.74)	(-0.28, 0.35)	USUAL

Footnote: Results are mean difference (95% CI) from the network meta-analysis. For each comparison (column vs. row) a mean difference < 0 indicates the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (CORWI); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 20: Direct and Indirect estimates of treatment effect for pain intensity (0-10cm VAS) at 6 to 12 months follow-up after Knee/Hip replacement surgery

comparison	k	prop	direct	indir.	Diff	Z	p-value
LAWPC: PCANB	1	0.69	0	-0.16	0.16	0.36	0.72
LAWPC: USUAL	1	0.46	-0.1	0.06	-0.16	-0.36	0.72
PCANB: USUAL	4	0.85	0.06	-0.1	0.16	0.36	0.72

All the evidence comes from trials which directly compare them. Significant inconsistency P value means estimates from direct and indirect comparison are statistically different. P value for global test of inconsistency = 0.720

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

**k** - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (MD) derived from direct evidence; **indir**.- Estimated treatment effect (MD) derived from indirect evidence; **Diff** - Difference between direct and indirect treatment estimates; **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: PCA-LAWI (LAWPC); PCA-NB (PCANB); Usual care (USUAL)

Table 21: Network meta-analysis results for pain intensity (0-10cm VAS) at 6 to 12 months follow-up after Knee replacement surgery

CHXZN														
0.13	COOPW													
(-0.50, 0.76)			1											
-0.08	-0.21	CORIV												
· · ·	(-0.52, 0.10)			1										
0.20	0.07	0.28	CORWI											
(-0.42, 0.82)	(-0.32, 0.46)	(0.00, 0.57)	COMM		•									
-0.24	-0.37	-0.16	-0.44	GABPN										
(-1.05, 0.58)	(-1.02, 0.29)	(-0.75, 0.44)	(-1.08, 0.20)	GADIN		•								
0.39	0.26	0.47	0.19	0.63	KETAM									
(-0.47, 1.25)	(-0.45, 0.97)	(-0.19, 1.13)	(-0.51, 0.89)	(-0.25, 1.50)	KETANI		1							
0.14	0.01	0.22	-0.06	0.38	-0.25	LANWI								
(-0.90, 1.18)	(-0.91, 0.93)	(-0.66, 1.10)	(-0.98, 0.85)	(-0.68, 1.43)	(-1.34, 0.84)	LANVI		-						
-0.26	-0.39	-0.18	-0.46	-0.02	-0.65	-0.40	LAWNB							
(-1.62, 1.10)	(-1.66, 0.88)	(-1.42, 1.06)	(-1.73, 0.80)	(-1.39, 1.35)	(-2.05, 0.75)	(-1.27, 0.47)	LAWND							
-0.11	-0.24	-0.02	-0.31	0.13	-0.50	-0.25	0.15	LAWPC						
(-0.82, 0.61)	(-0.76, 0.29)	(-0.48, 0.43)	(-0.82, 0.21)	(-0.61, 0.87)	(-1.28, 0.29)	(-1.23, 0.74)	(-1.16, 1.47)	LAWFC						
0.26	0.13	0.34	0.06	0.49	-0.13	0.12	0.52	0.36	NEFPM					
(-0.64, 1.16)	(-0.63, 0.89)	(-0.37, 1.05)	(-0.69, 0.80)	(-0.42, 1.41)	(-0.63, 0.37)	(-1.01, 1.24)	(-0.91, 1.94)	(-0.47, 1.19)	IVEFFIVI					
-0.41	-0.54	-0.33	-0.61	-0.17	-0.80	-0.55	-0.15	-0.30	-0.67	NERBL				
(-1.15, 0.33)	(-1.10, 0.02)	(-0.82, 0.16)	(-1.16, -0.07)	(-0.93, 0.59)	(-1.61, 0.01)	(-1.55, 0.45)	(-1.48, 1.18)	(-0.96, 0.35)	(-1.52, 0.18)	NENDE				
0.50	0.37	0.58	0.30	0.74	0.11	0.36	0.76	0.61	0.24	0.91	NSDPO			
(-0.61, 1.61)	(-0.62, 1.36)	(-0.38, 1.54)	(-0.69, 1.28)	(-0.38, 1.85)	(-1.04, 1.26)	(-0.93, 1.65)	(-0.80, 2.32)	(-0.44, 1.65)	(-0.94, 1.42)	(-0.15, 1.97)	NSDFO			
-0.16	-0.29	-0.08	-0.36	0.07	-0.55	-0.30	0.10	-0.06	-0.42	0.25	-0.66	OPIPO		
(-1.07, 0.74)	(-1.05, 0.47)	(-0.80, 0.63)	(-1.11, 0.39)	(-0.84, 0.99)	(-1.51, 0.41)	(-1.43, 0.82)	(-1.33, 1.52)	(-0.80, 0.69)	(-1.41, 0.58)	(-0.60, 1.10)	(-1.84, 0.52)	OPIPO		
-0.16	-0.29	-0.08	-0.36	0.07	-0.55	-0.30	0.10	-0.06	-0.42	0.25	-0.66	0.00	PCANB	
(-0.81, 0.49)	(-0.73, 0.14)	(-0.43, 0.27)	(-0.78, 0.05)	(-0.60, 0.75)	(-1.28, 0.17)	(-1.24, 0.63)	(-1.18, 1.38)	(-0.47, 0.35)	(-1.19, 0.36)	(-0.33, 0.83)	(-1.67, 0.34)	(-0.62, 0.62)	PCAIND	
-0.11	-0.24	-0.03	-0.31	0.13	-0.50	-0.25	0.15	-0.00	-0.37	0.30	-0.61	0.05	0.05	USUAL
(-0.68, 0.46)	(-0.53, 0.05)	(-0.14, 0.09)	(-0.57, -0.05)	(-0.46, 0.71)	(-1.15, 0.15)	(-1.13, 0.63)	(-1.09, 1.39)	(-0.45, 0.44)	(-1.07, 0.33)	(-0.18, 0.78)	(-1.56, 0.34)	(-0.65, 0.76)	(-0.28, 0.38)	USUAL

Footnote: Results are mean difference (95% CI) from the network meta-analysis. For each comparison (column vs. row) a mean difference < 0 indicates the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LAWNB); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 22: Direct and Indirect estimates of treatment effect for pain intensity (0-10cm VAS) at 6 to 12 months follow-up after Knee replacement surgery

comparison	k	prop	direct	indir.	Diff	Z	p-value
LAWPC: PCANB	1	0.69	0	-0.18	0.18	0.4	0.69
LAWPC: USUAL	1	0.47	-0.1	80.0	-0.18	-0.4	0.69
PCANB: USUAL	3	0.84	0.08	-0.1	0.18	0.4	0.69

All the evidence comes from trials which directly compare them. Significant inconsistency P value means estimates from direct and indirect comparison are statistically different. P value for global test of inconsistency = 0.690

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

**k** - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (MD) derived from direct evidence; **indir**.- Estimated treatment effect (MD) derived from indirect evidence; **Diff** - Difference between direct and indirect treatment estimates; **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: PCA-LAWI (LAWPC); PCA-NB (PCANB); Usual care (USUAL)

Table 23: Network meta-analysis results for pain intensity (0-10cm VAS) at 6 to 12 months follow-up after hip replacement surgery

CHXZN				
0.58	CORIV			
(-2.61, 3.77)	CORIV		_	
-0.21	-0.79	NSDPO		
(-0.64, 0.22)	(-3.97, 2.39)	NSDFO		
0.13	-0.45	0.34	PCANB	
(-1.06, 1.32)	(-3.82, 2.92)	(-0.83, 1.51)	PCAND	
-0.01	-0.59	0.20	-0.14	USUAL
(-0.36, 0.34)	(-3.76, 2.58)	(-0.05, 0.45)	(-1.28, 1.00)	USUAL

Footnote: Results are mean difference (95% CI) from the network meta-analysis. For each comparison (column vs. row) a mean difference < 0 indicates the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Chlorzoxazone (CHXZN); Corticosteroid (IV) (CORIV); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); PCA-NB (PCANB); Usual care (USUAL)

Table 24: Network meta-analysis results for physical function (0-100 PCS score) after Knee/Hip replacement surgery

a																				
CHXZN		_																		
-1.82	COOPW																			
(-9.07, 5.42)			1																	
-2.97	-1.15	CORES																		
(-10.67, 4.73)		0.00		1																
-2.36 (-9.53, 4.82)	-0.53	0.62	CORIV																	
-3.65	(-4.68, 3.61) -1.82	-0.67	-1.29																	
(-10.49, 3.19)		(-5.07, 3.72)	(-4.13, 1.55)	CORWI																
-2.10	-0.28	0.87	0.25	1.54		İ														
	(-4.48, 3.92)	(-4.08, 5.82)		(-1.91, 5.00)	DEXMT															
-3.86	-2.03	-0.88	-1.50	-0.21	-1.75	B.III 6.V	]													
(-10.97, 3.26)	(-6.07, 2.00)	(-5.69, 3.93)	(-5.42, 2.41)	(-3.47, 3.05)	(-5.73, 2.22)	DULOX														
-1.20	0.62	1.77	1.15	2.44	0.90	2.65	EPNPW													
(-8.41, 6.01)	(-3.58, 4.82)	(-3.18, 6.72)	(-2.93, 5.24)	(-1.01, 5.90)	(-1.98, 3.78)	(-1.32, 6.63)	EPINPW													
-0.10	1.72	2.88	2.26	3.55	2.00	3.76	1.10	GABPN												
	(-2.17, 5.62)		(-1.52, 6.03)	( 0.47, 6.63)	(-1.83, 5.84)	( 0.11, 7.41)	(-2.73, 4.94)			7										
-12.27	-10.45	-9.30	-9.92	-8.63	-10.17	-8.42	-11.07	-12.17	KETAM											
(-20.89, -3.65)		(-16.14, -2.46)	-	(-14.48, -2.77)		(-14.59, -2.24)					1									
0.36	2.18	3.33	2.71	4.00	2.46	4.21	1.56	0.46	12.63	LANWI										
(-8.80, 9.52)	(-4.86, 9.22) -1.91	(-4.18, 10.84)	(-4.25, 9.68) -1.38	(-2.62, 10.62)	( -4.54, 9.46) -1.63	(-2.69, 11.12) 0.12	(-5.44, 8.56)	(-6.37, 7.28)	( 4.18, 21.08) 8.54	4.00		l								
(-11.92, 4.46)		-0.76 (-7.05, 5.53)	(-7.02, 4.26)	(-5.29, 5.12)	(-7.31, 4.05)	(-5.43, 5.68)	(-8.21, 3.15)	(-9.09, 1.82)	( 1.15, 15.93)	-4.09 (-12.10, 3.92)	LAWPC									
-1.50	0.32	1.47	0.85	2.14	0.60	2.35	-0.30	-1.40	10.77	-1.86	2.23		1							
	(-6.33, 6.97)			(-4.07, 8.35)		(-4.16, 8.87)		(-7.83, 5.02)	( 2.64, 18.90)		(-5.44, 9.90)	MULTC								
-7.36	-5.54	-4.39	-5.01	-3.72	-5.26	-3.50	-6.16	-7.26	4.91	-7.72	-3.63	-5.86								
(-16.73, 2.00)	(-12.84, 1.76)	(-12.15, 3.37)	(-12.24, 2.23)	(-10.62, 3.19)	(-12.53, 2.01)	(-10.68, 3.67)	(-13.43, 1.11)	(-14.36, -0.16)	(-3.76, 13.58)	(-16.92, 1.48)	(-11.87, 4.61)	(-14.77, 3.05)	MULTI							
-7.54	-5.72	-4.57	-5.19	-3.90	-5.44	-3.69	-6.34	-7.44	4.73	-7.90	-3.81	-6.04	-0.18	NEEDM	1					
(-16.43, 1.34)	(-12.40, 0.96)	(-11.74, 2.60)	(-11.79, 1.42)	(-10.13, 2.34)	(-12.08, 1.20)	(-10.22, 2.85)	(-12.98, 0.30)	(-13.90, -0.99)	(-2.30, 11.76)	(-16.61, 0.81)	(-11.50, 3.88)	(-14.45, 2.37)	(-9.11, 8.75)	NEFPM		_				
-6.19	-4.36	-3.21	-3.83	-2.54	-4.08	-2.33	-4.98	-6.09	6.09	-6.54	-2.45	-4.68	1.18	1.36	NERBL					
	(-10.60, 1.87)			(-8.30, 3.22)							(-9.77, 4.86)		(-3.18, 5.54)							
-1.43	0.40	1.55	0.93	2.22	0.68	2.43	-0.22	-1.33	10.85	-1.78	2.31	0.08	5.94	6.12	4.76	NSDPO				
(-8.27, 5.42)		(-2.85, 5.94)	(-2.46, 4.32)	(-0.38, 4.82)	(-2.78, 4.14)	(-0.83, 5.69)	(-3.68, 3.23)	(-3.89, 1.23)	( 4.99, 16.70)	(-8.40, 4.84)	(-2.90, 7.51)	(-6.13, 6.29)	(-0.97, 12.84)	(-0.12, 12.35)	(-1.00, 10.52)			1		
-4.33	-2.51	-1.36	-1.97	-0.68	-2.23	-0.47	-3.13	-4.23	7.94	-4.69	-0.60	-2.83	3.03	3.21	1.86	-2.90	OPESP			
-1.73	(-11.68, 6.67) 0.09	1.24	(-11.10, 7.15) 0.63	(-9.54, 8.18) 1.92	(-11.38, 6.92) 0.37	(-9.55, 8.60) 2.13	(-12.27, 6.02) -0.53	-1.63	(-2.35, 18.24) 10.54	(-15.44, 6.06) -2.09	(-10.54, 9.34) 2.00	(-13.33, 7.68) -0.23	( -4.87, 10.94) 5.63	(-7.31, 13.73) 5.81	(-6.48, 10.20) 4.46	(-11.76, 5.96) -0.30	2.60			
	(-3.86, 4.05)	(-3.50, 5.99)		(-1.24, 5.08)		(-1.59, 5.85)		(-5.20, 1.94)			(-2.79, 6.79)		(-1.50, 12.77)	5.81 (-0.68, 12.30)		(-3.47, 2.86)		PCANB		
-1.54	0.28	1.44	0.82	2.11	0.56	2.32	-0.34	-1.44	10.73	-1.90	2.19	-0.04	5.82	6.00	4.65	-0.11	2.79	0.19		
	(-3.83, 4.40)	(-3.44, 6.31)		(-1.24, 5.46)	(-3.49, 4.62)	(-0.88, 5.52)		(-5.18, 2.30)			(-3.42, 7.81)					(-3.47, 3.24)		1	PREGB	
-1.50	0.32	1.47	0.85	2.14	0.60	2.35	-0.30	-1.40	10.77	-1.86	2.23	0.00	5.86	6.04	4.68	-0.08	2.83	0.23	0.04	
									_		_							(-2.34, 2.80)		USUAL
																	,			

Footnote: Results are mean difference (95% CI) from the network meta-analysis. For each comparison (column vs. row) a mean difference > 0 indicates the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LAWWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 25: Direct and Indirect estimates of treatment effect for physical function (0-100 PCS score) after Knee/Hip replacement surgery

comparison	k	prop	direct	indir.	Diff	Z	p-value
CORIV:CORWI	1	0.57	-2.55	0.35	-2.9	-0.99	0.321
CORIV:USUAL	3	0.55	2.16	-0.74	2.9	0.99	0.321
CORWI:USUAL	5	0.88	1.81	4.71	-2.9	-0.99	0.321
DULOX:PREGB	1	0.77	0.7	7.79	-7.09	-1.82	0.068
DULOX:USUAL	3	0.96	2.56	-2.14	4.7	0.7	0.486
GABPN:NSDPO	1	0.77	-1.06	-2.24	1.18	0.38	0.705
GABPN:USUAL	2	0.87	-1.53	-0.55	-0.97	-0.26	0.797
LAWPC:PCANB	1	0.59	4.2	-1.13	5.33	1.07	0.283
LAWPC:USUAL	1	0.49	-0.5	4.83	-5.33	-1.07	0.283
MULTI:NERBL	1	0.93	1.75	-6.76	8.51	0.96	0.337
MULTI:OPESP	1	0.71	0.54	9.05	-8.51	-0.96	0.337
NERBL:USUAL	1	0.89	5.63	-2.88	8.51	0.96	0.337
NSDPO:USUAL	4	0.98	-0.02	-2.24	2.21	0.36	0.722
OPESP:USUAL	1	0.47	-1.66	6.85	-8.51	-0.96	0.337
PCANB:USUAL	4	0.92	0.63	-4.7	5.33	1.07	0.283
PREGB:USUAL	2	0.94	-0.68	11.79	-12.46	-2.02	0.043

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

k - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (MD) derived from direct evidence; **indir**.- Estimated treatment effect (MD) derived from indirect evidence; **Diff** - Difference between direct and indirect treatment estimates; **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 26: Network meta-analysis results for physical function (0-100 PCS score) after Knee replacement surgery

CHXZN																		
-2.22	COOPW	İ																
(-13.50, 9.06)	COOFW		•															
-3.37	-1.15	CORES																
(-14.95, 8.21)				,														
-3.56	-1.34	-0.19	CORIV															
(-14.58, 7.45)	,	,			1													
-4.34	-2.12	-0.97	-0.77	CORWI														
(-15.01, 6.33)		(-6.56, 4.63)	(-4.41, 2.86)	COMM		1												
-2.50	-0.28	0.87	1.06	1.84	DEXMT													
(-13.76, 8.76)		(-5.78, 7.52)		(-3.06, 6.73)			1											
-5.11	-2.89	-1.73	-1.54	-0.77	-2.61	DULOX												
(-16.08, 5.87)	(-8.45, 2.68)	(-7.89, 4.42)	, ,	,	(-8.13, 2.92)													
-1.60	0.62	1.77	1.96	2.74	0.90	3.51	EPNPW											
(-12.86, 9.66)						(-2.02, 9.03)												
-0.51	1.71	2.86	3.05	3.82	1.99	4.59	1.09	GABPN										
(-11.48, 10.45)	(-3.85, 7.26)	(-3.29, 9.00)	(-1.95, 8.05)	(-0.36, 8.01)	(-3.53, 7.50)	(-0.31, 9.50)	(-4.43, 6.60)	OADI N		•								
-12.67	-10.45	-9.30	-9.11	-8.33	-10.17	-7.56	-11.07	-12.16	KETAM									
(-24.88, -0.46)			, ,		, ,	,	, ,	, ,										
-0.04	2.18	3.33	3.52	4.30	2.46	5.07	1.56	0.47	12.63	LANWI								
(-12.63, 12.55)	, ,	, ,	, ,	(-3.18, 11.77)	,	,	(-6.73, 9.85)	(-7.42, 8.36)	( 3.09, 22.17)			1						
-3.84	-1.62	-0.47	-0.27	0.50	-1.34	1.27	-2.24	-3.32	8.83	-3.80	LAWPC							
(-15.60, 7.93)		(-7.94, 7.01)								(-12.76, 5.17)			1					
-1.90	0.32	1.47	1.66	2.44	0.60	3.21	-0.30	-1.39	10.77	-1.86	1.94	MULTC						
(-14.28, 10.48)		(-6.95, 9.89)	(-5.96, 9.29)	(-4.67, 9.55)		(-4.35, 10.76)				(-11.63, 7.91)								
-7.94	-5.72	-4.57	-4.38	-3.60	-5.44	-2.83	-6.34	-7.43	4.73	-7.90	-4.10	-6.04	NEFPM					
		(-13.01, 3.87)			(-13.43, 2.55)							(-15.55, 3.47)	N.E.I.I.I		1			
-7.53	-5.31	-4.16	-3.97	-3.19	-5.03	-2.42	-5.93	-7.02	5.14	-7.49	-3.69	-5.63	0.41	NERBL				
		(-12.48, 4.16)								(-17.17, 2.19)								
-2.11	0.11	1.26	1.46	2.23	0.39	3.00	-0.51	-1.60	10.56	-2.07	1.73	-0.21	5.83	5.42	NSDPO			
(-12.96, 8.74)				(-1.64, 6.10)	-				1	(-9.80, 5.66)								
-1.68	0.54	1.69	1.88	2.66	0.82	3.43	-0.08	-1.17	10.99	-1.64	2.16	0.22	6.26	5.85	0.43	PCANB		
(-12.63, 9.28)				(-1.50, 6.81)		(-1.45, 8.31)			-	(-9.52, 6.24)			(-1.30, 13.82)					
-2.94	-0.72	0.43	0.62	1.40	-0.44	2.16	-1.34	-2.43	9.73	-2.90	0.89	-1.04	5.00	4.59	-0.83	-1.26	PREGB	
(-14.26, 8.38)		,	, , ,	(-3.65, 6.44)	, ,	,	, ,	` '	, ,	(-11.28, 5.48)		,	, ,	, ,	,	,		
-1.90	0.32	1.47	1.66	2.44	0.60	3.21	-0.30	-1.39	10.77	-1.86	1.94	0.00	6.04	5.63	0.21	-0.22	1.04	USUAL
(-12.31, 8.51)	(-4.03, 4.67)	(-3.61, 6.55)	(-1.95, 5.28)	( 0.09, 4.79)	(-3.69, 4.89)	(-0.27, 6.68)	(-4.59, 3.99)	(-4.85, 2.07)	( 4.39, 17.15)	(-8.95, 5.23)	(-3.55, 7.42)	(-6.71, 6.71)	(-0.70, 12.78)	(-0.96, 12.22)	(-2.86, 3.28)	(-3.65, 3.20)	-3.42, 5.50)	/

Footnote: Results are mean difference (95% CI) from the network meta-analysis. For each comparison (column vs. row) a mean difference > 0 indicates the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LAWWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 27: Direct and Indirect estimates of treatment effect for physical function (0-100 PCS score) after Knee replacement surgery

comparison	k	prop	direct	indir.	Diff	Z	p-value
CORIV: CORWI	1	0.55	-2.55	1.38	-3.93	-1.05	0.292
CORIV: USUAL	2	0.57	3.36	-0.57	3.93	1.05	0.292
CORWI: USUAL	5	0.88	1.98	5.91	-3.93	-1.05	0.292
DULOX: PREGB	1	0.88	0.7	13.02	-12.32	-1.73	0.084
GABPN: NSDPO	1	0.77	-1.06	-3.37	2.31	0.51	0.611
GABPN: USUAL	2	0.91	-1.63	1.14	-2.77	-0.44	0.660
LAWPC: PCANB	1	0.59	4.2	-0.83	5.03	0.9	0.369
LAWPC: USUAL	1	0.52	-0.5	4.53	-5.03	-0.9	0.369
NSDPO:USUAL	3	0.96	0.32	-2.29	2.61	0.34	0.735
PCANB: USUAL	3	0.89	0.33	-4.7	5.03	0.9	0.369
PREGB: USUAL	1	0.9	-0.3	12.58	-12.88	-1.73	0.084

All the evidence comes from trials which directly compare them. Significant inconsistency P value means estimates from direct and indirect comparison are statistically different. P value for global test of inconsistency = 0.421

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

k - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (MD) derived from direct evidence; **indir**.- Estimated treatment effect (MD) derived from indirect evidence; **Diff** - Difference between direct and indirect treatment estimates; **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 28: Network meta-analysis results for physical function (0-100 PCS score) after hip replacement surgery

CHXZN					
2.47	CORIV				
(-9.55, 14.49)	CORIV		_		
-0.79	-3.26	NSDPO			
(-9.28, 7.71)	(-11.99, 5.47)	NSDFO			
-2.75	-5.22	-1.96	PCANB		
(-13.86, 8.36)	(-16.51, 6.07)	(-9.38, 5.46)	FCAND		
0.28	-2.19	1.07	3.03	PREGB	
(-9.13, 9.70)	(-11.81, 7.44)	(-3.43, 5.57)	(-5.43, 11.49)	FNEGD	
-1.19	-3.66	-0.40	1.56	-1.47	USUAL
(-9.57, 7.19)	(-12.28, 4.96)	(-1.77, 0.97)	(-5.73, 8.85)	(-5.76, 2.81)	USUAL

Footnote: Results are mean difference (95% CI) from the network meta-analysis. For each comparison (column vs. row) a mean difference > 0 indicates the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Chlorzoxazone (CHXZN); Corticosteroid (IV) (CORIV); Oral NSAID (NSDPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 29: Network meta-analysis results for all-cause drop out after Knee/Hip replacement surgery

BACLF	1																										
0.46		1																									
(0.04, 4.97)	CHXZN		,																								
0.33 (0.00,29.44)	0.72 (0.01,39.53)	COOPW																									
0.30	0.65	0.89	CORES	1																							
(0.03, 3.37)	(0.17, 2.49)	(0.02,50.28)			1																						
0.36 (0.04, 3.25)	0.77 (0.32, 1.90)	1.07 (0.02,52.98)	1.20 (0.43, 3.31)	CORIV																							
0.33	0.72	1.00	1.12	0.93	CORPO																						
0.01,11.27)	0.04,12.95)	(0.01,117.80)	1.17	0.06,14.58)	1.04		1																				
(0.03, 3.51)	(0.25, 2.32)	(0.02,54.78)	(0.34, 3.96)	(0.49, 1.94)	(0.06,17.66)	CORWI																					
0.67	1.45	2.00	2.24	1.87	2.00	1.92	cowiv																				
(0.03,16.92)	(0.12,18.10)	(0.02,191.41)	(0.17,29.27) 2.61	(0.18,19.96)	(0.05,74.84) 2.33	(0.16,22.47)	1.17		1																		
(0.04,13.95)		(0.03,175.85)	(0.31,21.72)		(0.08,64.30)	(0.31,16.27)	(0.06,23.67)	DEXMT																			
0.17	0.38	0.52	0.58	0.49	0.52	0.50	0.26	0.22 (0.03, 1.69)	DULOX																		
2.33	(0.11, 1.24) 5.07	(0.01,27.80) 7.00	(0.16, 2.10) 7.83	(0.22, 1.09) 6.54	7.00	(0.17, 1.42) 6.71	(0.02, 3.15)	3.00	13.48		1																
(0.06,91.43)	(0.24,108.33)	(0.05,920.48)	(0.35,173.84)	(0.35,123.00)	(0.13,387.95)	(0.33,136.06)	(0.08, 151.21)	(0.13,71.48)	(0.65,281.00)	EPNPW		,															
(0.03, 2.95)	0.69 (0.27, 1.76)	0.96 (0.02,47.88)	1.07 (0.38, 3.06)	0.90 (0.66, 1.21)	0.96 (0.06,15.12)	0.92 (0.44, 1.92)	0.48 (0.04, 5.19)	(0.06, 2.70)	1.85 (0.80, 4.29)	0.14 (0.01, 2.60)	GABPN																
0.26	0.56	0.77	0.86	0.72	0.77	0.74	0.38	0.33	1.48	0.11	0.80	VETAM	1														
(0.02, 2.91)		(0.01,43.30)	(0.20, 3.62)		(0.04,14.35)	(0.22, 2.52)	(0.03, 5.05)		(0.41, 5.40)	(0.00, 2.45)	(0.28, 2.31)	KETAM															
0.27 (0.03, 2.62)	0.59 (0.21, 1.64)	0.82 (0.02,41.71)	0.91 (0.30, 2.83)	0.76 (0.45, 1.28)	0.82 (0.05,13.30)	0.78 (0.33, 1.83)	0.41 (0.04, 4.58)	0.35 (0.05, 2.41)	1.57 (0.61, 4.03)	0.12 (0.01, 2.28)	0.85 (0.48, 1.51)	1.06 (0.34, 3.32)	LANWI														
0.36	0.79	1.09	1.22	1.02	1.09	1.04	0.54	0.47	2.10	0.16	1.14	1.42	1.33	LAWNB	]												
(0.02, 5.28)		(0.02,71.58)	(0.20, 7.54)	(0.22, 4.67)	(0.05,25.06)	(0.20, 5.52)	(0.03, 9.04)		(0.38,11.64)	(0.01, 4.22)	(0.24, 5.31)	(0.23, 8.83)	(0.32, 5.58)			1											
0.20 (0.02, 2.06)	0.44 (0.14, 1.38)	0.61 (0.01,32.16)	0.68 (0.20, 2.34)	0.57 (0.28, 1.17)	0.61 (0.04,10.38)	0.58 (0.22, 1.57)	0.31 (0.03, 3.60)	0.26 (0.04, 1.92)	1.18 (0.41, 3.41)	0.09 (0.00, 1.78)	0.64 (0.30, 1.36)	0.79 (0.23, 2.75)	0.75 (0.31, 1.78)	0.56 (0.11, 2.99)	LAWPC												
0.07	0.14	0.20	0.22	0.19	0.20	0.19	0.10	0.09	0.39	0.03	0.21	0.26	0.24	0.18	0.33	LIDOV											
(0.00, 2.75)	(0.01, 3.29)	(0.00,27.33)	(0.01, 5.28)	(0.01, 3.74) 0.56	(0.00,11.61) 0.60	(0.01, 4.14) 0.57	0.30	0.26	(0.02, 8.54) 1.16	0.09	0.63	0.01, 6.16)	0.73	(0.01, 5.27) 0.55	0.02, 7.10)	3.00											
(0.02, 2.19)		(0.01,33.07)	(0.17, 2.65)		(0.03,10.87)	(0.18, 1.82)	(0.02, 3.80)	(0.03, 2.06)		(0.00, 1.85)		(0.20, 3.10)	l .	(0.09, 3.26)	(0.31, 3.15)		MULTC										
1.09	2.36	3.26	3.65	3.05	3.26	3.12	1.63	1.40	6.28	0.47	3.40	4.25	3.99	2.99	5.34	16.31	5.44	MULTI									
0.07,16.10)	0.40,14.08)	(0.05,216.78) 0.82	(0.57,23.19) 0.92	0.64,14.42)	(0.14,76.18) 0.82	(0.57,17.00) 0.79	(0.10,27.54) 0.41	(0.12,15.76) 0.35	(1.10,35.83) 1.58	(0.02,12.82) 0.12	(0.70,16.39) 0.86	1.07	1.01	0.34,26.17)	1.35	(0.56,474.85) 4.11	1.37	0.25									
(0.00, 15.72)		(0.00,144.85)	(0.03,31.79)	(0.03,22.99)	(0.01,64.72)	(0.02,25.17)	(0.01,25.76)	(0.01,16.94)		(0.00,10.42)	(0.03,25.86)	(0.04,31.94)		(0.02,31.12)		(0.04,380.38)		0.01,10.53)	NEFPM								
0.42 (0.04, 5.02)	0.91 (0.22, 3.85)	1.26 (0.02,73.23)	1.41 (0.31, 6.44)	1.18 (0.38, 3.69)	1.26 (0.06,24.55)	1.21 (0.32, 4.54)	0.63 (0.05, 8.68)	0.54 (0.06, 4.78)	2.43 (0.61, 9.69)	0.18 (0.01, 4.17)	1.31 (0.41, 4.22)	1.64 (0.36, 7.55)	1.54 (0.45, 5.33)	1.16 (0.17, 7.69)	2.07	6.30 (0.26,154.95)	2.10	0.39 (0.12, 1.28)	1.53 (0.04,55.05)	NERBL							
0.29	0.64	0.88	0.99	0.83	0.88	0.85	0.44	0.38	1.70	0.13	0.92	1.15	1.08	0.81	1.45	4.42	1.47	0.27	1.08	0.70	Nonno						
(0.03, 2.70)		(0.02,43.92)	(0.35, 2.77)		(0.06,13.84)			(0.06, 2.47)		(0.01, 2.38)		(0.41, 3.26)		(0.18, 3.75)		(0.22,88.89)					NSDPO		ı				
0.06 (0.00, 1.34)	(0.01, 1.35)	0.19 (0.00,16.08)	0.22 (0.02, 2.19)	0.18 (0.02, 1.46)	0.19 (0.01, 6.05)	0.18 (0.02, 1.66)	0.10 (0.00, 2.26)	0.08 (0.01, 1.35)	0.37 (0.04, 3.46)	0.03 (0.00, 1.01)	0.20 (0.02, 1.65)	0.25 (0.02, 2.56)	(0.03 2.02)	0.18 (0.01, 2.33)	0.32 (0.04, 2.85)	0.97 (0.03,37.07)	(0.03.3.15)	0.06 (0.00, 0.79)	0.23 (0.00,12.63)	0.15 (0.01, 1.64)	0.22 (0.03, 1.77)	NSEPS					
0.26	0.57	0.79	0.88	0.73	0.79	0.75	0.39	0.34	1.51	0.11	0.82	1.02	0.96	0.72	1.29	3.93	1.31	0.24	0.96	0.62	0.89	4.07	ODEED				
(0.02, 3.57)	(0.11, 2.98)	(0.01,49.50)	(0.16, 4.93)	(0.18, 2.99)	(0.04,17.08)	(0.16, 3.57)	(0.03, 6.12)	(0.03, 3.46)	(0.30, 7.55)	(0.00, 2.89)	(0.20, 3.40)	(0.18, 5.77)	(0.22, 4.25)		(0.27, 6.16)	(0.14,107.00)		(0.04, 1.51)	(0.02,37.62)	(0.12, 3.29)	(0.22, 3.64)	(0.33,49.99)	OPESP				
0.37 (0.02, 8.67)	(0.07, 9.04)	1.12 (0.01,100.74)	1.25 (0.11,14.65)	1.05 (0.11, 9.89)	1.12 (0.03,38.74)	1.07 (0.10,11.19)	0.56 (0.02,14.57)	0.48 (0.03, 8.85)	2.16 (0.20,23.28)	0.16 (0.00, 6.41)	1.17 (0.12,11.17)	1.46 (0.12,17.13)	1.37 (0.14,13.64)	1.03 (0.07,15.41)	1.84 (0.18.19.23)	5.60 (0.13,236.01)	1.87 (0.17.21.13)	0.34 (0.02, 5.24)	1.36 (0.02,79.77)	0.89 (0.07,10.95)	1.27 (0.13,12.02)	5.80 (0.27,123.78)	1.43 (0.10,20.01)	OPIPO			
0.39	0.86	1.18	1.32	1.11	1.18	1.13	0.59	0.51	2.28	0.17	1.23	1.54	1.45	1.09	1.94	5.92	1.97	0.36	1.44	0.94	1.34	6.13	1.51	1.06	PCANB		
0.04, 3.64)	(0.34, 2.16)	(0.02,59.06)	(0.47, 3.76) 1.15	(0.83, 1.48)	(0.08,18.64) 1.03	(0.55, 2.36) 0.98	(0.05, 6.39) 0.51	(0.08, 3.33)	(0.99, 5.26) 1.98	(0.01, 3.21) 0.15	(0.85, 1.80) 1.07	1.34	(0.82, 2.55) 1.26	(0.23, 5.07)	(0.92, 4.10) 1.68	(0.29,119.65)	(0.75, 5.17) 1.71	(0.08, 1.75) 0.32	(0.05,43.45) 1.25	(0.29, 3.00) 0.81	(0.97, 1.85) 1.16	(0.75,50.06) 5.32	(0.36, 6.24) 1.31	0.11, 9.90)	0.87		
(0.04, 3.16)		(0.02,51.28)	(0.40, 3.28)	(0.71, 1.30)	(0.07,16.20)	(0.47, 2.06)	(0.05, 5.56)	(0.07, 2.89)	(0.85, 4.58)	(0.01, 2.79)	(0.72, 1.58)	(0.46, 3.85)		(0.20, 4.41)	(0.79, 3.59)	(0.25,103.94)		(0.07, 1.52)		(0.25, 2.62)		(0.65,43.52)	(0.31, 5.43)		0.87	PREGB	
0.33	0.72	1.00	1.12	0.93	1.00	0.96	0.50	0.43	1.93	0.14	1.04	1.30	1.22	0.92	1.64	5.00	1.67	0.31	1.22	0.79	1.13	5.18	1.27	0.89	0.84	0.97	USUAL
(0.04, 3.03)	(0.30, 1.76)	(0.02,49.43)	(0.41, 3.07)	(0.82, 1.06)	(0.06,15.55)	(0.48, 1.90)	(0.05, 5.32)	[(U.07, 2.76)	(0.87, 4.27)	(0.01, 2.68)	(0.79, 1.37)	(0.47, 3.62)	(0.74, 2.02)	(0.20, 4.19)	(0.81, 3.32)	(0.25,99.89)	(0.66, 4.22)	(0.07, 1.44)	(0.04,36.32)	(0.26, 2.46)	(0.93, 1.37)	(0.64,41.59)	(0.31, 5.15)	(0.09, 8.40)	U.65, 1.09) (	U./4, 1.29)	

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LAWWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 30 : Direct and Indirect estimates of treatment effect for the all-cause dropout after Knee/Hip replacement surgery and p-value for pairwise inconsistency

comparison	k	prop	direct	indir.	RoR	Z	p-value
CORIV: CORWI	1	0.37	1.2	0.86	1.39	0.45	0.65
CORIV: USUAL	4	0.99	0.93	1.30	0.72	-0.45	0.65
CORWI: USUAL	5	0.64	1.08	0.78	1.39	0.45	0.65
DULOX: PREGB	1	0.05	1.00	2.05	0.49	-0.35	0.723
DULOX:USUAL	5	0.99	1.95	0.94	2.06	0.21	0.834
GABPN: NSDPO	1	0.05	1.33	0.9	1.48	0.51	0.613
GABPN: USUAL	4	0.99	1.03	3.45	0.3	-0.8	0.422
KETAM:NEFPM	1	0.77	0.92	1.77	0.52	-0.16	0.873
LAWPC:PCANB	1	0.06	3.04	1.89	1.61	0.29	0.776
LAWPC:USUAL	1	0.95	1.6	2.58	0.62	-0.29	0.776
MULTI:NERBL	1	0.89	0.4	0.30	1.35	0.15	0.877
MULTI:OPESP	1	0.38	0.2	0.27	0.74	-0.15	0.877
NEFPM:USUAL	1	0.77	1.04	2.01	0.52	-0.16	0.873
NERBL:USUAL	2	0.9	0.82	0.61	1.35	0.15	0.877
NSDPO:USUAL	4	1.00	1.13	1.23	0.92	-0.05	0.958
OPESP:USUAL	1	0.84	1.21	1.63	0.74	-0.15	0.877
OPIPO: PCANB	1	0.67	1.00	1.19	0.84	-0.07	0.944
OPIPO:USUAL	1	0.33	1.00	0.84	1.19	0.07	0.944
PCANB:USUAL	4	0.99	0.85	0.65	1.31	0.2	0.845
PREGB:USUAL	5	1.00	0.97	4.02	0.24	-0.4	0.687

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

k - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (RR) derived from direct evidence; **indir**-Estimated treatment effect (RR) derived from indirect evidence; **RoR** - Ratio of Ratios (direct versus indirect); **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 31: Network meta-analysis results for all-cause dropout after Knee replacement surgery

BACLF	]																						
0.46 (0.04,4.97)	CHXZN																						
0.33	0.72 (0.01,39.53)	COOPW																					
0.30 (0.03,3.37)	0.65 (0.17,2.49)	0.89 (0.02,50.28)	CORES																				
0.35	0.77	1.06	1.19		1																		
(0.04,3.22)	(0.31,1.89)	(0.02,52.57)	(0.43,3.29)	CORIV																			
0.33	0.72	1.00	1.12	0.94	CORPO																		
,		(0.01,117.80)	(0.06,20.82)	(0.06,14.69)	CORFO		,																
0.35	0.75	1.04	1.16	0.98	1.04	CORWI																	
(0.03,3.50)	(0.25,2.31)	(0.02,54.62)	(0.34,3.95)	(0.49,1.95)	(0.06,17.61)	4.00		i															
0.67	1.45 (0.12,18.10)	2.00 (0.02,191.41)	2.24 (0.17,29.27)	1.88 (0.18,20.12)	2.00 (0.05,74.84)	1.92 (0.16,22.54)	cowiv																
0.78	1.69	2.33	2.61	2.20	2.33	2.24	1.17		]														
	(0.21,13.30)			(0.34,14.22)		(0.31,16.31)	(0.06,23.67)	DEXMT															
0.29	0.62	0.86	0.96	0.81	0.86	0.83	0.43	0.37	DIII OV	1													
(0.02,3.31)	(0.16,2.48)	(0.02,48.95)	(0.22,4.15)	(0.28,2.35)	(0.05,16.28)	(0.23,2.91)	(0.03,5.73)	(0.04,3.14)	DULOX		_												
2.33	5.07	7.00	7.83	6.60	7.00	6.72	3.50	3.00	8.13	EPNPW													
, ,	(0.24,108.33)	. ,		,	,	(0.33,136.45)	, ,		(0.36,183.29)			ı											
0.33	0.71	0.99	1.10	0.93	0.99	0.95	0.49	0.42	1.15	0.14	GABPN												
(0.04,3.06)	(0.28,1.84) 0.63	(0.02,49.48)	(0.38,3.20)	(0.66,1.32) 0.82	(0.06,15.65) 0.87	0.44,2.03)	(0.05,5.37) 0.43	(0.06,2.80) 0.37	(0.38,3.46)	(0.01,2.69)	0.00												
0.29	(0.04,10.81)	(0.87	(0.05,17.39)	(0.05,12.24)		(0.05,13.55)	(0.01,15.75)	(0.01,9.91)	-	0.12 (0.00,6.69)	0.88 (0.06,13.37)	KETAM											
0.21	0.45	0.62	0.70	0.59	0.62	0.60	0.31	0.27	0.73	0.09	0.63	0.72		1									
(0.02,2.40)	(0.11,1.79)	(0.01,35.47)	(0.16,3.00)	(0.20,1.69)	(0.03,11.79)	(0.17,2.10)	(0.02,4.15)	(0.03,2.27)	(0.16,3.21)	(0.00,2.01)	(0.21,1.90)	(0.04,13.02)	LANWI										
0.28	0.60	0.83	0.93	0.79	0.83	0.80	0.42	0.36	0.97	0.12	0.84	0.96	1.33	LAWNB									
(0.02,4.71)	(0.08,4.39)	(0.01,60.50)	(0.12,7.18)	(0.13,4.65)	(0.03,21.87)	(0.12,5.36)	(0.02,8.01)	(0.03,4.68)	(0.12,7.63)	(0.00,3.66)	(0.14,5.12)	(0.04,24.25)	(0.32,5.58)	LAWIND									
0.20	0.44	0.61	0.68	0.58	0.61	0.59	0.31	0.26	0.71	0.09	0.62	0.70	0.98	0.73	LAWPC								
(0.02,2.06)	(0.14,1.38)	(0.01,32.18)	(0.20,2.35)	(0.28,1.18)	(0.04,10.39)	(0.22,1.57)	(0.03,3.60)	(0.04,1.92)	(0.20,2.53)	(0.00,1.78)	(0.28,1.35)	(0.04,11.45)	,	(0.11,4.95)			1						
0.20 (0.02,2.19)	0.43	0.60	0.67	0.57	0.60	0.58	0.30	0.26 (0.03,2.06)	0.70	0.09	0.61	0.69	0.96	0.72	0.98 (0.31,3.15)	MULTC							
0.29	(0.12,1.57) 0.63	(0.01,33.07) 0.87	(0.17,2.65)	0.82	(0.03,10.87)	(0.18,1.83) 0.84	(0.02,3.80)	0.37	(0.17,2.84) 1.02	(0.00,1.85) 0.12	0.89	1.01	(0.24,3.89) 1.40	1.05	1.43	1.46		1					
	(0.02,26.28)			(0.02,30.80)		(0.02,33.41)	-		(0.02,44.05)		(0.02,33.51)	(0.03,37.51)	-				NEFPM						
0.41	0.89	1.22	1.37	1.15	1.22	1.18	0.61	0.52	1.42	0.17	1.24	1.41	1.96	1.47	2.00	2.04	1.40						
(0.03, 5.01)	(0.20,3.92)	(0.02,72.33)	(0.29, 6.54)	(0.35,3.83)	(0.06,24.40)	(0.30,4.66)	(0.04,8.65)	(0.06,4.79)	(0.29,7.00)	(0.01,4.14)	(0.36,4.27)	(0.07,26.96)	(0.40,9.59)	(0.17,12.46)	(0.50,8.02)	(0.45,9.26)	(0.03,63.23)	NERBL					
0.55	1.20	1.65	1.85	1.56	1.65	1.59	0.83	0.71	1.92	0.24	1.68	1.90	2.65	1.99	2.71	2.76	1.89	1.35	NSDPO				
(0.06,5.44)	(0.41,3.52)	(0.03,85.76)	(0.57,6.03)	,	(0.10,27.51)	(0.64,3.98)	(0.07,9.51)	(0.10,5.03)	,	(0.01,4.72)	, , ,	(0.12,30.32)		(0.30,12.96)		,	(0.05,74.26)	,					
0.38	0.82	1.13	1.26	1.06	1.13	1.09	0.56	0.48	1.31	0.16	1.14	1.30	1.81	1.36	1.85	1.88	1.29	0.92	0.68	OPIPO			
(0.02,8.75)	(0.07,9.12)	(0.01,101.59) 1.20	1.34	(0.11,10.06) 1.13	(0.03,39.07)	(0.10,11.32) 1.15	(0.02,14.69)	(0.03,8.93)	1.39	0.00,6.46)	(0.12,11.03) 1.21	1.38	(0.15,21.47) 1.92	(0.08,23.65) 1.44	1.96	(0.17,21.31) 2.00	(0.02,91.20) 1.37	(0.07,11.71) 0.98	(0.07,6.97)	1.00		1	
(0.04,3.69)	(0.34,2.20)	(0.02,59.82)	(0.47,3.82)	(0.84,1.52)	(0.08,18.89)	(0.55,2.41)	(0.06,6.48)	(0.08,3.37)		(0.01,3.25)		(0.09,20.81)	(0.65,5.66)	(0.24,8.66)	(0.93,4.16)		(0.04,51.65)		0.72 (0.37,1.41)	1.06 (0.11,9.94)	PCANB	l .	
0.28	0.61	0.84	0.94	0.79	0.84	0.81	0.42	0.36	0.98	0.12	0.85	0.97	1.35	1.01	1.38	1.41	0.96	0.69	0.51	0.75	0.70		
(0.03,2.62)	(0.23,1.59)	(0.02,42.33)	(0.32,2.75)	(0.55,1.15)	(0.05,13.40)	(0.38,1.75)	(0.04,4.60)	(0.05,2.40)	(0.32,2.96)	(0.01,2.31)	(0.53,1.38)	(0.06,14.76)	(0.45,4.07)	(0.17,6.17)	(0.63,3.03)	(0.52,3.79)			(0.25,1.03)	(0.08,7.22)	(0.45,1.09)	PREGB	
0.33	0.72	1.00	1.12	0.94	1.00	0.96	0.50	0.43	1.16	0.14	1.01	1.15	1.60	1.20	1.64	1.67	1.14	0.82	0.60	0.89	0.83	1.19	LICUAL
(0.04,3.03)	(0.30,1.76)	(0.02,49.43)	(0.41,3.07)	(0.83, 1.07)	(0.06, 15.55)	(0.48, 1.91)	(0.05,5.32)	(0.07,2.76)	(0.40,3.34)	(0.01,2.68)	(0.73,1.40)	(0.08,17.12)	(0.56, 4.56)	(0.20,7.07)	(0.81,3.32)	(0.66,4.22)	(0.03,42.64)	(0.25,2.70)	(0.33,1.11)	(0.09,8.33)	(0.64,1.09)		USUAL

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 32: Direct and Indirect estimates of treatment effect for the all-cause dropout after Knee replacement surgery and p-value for pairwise inconsistency

comparison	k	prop	direct	indir.	RoR	z	p-value
CORIV:CORWI	1	0.37	1.2	0.87	1.38	0.44	0.658
CORIV:USUAL	3	0.99	0.94	1.30	0.72	-0.44	0.658
CORWI:USUAL	5	0.64	1.08	0.78	1.38	0.44	0.658
DULOX:PREGB	1	0.08	1.00	0.98	1.02	0.01	0.991
DULOX:USUAL	4	0.98	1.16	1.41	0.82	-0.06	0.955
GABPN:NSDPO	1	0.21	1.33	1.78	0.75	-0.34	0.731
GABPN:USUAL	3	0.99	1.02	0.76	1.33	0.17	0.866
KETAM:NEFPM	1	0.87	0.92	1.85	0.50	-0.13	0.898
LAWPC:PCANB	1	0.06	3.04	1.91	1.59	0.28	0.781
LAWPC:USUAL	1	0.95	1.6	2.55	0.63	-0.28	0.781
NEFPM:USUAL	1	0.87	1.04	2.11	0.49	-0.13	0.898
NSDPO:USUAL	3	0.97	0.59	1.20	0.49	-0.41	0.680
OPIPO:PCANB	1	0.67	1.00	1.20	0.83	-0.07	0.940
OPIPO:USUAL	1	0.33	1.00	0.83	1.20	0.07	0.940
PCANB:USUAL	3	0.99	0.84	0.65	1.29	0.19	0.852
PREGB:USUAL	4	1.00	1.19	1.37	0.87	-0.04	0.968

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

k - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (RR) derived from direct evidence; **indir**-Estimated treatment effect (RR) derived from indirect evidence; **RoR** - Ratio of Ratios (direct versus indirect); **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 33: Network meta-analysis results for all-cause drop out after hip replacement surgery

CORIV								
0.68	GABPN							
(0.28, 1.65)	GADPIN							
0.55	0.81	KETAM						
(0.15,2.05)	(0.24,2.72)	KETAM		_				
0.15	0.21	0.27	LIDOV					
(0.01, 3.17)	(0.01,4.47)	(0.01,6.47)	LIDOV					
0.60	0.88	1.10	4.12	NSDPO				
(0.28, 1.27)	(0.51,1.54)	(0.36, 3.36)	(0.20,82.92)	NODFO		_		
0.14	0.21	0.26	0.97	0.23	NSEPS			
(0.02, 1.27)	(0.02,1.77)	(0.02, 2.71)	(0.03,37.07)	(0.03, 1.90)	NSEFS		<u>.</u>	
0.76	1.12	1.39	5.22	1.27	5.40	PCANB		
(0.24,2.37)	(0.40,3.09)	(0.34,5.68)	(0.23; 118.22)	(0.51,3.12)	(0.56,51.82)	POAND		
1.06	1.56	1.93	7.27	1.76	7.53	1.39	PREGB	
(0.45, 2.49)	(0.78,3.11)	(0.59, 6.39)	(0.35; 150.47)	(1.07,2.92)	(0.89,63.60)	(0.52,3.75)	PNEUD	
0.73	1.07	1.33	5.00	1.21	5.18	0.96	0.69	USUAL
(0.35, 1.50)	(0.64,1.79)	(0.44,4.01)	(0.25,99.89)	(0.99, 1.49)	(0.64,41.59)	(0.40, 2.31)	(0.43, 1.09)	UJUAL

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Corticosteroid (IV) (CORIV); Gabapentin (GABPN); Ketamine (KETAM); Lidocaine(IV) (LIDOV); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 34: Network meta-analysis results for all-cause dropout due to adverse event after Knee/Hip replacement surgery

	1																										
BACLF																											
3.02	CHXZN																										
(0.02,461.96)	0.99		1																								
(0.02,454.47)	(0.00,249.95)	COOPW		_																							
8.21	2.72 (0.03,266.48)	2.74	CORES																								
3.68	1.22	1.23	0.45		1																						
	(0.01,112.68)	(0.01,111.85)	(0.02,12.05)	CORIV																							
3.00	0.99	1.00	0.37	0.82	CORPO																						
(0.02,454.47)	0.92	0.93	(0.00,35.30)	0.76	0.93		7																				
(0.10,74.81)	(0.02,51.46)	(0.02,51.00)			(0.02,51.00)	CORWI		_																			
3.00	0.99	1.00	0.37	0.82	1.00	1.08	cowiv																				
(0.02,453.72)	0.00,249.58)	1.00	0.37	(0.01,74.30) 0.82	(0.00,248.29) 1.00	1.08	1.00		1																		
(0.02,452.78)		(0.00,247.82)		(0.01,74.13)	(0.00,247.82)	(0.02,58.98)	(0.00,247.44)	DEXMT																			
1.24	0.41	0.41	0.15	0.34	0.41	0.44	0.41	0.41	DULOX																		
(0.04,41.99)	(0.01,27.75)	(0.01,27.52) 1.00	(0.01,2.60)	(0.02,5.29)	(0.01,27.52) 1.00	(0.07,2.71) 1.08	(0.01,27.46) 1.00	(0.01,27.39) 1.00	2.42		ì																
	(0.00,249.10)			(0.01,74.13)	(0.00,247.82)		(0.00,247.44)		(0.04,160.92)	EPNPW																	
2.46	0.81	0.82	0.30	0.67	0.82	0.88	0.82	0.82	1.99	0.82	GABPN																
(0.08,79.65)	(0.01,53.03) 1.96	(0.01,52.59)	(0.02,4.88)	(0.05,9.90) 1.61	(0.01,52.59) 1.97	(0.16,4.92)	(0.01,52.48) 1.97	(0.01,52.35) 1.97	(0.24,16.70) 4.77	(0.01,52.35) 1.97	2.41		1														
	(0.03,124.56)			(0.11,22.95)	(0.03,123.49)		(0.03,123.24)			(0.03,122.93)	(0.32,17.86)	KETAM															
3.10	1.03	1.03	0.38	0.84	1.03	1.11	1.03	1.03	2.50	1.03	1.26	0.52	LANWI	]													
(0.10,98.66)	1.03	(0.02,65.32) 1.03	(0.02,6.01)	(0.06,12.20)	(0.02,65.32) 1.03	(0.21,5.98)	(0.02,65.19)	(0.02,65.03) 1.03	(0.31,20.46)	1.03	(0.17,9.54) 1.26	(0.07,3.78)	1.00		l												
	(0.01,149.50)			(0.02,38.63)	(0.01,148.56)		(0.01,148.31)			(0.01,148.00)	(0.04,37.93)	(0.02,15.31)	(0.06,15.44)	LAWNB													
2.96	0.98	0.99	0.36	0.80	0.99	1.06	0.99	0.99	2.39	0.99	1.20	0.50	0.96	0.96	LAWPC												
(0.01,1136.93)	0.20	0.20	0.00,95.25)	0.00,202.94)	(0.00,578.86) 0.20	0.01,178.83	0.20	0.20	(0.01,468.31)	(0.00,577.16) 0.20	(0.01,228.89) 0.24	(0.00,93.38)	(0.01,179.54) 0.19	(0.00,351.61) 0.19	0.20												
(0.01,46.69)	(0.00,27.51)	(0.00,27.33)	(0.00,3.36)	(0.00,7.00)	(0.00,27.33)	(0.01,4.94)	(0.00,27.28)		(0.02,14.17)	(0.00,27.23)	(0.01,6.81)	(0.00,2.75)	(0.01,5.31)	(0.00,14.21)	(0.00,71.52)	LIDOV											
3.00	0.99	1.00	0.37	0.82	1.00	1.08	1.00	1.00	2.42	1.00	1.22	0.51	0.97	0.97	1.01	5.00	MULTC										
(0.02,454.04)	1.98	1.99	0.00,35.27)	(0.01,74.36)	(0.00,248.45)	(0.02,59.19)	1.99	1.99	(0.04,161.46) 4.83	(0.00,247.60) 1.99	(0.02,78.30)	(0.01,31.79)	(0.02,61.23) 1.93	(0.01,139.29)	(0.00,595.19)	(0.04,682.60) 9.95	1.99		1								
(0.02,1838.83)	(0.00,954.54)	(0.00,950.64)		(0.01,322.49)	(0.00,950.64)	(0.02,278.58)		(0.00,947.75)	(0.03,735.27)	(0.00,947.75)	(0.02,358.83)		(0.01,281.30)	(0.01,567.72)	(0.00,2101.59)			MULTI									
3.95	1.31	1.32	0.48	1.07	1.32	1.42	1.32	1.32	3.19	1.32	1.61	0.67	1.27	1.27	1.33	6.58	1.32	0.66	NEFPM								
(0.04,418.25)	(0.01,238.19)	(0.01,236.81)		(0.02,65.56)	(0.01,236.81)		(0.01,236.43)			(0.01,235.96)	(0.04,66.49)	(0.02,20.59)	(0.03,51.91)	(0.01,127.80)	(0.00,593.81)	(0.07,623.74)		(0.00,236.76)									
	0.99 (0.01,119.16)	1.00	0.37 (0.01,13.93)	0.82 (0.02,28.93)	1.00 (0.01,118.36)	1.08 (0.06.19.61)	1.00	1.00 (0.01,117.90)	2.42 (0.10.57.27)	1.00 (0.01,117.90)	1.22 (0.05,27.43)	0.51 (0.02,11.04)	0.97 (0.04,21.34)	0.97 (0.02,60.22)	1.01 (0.00,317.16)	5.00 (0.09,291.98)	1.00 (0.01,118.24)	0.50 (0.01,24.98)	0.76 (0.01,61.66)	NERBL							
2.21	0.73	0.74	0.27	0.60	0.74	0.80	0.74	0.74	1.79	0.74	0.90	0.37	0.71	0.71	0.75	3.69	0.74	0.37	0.56	0.74	NSDPO						
	(0.01,37.54)				(0.01,37.19)		(0.01,37.11)			(0.01,37.02)	(0.20,4.02)	(0.09,1.58)	(0.17,3.09)	(0.03,15.93)	(0.00,117.73)		(0.01,37.15)	(0.00,44.80)	(0.02,17.67)								
2.90 (0.02.434.15)	0.96	0.97	0.35	0.79 (0.01,71.02)	0.97 (0.00.237.79)	1.04	0.97	0.97	2.34 (0.04,154.07)	0.97 (0.00,236.98)	1.18 (0.02,74.71)	(0.01,30.33)	0.94 (0.01,58.42)	0.94 (0.01,133.17)	0.98 (0.00.570.38)	4.83 (0.04,652.56)	0.97	0.49 (0.00,229.58)	0.73	0.97 (0.01,113.00)	1.31 (0.03,65.10)	NSEPS					
1.19	0.40	0.40	0.15	0.32	0.40	0.43	0.40	0.40	0.97	0.40	0.49	0.20	0.39	0.39	0.40	1.99	0.40	0.20	0.30	0.40	0.54	0.41	OPESP				
		(0.00,377.12)		(0.00,141.35)	(0.00,377.12)		(0.00,376.66)	(0.00,376.09)	(0.00,333.96)	(0.00,376.09)	(0.00,163.71)	(0.00,66.91)	(0.00,128.56)	(0.00,237.19)		(0.00,1176.21)		(0.01,3.96)	(0.00,221.53)		(0.00,153.33)	(0.00,387.15)					
3.00	0.99 (0.01,154.73)	1.00	0.37	0.82 (0.02,40.78)	1.00 (0.01,153.78)	1.08	1.00 (0.01,153.53)	1.00 (0.01,153.21)	2.42 (0.07,83.99)	1.00 (0.01,153.21)	1.22 (0.04,40.45)	0.51 (0.02,16.34)	0.97 (0.03,31.54)	0.97 (0.01,81.29)	1.01 (0.01,156.18)	5.00 (0.06,395.84)	1.00	0.50 (0.00,156.68)	0.76	1.00 (0.01,67.31)	1.36 (0.05,33.57)	1.04 (0.01,157.40)	2.51 (0.00,1625.67)	OPIPO			
3.00	0.99	1.00	0.37	0.82	1.00	1.08	1.00	1.00	2.42	1.00	1.22	0.51	0.97	0.97	1.01	5.00	1.00	0.50	0.76	1.00	1.36	1.04	2.51	1.00	DCAND		
		(0.01,154.28)			(0.01,154.28)		(0.01,154.02)		(0.07,84.37)	(0.01,153.70)	(0.04,40.63)	(0.02,16.42)	(0.03,31.69)	(0.01,81.59)	(0.02,50.41)	(0.06,397.31)		(0.00,157.12)	(0.01,82.11)		(0.05,33.74)	(0.01,157.91)	(0.00,1629.73)	(0.04,24.05)	PCANB		
(0.12.71.40)	0.96 (0.02.49.88)	0.96	(0.03.4.05)	0.79 (0.08,8.12)	0.96 (0.02.49.42)	1.04 (0.36.3.02)	0.96 (0.02,49.31)	0.96 (0.02.49.18)	2.33 (0.46,11.92)	0.96 (0.02,49.18)	1.18 (0.25,5.55)	0.49 (0.11,2.16)	0.93 (0.21,4.23)	(0.04.21.26)	0.98 (0.01,155.79)	4.81 (0.23,101.01)	0.96 (0.02.49.36)	0.48 (0.00.59.33)	0.73 (0.02,23.53)	0.96 (0.06,15.92)	1.31 (0.66,2,56)	1.00 (0.02.50.42)	2.42 (0.01.695.18)	0.96	0.96	PREGB	
3.00	0.99	1.00	0.37	0.82	1.00	1.08	1.00	1.00	2.42	1.00	1.22	0.51	0.97	0.97	1.01	5.00	1.00	0.50	0.76	1.00	1.36	1.04	2.51		1.00	1.04	HCHAL
(0.13,70.78)	(0.02,49.89)	(0.02,49.43)	(0.03,3.96)	(0.08,7.91)	(0.02,49.43)	(0.43,2.70)	(0.02,49.32)	(0.02,49.19)	(0.51,11.51)	(0.02,49.19)	(0.29,5.22)	(0.13,2.02)	(0.24,3.97)	(0.04,21.06)	(0.01,157.16)	(0.25,99.89)	(0.02,49.37)	(0.00,59.75)	(0.02,23.42)	(0.06,15.68)	(0.91,2.01)	(0.02,50.42)	(0.01,703.42)	(0.04,24.16)	04,24.29) (0		USUAL

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LAWWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 35: Direct and Indirect estimates of treatment effect for the all-cause dropout due to adverse event after Knee/Hip replacement surgery and p-value for pairwise inconsistency

comparison	k	prop	direct	indir.	RoR	Z	p-value
CORIV:CORWI	1	0.36	1.00	0.65	1.54	0.17	0.861
CORIV:USUAL	2	0.68	0.71	1.10	0.65	-0.17	0.861
CORWI:USUAL	5	0.96	1.10	0.71	1.54	0.17	0.861
DULOX:PREGB	1	0.18	1.00	2.80	0.36	-0.47	0.636
DULOX:USUAL	5	0.95	2.54	1.06	2.40	0.25	0.806
GABPN:NSDPO	1	0.15	1.00	0.88	1.13	0.06	0.955
GABPN:USUAL	3	0.95	1.20	1.85	0.65	-0.12	0.903
KETAM:NEFPM	1	0.78	0.92	0.21	4.29	0.34	0.731
NEFPM:USUAL	1	0.78	1.04	0.24	4.29	0.34	0.731
NSDPO:USUAL	4	1.00	1.36	1.52	0.89	-0.03	0.976
OPIPO:PCANB	1	0.67	1.00	1.00	1.00	0.00	1.000
OPIPO:USUAL	1	0.67	1.00	1.00	1.00	0.00	1.000
PCANB:USUAL	1	0.66	1.00	1.00	1.00	0.00	1.000
PREGB:USUAL	5	0.99	1.03	9.46	0.11	-0.57	0.567

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

k - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (RR) derived from direct evidence; **indir**-Estimated treatment effect (RR) derived from indirect evidence; **RoR** - Ratio of Ratios (direct versus indirect); **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 36: Network meta-analysis results for all-cause dropout due to adverse event after Knee replacement surgery

BACLF	1																						
		1																					
3.02 (0.02,461.96)	CHXZN																						
3.00	0.99	COOPW																					
, ,	(0.00,249.95)			1																			
8.21 (0.16,430.30)	(0.03,266.48)	2.74 (0.03,264.55)	CORES																				
3.68	1.22	1.23	0.45	CORIV	1																		
	(0.01,112.68)					1																	
3.00 (0.02,454.47)	0.99 (0.00,249.95)	1.00	0.37	0.82	CORPO																		
2.78	0.92	0.93	0.34	0.76	0.93		1																
(0.10,74.81)	(0.02,51.46)	(0.02,51.00)	(0.03,4.36)	(0.07,7.80)	(0.02,51.00)	CORWI		,															
3.00	0.99	1.00	0.37	0.82	1.00	1.08	COWIV																
3.00	(0.00,249.58)	1.00	0.37	0.82	1.00	(0.02,59.14) 1.08	1.00		1														
(0.02,452.78)	(0.00,249.10)	(0.00,247.82)	(0.00,35.16)	(0.01,74.13)	(0.00,247.82)	(0.02,58.98)	(0.00,247.44)	DEXMT		_													
2.89	0.96	0.96	0.35	0.78	0.96	1.04	0.96	0.96	DULOX														
(0.07,113.54)	0.01,73.29)	1.00	0.02,7.27)	0.04,14.87)	1.00	(0.13,8.32) 1.08	1.00	1.00	1.04		1												
						(0.02,58.98)		(0.02,49.19)	1	EPNPW													
2.20	0.73	0.73	0.27	0.60	0.73	0.79	0.73	0.73	0.76	0.73	GABPN												
(0.06,75.55)	(0.01,49.85)	(0.01,49.43)	(0.02,4.69)	(0.04,9.54)	(0.01,49.43)	(0.13,4.93)	(0.01,49.33)	(0.01,49.21)	(0.07,8.84)	(0.01,49.21)			l										
2.61 (0.04.166.76)	(0.01,100.62)	(0.01.99.94)	0.32 (0.01.11.65)	0.71 (0.02.24.18)				0.87 (0.01,99.54)	0.90 (0.03,24.15)	0.87 (0.01,99.54)	1.18 (0.05,27.05)	KETAM											
4.50	1.49	1.50	0.55	1.22	1.50	1.62	1.50	1.50	1.56	1.50	2.04	1.72	LANWI	]									
(0.12,166.59)	(0.02,108.56)			(0.07,21.48)		(0.22,11.63)		(0.02,107.20)		(0.02,107.20)	(0.19,21.53)	(0.07,43.00)			-								
4.50 (0.05,417.99)	1.49	1.50	0.55	1.22 (0.02,64.34)	1.50	1.62 (0.06,47.20)	1.50	1.50 (0.01,239.06)	1.56 (0.04,66.09)	1.50 (0.01,239.06)	2.04 (0.06,75.55)	1.72 (0.03,117.71)	1.00 (0.06,15.44)	LAWNB									
2.96	0.98	0.99	0.36	0.80	0.99	1.06	0.99	0.99	1.03	0.99	1.34	1.13	0.66	0.66									
(0.01,1136.93)	(0.00,581.06)	(0.00,578.86)	(0.00,95.25)	(0.00,202.94)	(0.00,578.86)	(0.01,178.83)	(0.00,578.11)	(0.00,577.16)	(0.00,222.10)	(0.00,577.16)	(0.01,264.75)	(0.00,345.81)	(0.00,136.61)	(0.00,264.54)	LAWPC								
3.00	0.99	1.00	0.37	0.82	1.00	1.08	1.00	1.00	1.04	1.00	1.36	1.15	0.67	0.67	1.01	MULTC							
(0.02,454.04)	0.00,249.74)	0.87	0.32	0.71	0.87	0.02,59.19)	0.87	(0.00,247.60) 0.87	0.01,78.52)	(0.00,247.60) 0.87	1.19	(0.01,131.99) 1.01	0.58	(0.00,106.54) 0.58	(0.00,595.19)	0.87		1					
(0.02,320.36)	1			(0.01,51.15)		(0.02,39.41)		(0.00,178.22)		(0.00,178.22)		(0.03,37.51)	(0.01,32.42)	(0.00,75.36)	(0.00,440.19)		NEFPM		_				
3.00	0.99	1.00	0.37	0.82	1.00	1.08	1.00	1.00	1.04	1.00	1.36	1.15	0.67	0.67	1.01	1.00	1.14	NERBL					
(0.05,198.32)	(0.01,119.16)	(0.01,118.36) 1.01	0.01,13.93)	0.02,28.93)	(0.01,118.36) 1.01	1.09	(0.01,118.15) 1.01	(0.01,117.90) 1.01	1.05	(0.01,117.90) 1.01	(0.06,32.53) 1.38	(0.02,54.36) 1.17	(0.03,17.36) 0.68	0.01,47.03)	(0.00,317.16) 1.03	(0.01,118.24) 1.01	(0.01,107.83) 1.16	1.01		1			
(0.07,139.80)	(0.01,88.19)	(0.01,87.52)	(0.01,9.23)	(0.04,18.98)	(0.01,87.52)		(0.01,87.36)	(0.01,87.15)		(0.01,87.15)		(0.04,36.99)	(0.04,10.86)	(0.01,33.36)	(0.00,248.09)	(0.01,87.43)	(0.02,78.39)	(0.03,33.50)	NSDPO				
3.00	0.99	1.00	0.37	0.82	1.00	1.08	1.00	1.00	1.04	1.00	1.36	1.15	0.67	0.67	1.01	1.00	1.14	1.00	0.99	OPIPO			
(0.03,266.62)					(0.01,153.78)	,		(0.01,153.21)	,	(0.01,153.21)	,	(0.02,74.84)	(0.02,25.20)	(0.01,62.96)		,		(0.01,67.31)					
3.00 (0.03,267.58)	0.99 (0.01,155.23)	1.00 (0.01,154.28)	0.37	(0.82	1.00 (0.01,154.28)	1.08 (0.04,29.79)	1.00	1.00 (0.01,153.70)	1.04	1.00 (0.01,153.70)	1.36 (0.04,47.86)	1.15 (0.02,75.13)	0.67 (0.02,25.31)	0.67 (0.01,63.19)	1.01 (0.02,50.41)	1.00 (0.01,154.13)	1.14 (0.01,142.32)	1.00 (0.01,67.57)	0.99	1.00 (0.04,24.05)	PCANB		
2.33	0.77	0.78	0.28	0.63	0.78	0.84	0.78	0.78	0.81	0.78	1.06	0.89	0.52	0.52	0.79	0.78	0.89	0.78	0.77	0.78	0.78	PPFOP	
(0.09,58.66)	(0.01,40.85)	(0.01,40.48)	(0.02,3.35)	(0.06,6.71)	(0.01,40.48)	(0.27,2.56)	(0.01,40.39)	(0.02,40.28)		(0.02,40.28)	(0.19,5.82)	(0.06,14.34)	(0.08,3.33)	(0.02,14.18)				(0.05,13.11)		(0.03,20.02)	0.03,20.12)	PREGB	
3.00	0.99	1.00	0.37	0.82	1.00	1.08	1.00	1.00	1.04	1.00	1.36	1.15	0.67	0.67	1.01	1.00	1.14	1.00	0.99	1.00	1.00	1.29	USUAL
(0.13,70.78)	(0.02,49.89)	(0.02,49.43)	(0.03,3.96)	(0.08,7.91)	(0.02,49.43)	(0.43,2.70)	(0.02,49.32)	(0.02,49.19)	(0.16,6./4)	(0.02,49.19)	(0.28,6.61)	(0.08,17.12)	(0.12,3.82)	(0.03,17.14)	(0.01,157.16)	(0.02,49.37)	(0.03,42.64)	[(U.U6,15.68)	(0.11,8.53)	(0.04,24.16)	0.04,24.29)	0.08,2.43)	

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LAWWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 37: Direct and Indirect estimates of treatment effect for the all-cause dropout due to adverse event after Knee replacement surgery and p-value for pairwise inconsistency

comparison	k	prop	direct	indir.	RoR	Z	p-value
CORIV:CORWI	1	0.36	1.00	0.65	1.54	0.17	0.861
CORIV:USUAL	2	0.68	0.71	1.10	0.65	-0.17	0.861
CORWI:USUAL	5	0.96	1.10	0.71	1.54	0.17	0.861
DULOX:PREGB	1	0.25	1.00	0.75	1.33	0.12	0.901
DULOX:USUAL	4	0.93	1.00	1.68	0.59	-0.14	0.886
GABPN:NSDPO	1	0.40	1.00	1.72	0.58	-0.21	0.834
GABPN:USUAL	2	0.97	1.39	0.78	1.78	0.13	0.898
KETAM:NEFPM	1	0.87	0.92	1.85	0.50	-0.13	0.898
NEFPM:USUAL	1	0.87	1.04	2.11	0.49	-0.13	0.898
NSDPO:USUAL	3	0.92	0.92	2.20	0.42	-0.21	0.830
OPIPO:PCANB	1	0.67	1.00	1.00	1.00	0.00	1.000
OPIPO:USUAL	1	0.67	1.00	1.00	1.00	0.00	1.000
PCANB:USUAL	1	0.66	1.00	1.00	1.00	0.00	1.000
PREGB:USUAL	4	0.99	1.29	1.00	1.29	0.06	0.951

Statistical tests of inconsistency have low power and thus typically is p value < 0.1 is considered as important inconsistency

k - Number of studies providing direct evidence; **prop** - Direct evidence proportion; **direct** - Estimated treatment effect (RR) derived from direct evidence; **indir**-Estimated treatment effect (RR) derived from indirect evidence; **RoR** - Ratio of Ratios (direct versus indirect); **z** - z-value of test for disagreement (direct versus indirect). Abbreviations: Baclofen (ESP) (BACLF); Chlorzoxazone (CHXZN); Opioid (WI) + Corticosteroid (WI) (COOPW); Corticosteroid (ESP) (CORES); Corticosteroid (IV) (CORIV); Oral Steroid (CORPO); Corticosteroid (WI) (CORWI); Corticosteroid (IV + WI) (COWIV); Dexmedetomidine (WI) (DEXMT); Duloxetine (DULOX); Epinephrine (WI) (EPNPW); Gabapentin (GABPN); Ketamine (KETAM); LAWI (LANWI); LAWI + NB (LAWNB); PCA-LAWI (LAWPC); Lidocaine(IV) (LIDOV); (WI) Epi + Opioid + LA + Corticosteroid (MULTC); Epi + NSAID + LA (WI) (MULTI); Nefopam (NEFPM); NB (NERBL); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Opioid (EPS) (OPESP); Oral Opioid (OPIPO); PCA-NB (PCANB); Pregabalin (PREGB); Usual care (USUAL)

Table 38: Network meta-analysis results for all-cause dropout due to adverse event after Hip replacement surgery

GABPN						
1.32 (0.02,90.22)	KETAM					
0.10	0.08	LIDOV				
(0.00,13.77)	(0.00, 2.27)	LIDOV		_		
0.37	0.28	3.64	NSDPO			
(0.01,18.53)	(0.05, 1.45)	(0.18,74.78)	NSDFO			
0.49	0.37	4.83	1.33	NSEPS		
(0.00,119.77)	(0.01,24.61)	(0.04,652.56)	(0.03,65.94)	NOEPO		
0.91	0.68	9.00	2.47	1.86	DDECD	
(0.02,51.57)	(0.10, 4.68)	(0.38,215.29)	(0.80, 7.64)	(0.03,104.45)	PREGB	
0.50	0.38	5.00	1.37	1.04	0.56	USUAL
(0.01,24.91)	(0.08, 1.90)	(0.25,99.89)	(0.92, 2.05)	(0.02,50.42)	(0.19, 1.59)	USUAL

Footnote: Results are Risk Ratio (95% CIs) from the network meta-analysis. Risk ratios < 1 indicate the intervention in the column is superior to the comparator in the row. Numbers in bold represent statistically significant results. Abbreviations for interventions: Gabapentin (GABPN); Ketamine (KETAM); Lidocaine(IV) (LIDOV); Oral NSAID (NSDPO); NSAID(EPS) (NSEPS); Pregabalin (PREGB); Usual care (USUAL)

Table 39: Confidence in Network Meta-Analysis (CINeMA) Assessment for CPSP at 3-6 Months Follow-up

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
BACLF:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:USUAL	3	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
COWIV:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:USUAL	4	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NEFPM	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:USUAL	3	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LANWI:LAWNB	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:PCANB	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LIDOV:USUAL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
MULTI:NERBL	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
NEFPM:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:USUAL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
OPESP:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPIPO:PCANB	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPIPO:USUAL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
PCANB:USUAL	4	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
PREGB:USUAL	3	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:CORES	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:CORIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:CORWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:COWIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
BACLF:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
BACLF:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
BACLF:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:CORIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:CORWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:COWIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORES:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORES:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORES:OPESP	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CORIV:CORWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:COWIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORIV:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORIV:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORIV:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:COWIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:KETAM	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORWI:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORWI:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORWI:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORWI:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:OPIPO	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CORWI:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COWIV:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COWIV:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COWIV:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DULOX:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DULOX:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
GABPN:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
GABPN:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
GABPN:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
KETAM:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
KETAM:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
KETAM:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
KETAM:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:OPIPO	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
KETAM:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LANWI:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LANWI:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LANWI:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
LANWI:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:LIDOV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:USUAL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LAWPC:LIDOV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:USUAL	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LIDOV:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:NEFPM	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LIDOV:NERBL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:OPESP	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LIDOV:OPIPO	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LIDOV:PCANB	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LIDOV:PREGB	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
MULTI:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
MULTI:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:USUAL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
NEFPM:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
NEFPM:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
NERBL:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:OPESP	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
NSDPO:OPIPO	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
NSDPO:PCANB	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
NSDPO:PREGB	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
OPESP:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPESP:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPESP:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPIPO:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
PCANB:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

Table 40: Confidence in Network Meta-Analysis (CINeMA) Assessment for CPSP at 6-12 Months Follow-up

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CHXZN:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:USUAL	3	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:USUAL	3	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DULOX:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NEFPM	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:LAWNB	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:PCANB	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
PCANB:USUAL	4	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:CORIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:CORWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:CORWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CORIV:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
KETAM:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:USUAL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LAWPC:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:USUAL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
NEFPM:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NEFPM:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

Table 41: Confidence in Network Meta-Analysis (CINeMA) Assessment for Pain Intensity Comparisons at 3-6 Months Follow-up

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
BACLF:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
CORES:USUAL	2	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low
CORIV:CORWI	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:USUAL	3	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORPO:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:USUAL	4	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COWIV:USUAL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:EPNPW	1	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
DEXMT:USUAL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DULOX:USUAL	4	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
EPNPW:USUAL	1	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low
GABPN:NSDPO	1	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
GABPN:USUAL	2	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:NEFPM	1	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
KETAM:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:LAWNB	1	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
LANWI:USUAL	1	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
LAWPC:PCANB	1	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
LAWPC:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
LIDOV:USUAL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
MULTC:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
MULTI:NERBL	1	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
NEFPM:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
NSEPS:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
OPESP:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPIPO:PCANB	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
OPIPO:USUAL	1	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low
PCANB:USUAL	4	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
PREGB:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
BACLF:COOPW	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:CORES	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:CORIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:CORPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:CORWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:COWIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:DEXMT	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
BACLF:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:EPNPW	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
BACLF:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
BACLF:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
BACLF:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
BACLF:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:CORES	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:CORIV	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:CORPO	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
COOPW:CORWI	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
COOPW:COWIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:DEXMT	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
COOPW:DULOX	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:EPNPW	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
COOPW:GABPN	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
COOPW:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
COOPW:MULTC	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
COOPW:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
COOPW:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
COOPW:PREGB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORES:CORIV	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:CORPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:CORWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:COWIV	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:DEXMT	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORES:DULOX	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:EPNPW	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORES:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORES:MULTC	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORES:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
CORES:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORES:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:CORPO	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORIV:COWIV	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORIV:DEXMT	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORIV:DULOX	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORIV:EPNPW	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
CORIV:GABPN	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORIV:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

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CORIV:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORIV:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:MULTI	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low
CORIV:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:OPIPO	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORIV:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORPO:CORWI	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORPO:COWIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORPO:DEXMT	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
CORPO:DULOX	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORPO:EPNPW	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
CORPO:GABPN	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORPO:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORPO:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORPO:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORPO:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORPO:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORPO:MULTC	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORPO:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORPO:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORPO:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORPO:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORPO:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CORPO:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORPO:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORPO:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORPO:PREGB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORWI:COWIV	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORWI:DEXMT	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORWI:DULOX	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORWI:EPNPW	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
CORWI:GABPN	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORWI:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:LANWI	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORWI:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
CORWI:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORWI:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:NERBL	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
CORWI:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:OPIPO	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORWI:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:PREGB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
COWIV:DEXMT	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
COWIV:DULOX	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COWIV:EPNPW	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
COWIV:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COWIV:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COWIV:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
COWIV:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
COWIV:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
COWIV:MULTC	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
COWIV:MULTI	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
COWIV:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COWIV:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
COWIV:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
COWIV:PCANB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
COWIV:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DEXMT:DULOX	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:GABPN	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
DEXMT:KETAM	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:LANWI	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DEXMT:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DEXMT:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:MULTC	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:MULTI	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:NEFPM	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:NERBL	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low
DEXMT:NSDPO	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:NSEPS	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:OPESP	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:OPIPO	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
DEXMT:PCANB	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:PREGB	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
DULOX:EPNPW	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DULOX:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
DULOX:KETAM	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
DULOX:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
DULOX:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DULOX:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:NSEPS	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:OPIPO	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DULOX:PCANB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
DULOX:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
EPNPW:GABPN	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
EPNPW:KETAM	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
EPNPW:LANWI	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
EPNPW:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
EPNPW:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:MULTC	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
EPNPW:MULTI	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:NEFPM	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
EPNPW:NERBL	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
EPNPW:NSDPO	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
EPNPW:NSEPS	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:OPESP	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:OPIPO	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate
EPNPW:PCANB	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
EPNPW:PREGB	0	No concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Moderate

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
GABPN:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
GABPN:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
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GABPN:NSEPS	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:OPIPO	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
GABPN:PCANB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
GABPN:PREGB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
KETAM:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
KETAM:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
KETAM:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
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KETAM:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:PCANB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
KETAM:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LANWI:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:MULTI	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate

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LANWI:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
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LANWI:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
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LAWNB:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:LIDOV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
LAWNB:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:USUAL	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LAWPC:LIDOV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWPC:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWPC:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
LIDOV:MULTC	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LIDOV:MULTI	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LIDOV:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LIDOV:NERBL	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LIDOV:NSDPO	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LIDOV:NSEPS	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low
LIDOV:OPESP	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LIDOV:OPIPO	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LIDOV:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LIDOV:PREGB	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
MULTC:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
MULTC:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
MULTC:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
MULTC:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
MULTI:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
MULTI:NSDPO	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low
MULTI:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:OPIPO	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
MULTI:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:USUAL	0	No concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Low
NEFPM:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
NEFPM:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
NEFPM:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:PCANB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
NEFPM:PREGB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
NERBL:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NERBL:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very low
NERBL:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NERBL:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NSDPO:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:OPIPO	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
NSDPO:PCANB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
NSDPO:PREGB	0	Some concerns	Low risk	No concerns	No concerns	Some concerns	No concerns	Low
NSEPS:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSEPS:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSEPS:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSEPS:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPESP:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPESP:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPESP:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPIPO:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
PCANB:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

Table 42: Confidence in Network Meta-Analysis (CINeMA) Assessment for Pain Intensity Comparisons at 6-12 Months Follow-up

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CHXZN:USUAL	2	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:USUAL	4	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORWI:USUAL	3	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NEFPM	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:LAWNB	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:PCANB	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWPC:USUAL	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NEFPM:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:USUAL	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NSDPO:USUAL	2	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
OPIPO:PCANB	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
PCANB:USUAL	4	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:COOPW	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:CORIV	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:CORWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CHXZN:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:CORIV	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:CORWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:CORWI	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORIV:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:NSDPO	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORIV:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CORWI:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
KETAM:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWNB:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:USUAL	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LAWPC:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWPC:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWPC:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWPC:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NEFPM:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NEFPM:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NEFPM:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NERBL:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NERBL:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NERBL:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NSDPO:OPIPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NSDPO:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
OPIPO:USUAL	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate

Table 43: Confidence in Network Meta-Analysis (CINeMA) Assessment for physical function Comparisons

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CHXZN:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:USUAL	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:CORWI	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:USUAL	3	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:USUAL	5	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DEXMT:EPNPW	1	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:USUAL	1	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DULOX:PREGB	1	No concerns	Low risk	No concerns	No concerns	No concerns	Some concerns	Moderate
DULOX:USUAL	3	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
EPNPW:USUAL	1	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
GABPN:NSDPO	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:USUAL	2	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:NEFPM	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:PCANB	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWPC:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:NERBL	1	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
MULTI:OPESP	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	Some concerns	No concerns	Very Low
NERBL:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:USUAL	4	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
OPESP:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
PCANB:USUAL	4	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
PREGB:USUAL	2	Some concerns	Low risk	No concerns	No concerns	No concerns	Some concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CHXZN:COOPW	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:CORES	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:CORIV	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:CORWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:DEXMT	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CHXZN:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:EPNPW	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CHXZN:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CHXZN:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:CORES	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:CORIV	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:CORWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:DEXMT	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
COOPW:DULOX	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:EPNPW	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
COOPW:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
COOPW:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
COOPW:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:CORIV	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:CORWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:DEXMT	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORES:DULOX	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:EPNPW	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORES:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:OPESP	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORES:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:DEXMT	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORIV:DULOX	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:EPNPW	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORIV:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CORIV:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:DEXMT	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORWI:DULOX	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORWI:EPNPW	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORWI:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:MULTI	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
CORWI:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:OPESP	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORWI:PREGB	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:DULOX	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:GABPN	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:KETAM	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:LANWI	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DEXMT:MULTC	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:MULTI	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:NEFPM	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:NERBL	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
DEXMT:NSDPO	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:OPESP	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:PCANB	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DEXMT:PREGB	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DULOX:EPNPW	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DULOX:GABPN	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:MULTI	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DULOX:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
DULOX:OPESP	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
DULOX:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
EPNPW:GABPN	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
EPNPW:KETAM	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
EPNPW:LANWI	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
EPNPW:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
EPNPW:MULTC	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
EPNPW:MULTI	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:NEFPM	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:NERBL	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:NSDPO	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
EPNPW:OPESP	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:PCANB	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
EPNPW:PREGB	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
GABPN:KETAM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
GABPN:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:MULTI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:LANWI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:LAWPC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWPC:MULTC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWPC:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWPC:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LAWPC:OPESP	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
LAWPC:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
MULTC:MULTI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:NEFPM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
MULTC:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
MULTC:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
MULTI:NEFPM	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
MULTI:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:PREGB	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
MULTI:USUAL	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
NEFPM:NERBL	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NEFPM:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NERBL:OPESP	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NERBL:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NERBL:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NSDPO:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NSDPO:PREGB	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High
OPESP:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPESP:PREGB	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
PCANB:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

Table 44: Confidence in Network Meta-Analysis (CINeMA) Assessment for all-cuase dropout

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
BACLF:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:CORWI	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:USUAL	4	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORPO:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:USUAL	5	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DEXMT:EPNPW	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:USUAL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DULOX:PREGB	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:USUAL	5	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
EPNPW:USUAL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
GABPN:NSDPO	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:USUAL	4	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NEFPM	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
KETAM:USUAL	3	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LANWI:LAWNB	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:PCANB	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LIDOV:USUAL	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
MULTC:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:NERBL	1	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
MULTI:OPESP	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NERBL:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:USUAL	4	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
NSEPS:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
OPESP:USUAL	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPIPO:PCANB	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPIPO:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
PCANB:USUAL	4	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
PREGB:USUAL	5	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:CHXZN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:COOPW	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:CORES	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:CORIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:CORPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:CORWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
BACLF:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
BACLF:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
BACLF:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
BACLF:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:COOPW	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:CORES	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:CORIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:CORPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:CORWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CHXZN:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CHXZN:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CHXZN:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CHXZN:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COOPW:CORES	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:CORIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:CORPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
COOPW:CORWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COOPW:DULOX	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COOPW:GABPN	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:KETAM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:LANWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COOPW:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:CORIV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:CORPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:CORWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORES:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORES:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CORES:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORES:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:CORPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORIV:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORIV:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORIV:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CORIV:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORIV:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
CORPO:CORWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORPO:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORPO:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORPO:GABPN	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:KETAM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:LANWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORPO:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORPO:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORWI:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CORWI:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:KETAM	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORWI:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORWI:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COWIV:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COWIV:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
COWIV:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
COWIV:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DEXMT:DULOX	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:GABPN	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:KETAM	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:LANWI	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DEXMT:LAWPC	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:MULTC	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:NEFPM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:NERBL	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:NSDPO	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:NSEPS	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:OPESP	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:OPIPO	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:PCANB	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DEXMT:PREGB	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DULOX:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DULOX:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:KETAM	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
DULOX:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DULOX:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
DULOX:MULTI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Very low
DULOX:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
EPNPW:GABPN	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:KETAM	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:LANWI	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
EPNPW:LAWPC	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:MULTC	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:NEFPM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:NERBL	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:NSDPO	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:NSEPS	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:OPESP	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:OPIPO	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:PCANB	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
EPNPW:PREGB	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
GABPN:KETAM	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
GABPN:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
GABPN:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
GABPN:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
KETAM:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LAWNB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
KETAM:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
KETAM:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:OPIPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
KETAM:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LANWI:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:NSDPO	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
LANWI:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

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LANWI:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:LAWPC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:LIDOV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:USUAL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LAWPC:LIDOV	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:MULTC	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
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LAWPC:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LIDOV:MULTC	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:NEFPM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:NERBL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
LIDOV:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:NSEPS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:OPESP	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:OPIPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LIDOV:PREGB	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
MULTC:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTC:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTC:NERBL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTC:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTC:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:NSEPS	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
MULTI:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
MULTI:USUAL	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
NEFPM:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NERBL:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
NERBL:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NERBL:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NERBL:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:NSEPS	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:OPESP	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:OPIPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSDPO:PCANB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NSDPO:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate
NSEPS:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSEPS:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSEPS:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSEPS:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
OPESP:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
OPESP:PCANB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPESP:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
OPIPO:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
PCANB:PREGB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate

Table 45: Confidence in Network Meta-Analysis (CINeMA) Assessment for all-cause dropout due to adverse event

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
BACLF:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:CORWI	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORPO:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:USUAL	5	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
COWIV:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DEXMT:EPNPW	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:USUAL	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DULOX:PREGB	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:USUAL	5	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
EPNPW:USUAL	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
GABPN:NSDPO	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:USUAL	3	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NEFPM	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
KETAM:USUAL	3	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LANWI:LAWNB	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:USUAL	2	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWPC:PCANB	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LIDOV:USUAL	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
MULTC:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:NERBL	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
MULTI:OPESP	1	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NEFPM:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NERBL:USUAL	2	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSDPO:USUAL	4	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSEPS:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
OPIPO:PCANB	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
OPIPO:USUAL	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
PCANB:USUAL	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
PREGB:USUAL	5	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
BACLF:CHXZN	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:COOPW	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:CORES	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:CORIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:CORPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:CORWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
BACLF:DULOX	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
BACLF:GABPN	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:KETAM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:LANWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
BACLF:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
BACLF:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CHXZN:COOPW	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:CORES	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:CORIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:CORPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:CORWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CHXZN:DULOX	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CHXZN:GABPN	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:KETAM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:LANWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CHXZN:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CHXZN:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:CORES	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:CORIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:CORPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:CORWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
COOPW:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COOPW:DULOX	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COOPW:GABPN	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:KETAM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:LANWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COOPW:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COOPW:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:CORIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:CORPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:CORWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORES:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORES:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:KETAM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CORES:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORES:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORES:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORES:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:CORPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORIV:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORIV:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:KETAM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORIV:LANWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORIV:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORIV:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORIV:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

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CORIV:OPIPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORIV:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORIV:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORPO:CORWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORPO:DULOX	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORPO:GABPN	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:KETAM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:LANWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORPO:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORPO:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:COWIV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORWI:DULOX	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORWI:GABPN	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:KETAM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
CORWI:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
CORWI:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
CORWI:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:OPIPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
CORWI:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
CORWI:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
COWIV:DEXMT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COWIV:DULOX	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COWIV:GABPN	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:KETAM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:LANWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
COWIV:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

M.Sc. Thesis – Azin Khosravirad; McMaster University \_ Health Research Methodology

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
COWIV:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
COWIV:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DEXMT:DULOX	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:GABPN	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:KETAM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:LANWI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DEXMT:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DEXMT:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:MULTC	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:NEFPM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:NERBL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:NSEPS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:OPESP	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:OPIPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:PCANB	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DEXMT:PREGB	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DULOX:EPNPW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DULOX:GABPN	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:KETAM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DULOX:LANWI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DULOX:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DULOX:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
DULOX:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
DULOX:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
DULOX:OPIPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
DULOX:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
EPNPW:GABPN	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:KETAM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:LANWI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
EPNPW:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
EPNPW:LIDOV	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:MULTC	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:NEFPM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:NERBL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:NSEPS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:OPESP	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:OPIPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:PCANB	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
EPNPW:PREGB	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
GABPN:KETAM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
GABPN:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
GABPN:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
GABPN:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
GABPN:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LANWI	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:LAWNB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
KETAM:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
KETAM:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
KETAM:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
KETAM:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
KETAM:NERBL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
KETAM:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
KETAM:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
KETAM:OPESP	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
KETAM:OPIPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
KETAM:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
KETAM:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:LIDOV	0	No concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Moderate
LANWI:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:NSDPO	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LANWI:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LANWI:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
LANWI:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
LAWNB:LAWPC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:LIDOV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWNB:USUAL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LAWPC:LIDOV	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:MULTC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
LAWPC:USUAL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:MULTC	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:MULTI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:NEFPM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:NERBL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:NSDPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
LIDOV:NSEPS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:OPESP	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:OPIPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:PCANB	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
LIDOV:PREGB	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
MULTC:MULTI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTC:NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTC:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTC:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTC:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTC: OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTC: OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTC: PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTC: PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI: NEFPM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:OPIPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
MULTI:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
MULTI:USUAL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
NEFPM:NERBL	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NEFPM:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NERBL:NSDPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NERBL:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

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Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating
NERBL:OPESP	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
NERBL:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NERBL:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NERBL:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSDPO:NSEPS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSDPO:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSDPO:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSDPO:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSDPO:PREGB	0	Some concerns	Low risk	No concerns	Some concerns	No concerns	No concerns	Low
NSEPS:OPESP	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSEPS:OPIPO	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSEPS:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
NSEPS:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
OPESP:OPIPO	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
OPESP:PCANB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
OPESP:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
OPESP:USUAL	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low
OPIPO:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low
PCANB:PREGB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low

## Search Strategy

Database: OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present

Search Strategy:

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- 1 exp Orthopedic procedures/ or (orthop?edic\* adj2 (procedure\* or surgery or surgical or surgeries)).mp. (400453)
- 2 (Acetabuloplasty or acetabuloplasties).mp. (518)
- 3 (((amputation or amputations) adj2 surgical) or (disarticulation or hemipelvectomy)).mp. (27071)
- 4 (Arthrodesis or arthrodeses or spinal fusion\* or lumbar fusion\* or cervical fusion\* or spondylodeses or spondylodesis or spondylosyndeses or spondylosyndesis).mp. (56119)
- 5 (Arthroplasty or arthroplasties or (bone tunnel adj (enlargement or enlargements or widening))).mp. (122288)
- 6 (Arthroscopy or arthroscopic).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (48182)
- 7 Bone lengthening.mp. (2766)
- 8 (Bone transplantation or bone grafting).mp. (42073)
- 9 (cementoplasty or cementoplasties or osteoplasties or osteoplasty).mp. (1352)
- 10 ((Collateral or cruciate) adj ligament reconstruction).mp. (14899)
- 11 (diskectomy or diskectomies or discectomy or discectomies).mp. (13039)
- 12 Fasciotomy/ or (fascietomy or fasciotomy).mp. (6437)
- 13 ((fracture or skeletal) adj (surgery or fixation\*)).mp. (78366)
- 14 (Intervertebral adj (Disc or disk) adj (Chemolysis or chemolyses or nucleolyses or nucleolysis)).mp. (502)
- 15 (Laminectomy or laminectomies or laminotomies or laminotomy).mp. (18340)
- 16 (Laminoplasty or laminaplasties or laminaplasty or laminoplasties).mp. (2504)

- 17 Limb Salvage.mp. (11603)
- 18 (Osteotomy or osteotomies).mp. (55292)
- 19 (Synovectomy or synovectomies or synovium resection\*).mp. (4478)
- 20 Tendon transfer\*.mp. (6290)
- 21 (Tenodesis or tenodeses).mp. (2672)
- 22 (Tenotomy or ((heel cord or heel-cord or tendon) adj (release or releases or lengthening or lengthenings))).mp. (4085)
- 23 (vertebroplasty or vertebroplasties).mp. (4935)
- 24 (Viscosupplementation or viscosupplementations).mp. (786)
- 25 ((back or spine or spinal or cervical or lumbar or vertebra\* or neck or hand or knee or hip or muscle or musculoskeletal or carpal tunnel or orthoped\* or orthopaed\*) adj3 (surgery or surgeries or surgical or procedure\*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (156218)
- 26 or/1-25 (566582)
- 27 Pain, Postoperative/ (52311)
- 28 ((postoperative adj6 pain\*) or (post-operative adj6 pain\*) or post-operative-pain\*).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (85710)
- 29 ((post-operative adj6 analgesi\*) or (postoperative adj6 analgesi\*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating subheading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (21076)
- 30 ((post-surgical adj6 pain\*) or (post surgical adj6 pain\*) or (post-surgery adj6 pain\*) or (post adj surg\* adj pain\*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare

disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (1631)

- 31 ((post\* adj pain\*) or pain relief after or pain following surg\*).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (43855)
- 32 ((posttreatment adj6 pain\*) or (pain control after adj6 surg\*) or (post-surg\* and (pain\* or discomfort))).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (6199)
- 33 ((analgesi\* adj6 postoperat\*) or (analgesi\* adj6 post-operat\*) or (pain\* adj6 after surg\*) or (pain\* adj6 after operat\*) or (analgesi\* adj6 after operat\*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (29766)
- 34 ((pain\* or analgesi\*) adj6 ("follow\* operat\*" or "follow\* surg\*")).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating subheading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (1235)
- 35 (pain\* or discomfort or analgesi\*).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (1182534)
- 36 (chronic\* or constant\* or continu\* or persist\* or longterm or long-term or longstanding or long-standing or long lasting or long-lasting or phantom or sustain\* or prolong\* or recurr\*).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (6416198)

- 37 or/27-34 (103231)
- 38 (chronic\* or constant\* or continu\* or persist\* or longterm or long-term or longstanding or long-standing or long lasting or long-lasting or phantom or sustain\* or prolong\* or recurr\*).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (6416198)
- 39 (preoperative or pre-operative).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (412742)
- 40 (peri-operative or perioperative).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (158435)
- 41 38 or 39 or 40 (6783223)
- 42 26 and 37 and 41 (14892)
- 43 randomized controlled trial.pt. (632167)
- 44 controlled clinical trial.pt. (95679)
- 45 randomi?ed.ab. (810508)
- 46 placebo.ab. (256003)
- 47 drug therapy.fs. (2779675)
- 48 randomly.ab. (452977)
- 49 trial.ab. (737813)
- 50 groups.ab. (2805228)
- 51 or/43-50 (6222590)
- 52 exp animals/ not humans.sh. (5305028)
- 53 51 not 52 (5454080)
- 54 42 and 53 (7425)

Embase (OVID)	
Database: Embase <1974 to present>	
Search Strategy:	

- 1 exp orthopedic surgery/ (656265)
- 2 (orthop?edic\* adj2 (procedure\* or surgery or surgical or surgeries)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (64881)
- 3 (Acetabuloplasty or acetabuloplasties).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (1676)
- 4 (((amputation or amputations) adj2 surgical) or (disarticulation or hemipelvecomy)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (2553)
- 5 (Arthrodesis or arthrodeses or spinal fusion\* or lumbar fusion\* or cervical fusion\* or spondylodeses or spondylodesis or spondylosyndeses or spondylosyndesis).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (44511)
- 6 (Arthroplasty or arthroplasties or (bone tunnel adj (enlargement or enlargements or widening))).mp. (147240)
- 7 (Arthroscopy or arthroscopic).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (65909)
- 8 Bone lengthening.mp. (690)
- 9 (Bone transplantation or bone grafting).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (29788)
- 10 (cementoplasty or cementoplasties or osteoplasties or osteoplasty).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug

manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (1744)

- 11 ((Collateral or cruciate) adj ligament reconstruction).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (22664)
- 12 (diskectomy or diskectomies or discectomy or discectomies).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (19290)
- 13 fasciotomy/ (6877)
- 14 (fascietomy or fasciotomy).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (7927)
- 15 ((fracture or skeletal) adj (surgery or fixation\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (36377)
- 16 ((Disc or disk) adj (Chemolysis or chemolyses or nucleolyses or nucleolysis)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (11)
- 17 (Laminectomy or laminectomies or laminotomies or laminotomy).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (31851)
- 18 (Laminoplasty or laminaplasties or laminaplasty or laminoplasties).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (4057)
- 19 Limb Salvage.mp. or limb salvage/ (14886)
- 20 (Osteotomy or osteotomies).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (67778)
- 21 (Synovectomy or synovectomies or synovium resection\*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer,

device trade name, keyword heading word, floating subheading word, candidate term word] (6750)

- 22 tendon transfer/ or Tendon transfer\*.mp. (6034)
- 23 (Tenodesis or tenodeses).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (3708)
- 24 (Tenotomy or ((heel cord or heel-cord or tendon) adj (release or releases or lengthening or lengthenings))).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (6490)
- 25 (vertebroplasty or vertebroplasties).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (7951)
- 26 (Viscosupplementation or viscosupplementations).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (1241)
- 27 ((back or spine or spinal or cervical or lumbar or vertebra\* or neck or hand or knee or hip or muscle or musculoskeletal or carpal tunnel or orthoped\* or orthopaed\*) adj3 (surgery or surgeries or surgical or procedure\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (243233)
- 28 postoperative pain/ (98723)
- 29 ((postoperative adj6 pain\*) or (post-operative adj6 pain\*) or post-operative-pain\*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (134196)
- 30 ((post-operative adj6 analgesi\*) or (postoperative adj6 analgesi\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (44643)
- 31 ((post-surgical adj6 pain\*) or (post surgical adj6 pain\*) or (post-surgery adj6 pain\*) or (post adj surg\* adj pain\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (2919)

- 32 ((post\* adj pain\*) or pain relief after or pain following surg\*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (114828)
- 33 ((posttreatment adj6 pain\*) or (pain control after adj6 surg\*) or (post-surg\* and (pain\* or discomfort))).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (11931)
- 34 ((analgesi\* adj6 postoperat\*) or (analgesi\* adj6 post-operat\*) or (pain\* adj6 after surg\*) or (pain\* adj6 after operat\*) or (analgesi\* adj6 after operat\*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (55840)
- 35 ((pain\* or analgesi\*) adj6 ("follow\* operat\*" or "follow\* surg\*")).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (1814)
- 36 or/1-27 (811417)
- 37 or/28-35 (167780)
- 38 36 and 37 (44714)
- 39 (chronic\* or constant\* or continu\* or persist\* or longterm or long-term or longstanding or long-standing or long lasting or long-lasting or phantom or sustain\* or prolong\* or recurr\*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (8748000)
- 40 (preoperative or pre-operative).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (647653)
- 41 (peri-operative or perioperative).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (240826)
- 42 39 or 40 or 41 (9287794)
- 43 38 and 42 (26378)
- 44 randomized controlled trial/ (862926)
- 45 Controlled clinical study/ (441829)

- 46 random\$.ti,ab. (2153226)
- 47 randomization/ (99572)
- 48 intermethod comparison/ (309705)
- 49 placebo.ti, ab. (385780)
- 50 (compare or compared or comparison).ti. (638335)
- 51 ((evaluated or evaluate or evaluating or assessed or assess) and (compare or compared or comparing or comparison)).ab. (3058463)
- 52 (open adj label).ti,ab. (121167)
- 53 ((double or single or doubly or singly) adj (blind or blinded or blindly)).ti,ab. (288634)
- 54 double blind procedure/ (226706)
- 55 parallel group\$1.ti,ab. (34742)
- 56 (crossover or cross over).ti,ab. (131314)
- 57 ((assign\$ or match or matched or allocation) adj5 (alternate or group\$1 or intervention\$1 or patient\$1 or subject\$1 or participant\$1)).ti,ab. (448891)
- 58 (assigned or allocated).ti,ab. (530888)
- 59 (controlled adj7 (study or design or trial)).ti,ab. (491590)
- 60 (volunteer or volunteers).ti,ab. (293376)
- 61 human experiment/ (673039)
- 62 trial.ti. (445279)
- 63 or/44-62 (6822272)
- 64 (random\$ adj sampl\$ adj7 ("cross section\$" or questionnaire\$1 or survey\$ or database\$1)).ti,ab. not (comparative study/ or controlled study/ or randomi?ed controlled.ti,ab. or randomly assigned.ti,ab.) (10197)
- 65 Cross-sectional study/ not (randomized controlled trial/ or controlled clinical study/ or controlled study/ or randomi?ed controlled.ti,ab. or control group\$1.ti,ab.) (422755)
- 66 (((case adj control\$) and random\$) not randomi?ed controlled).ti,ab. (23118)
- 67 (Systematic review not (trial or study)).ti. (311075)
- 68 (nonrandom\$ not random\$).ti,ab. (19860)
- 69 "Random field\$".ti,ab. (3104)

- 70 (random cluster adj3 sampl\$).ti,ab. (1710)
- 71 (review.ab. and review.pt.) not trial.ti. (1244273)
- 72 "we searched".ab. and (review.ti. or review.pt.) (56214)
- 73 "update review".ab. (152)
- 74 (databases adj4 searched).ab. (73526)
- 75 (rat or rats or mouse or mice or swine or porcine or murine or sheep or lambs or pigs or piglets or rabbit or rabbits or cat or cats or dog or dogs or cattle or bovine or monkey or monkeys or trout or marmoset\$1).ti. and animal experiment/ (1274735)
- 76 Animal experiment/ not (human experiment/ or human/) (2683276)
- 77 or/64-76 (4688054)
- 78 63 not 77 (5996665)
- 79 43 and 78 (10253)

## Cochrane Library

Search Name: 2025-02-10\_PPSP in orthopedic surgery

Date Run: 10/02/2025 7:43:52

Comment:

- ID Search Hits
- #1 [mh "Orthopedic Procedures"] 20448
- #2 (orthop?edic\* NEAR/2 (procedure\* or surgery or surgical or surgeries))
- #3 Acetabuloplasty or acetabuloplasties 18
- #4 (((amputation or amputations) NEAR/2 surgical) or (disarticulation or hemipelvectomy)) 787
- #5 (Arthrodesis or arthrodeses or spinal fusion\* or lumbar fusion\* or cervical fusion\* or spondylodeses or spondylodesis or spondylosyndesis) 5113

12254

- #6 (Arthroplasty or arthroplasties or (bone tunnel NEAR (enlargement or enlargements or widening))) 17653
- #7 Arthroscopy or arthroscopic 7673

#8 Bone lengthening 182 #9 Bone transplantation or bone grafting 10877 #10 cementoplasty or cementoplasties or osteoplasties or osteoplasty #11 ((Collateral or cruciate) NEAR ligament reconstruction) 3094 #12 diskectomy or diskectomies or discectomy or discectomies 2081 #13 fascietomy or fasciotomy 270 #14 ((fracture or skeletal) NEAR (surgery or fixation\*)) 8057 #15 (Intervertebral near (Disc or disk) near (Chemolysis or chemolyses or nucleolyses or nucleolysis)) 54 #16 Laminectomy or laminectomies or laminotomies or laminotomy 1074 #17 Laminoplasty or laminaplasties or laminaplasty or laminoplasties 186 #18 Limb Salvage 631 #19 Osteotomy or osteotomies 3025 #20 Synovectomy or synovectomies or synovium resection\* 170 #21 Tendon transfer\* 306 #22 Tenodesis or tenodeses 278 #23 (Tenotomy or ((heel cord or heel-cord or tendon) NEAR (release or releases or lengthening or lengthenings))) 435 #24 vertebroplasty or vertebroplasties 502 #25 232 Viscosupplementation or viscosupplementations #26 ((back or spine or spinal or cervical or lumbar or vertebra\* or neck or hand or knee or hip or muscle or musculoskeletal or carpal tunnel or orthoped\* or orthopaed\*) adj3 (surgery or surgeries or surgical or procedure\*)).mp 21605 #27 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 82743 MeSH descriptor: [Pain, Postoperative] explode all trees #28 22294 #29 ((postoperative NEAR/6 pain\*) or (post-operative NEAR/6 pain\*) or post-operativepain\*) 55818 #30 ((post-operative NEAR/6 analgesi\*) or (postoperative NEAR/6 analgesi\*)) 25927

- #31 ((post-surgical NEAR/6 pain\*) or (post surgical NEAR/6 pain\*) or (post-surgery NEAR/6 pain\*) or (post NEAR surg\* NEAR pain\*)) 4944 #32 ((post\* NEAR pain\*) or pain relief after or pain following surg\*) 90905 #33 ((posttreatment NEAR/6 pain\*) or (pain control after NEAR/6 surg\*) or (post-surg\* and (pain\* or discomfort))) 21355 ((analgesi\* NEAR/6 postoperat\*) or (analgesi\* NEAR/6 post-operat\*) or (pain\* NEAR/6 after surg\*) or (pain\* NEAR/6 after operat\*) or (analgesi\* NEAR/6 after operat\*)) 45839 #35 ((pain\* or analgesi\*) NEAR/6 ((follow\* NEXT operat\*) or (follow\* NEXT surg\*))) 889 #36 #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 105821 #37 #27 AND #36 19420 #38 chronic\* or constant\* or continu\* or persist\* or longterm or long-term or longstanding or long-standing or long lasting or long-lasting or phantom or sustain\* or prolong\* or recurr\* 639062 #39 preoperative or pre-operative 52287
- noo prooperative or pro operative ezzer
- #40 peri-operative or perioperative 30913
- #41 #38 or #39 or #40 691925
- #42 #37 and #41 in Trials 10454

PsycInfo (OVID)

Database:

APA PsycInfo 1806 to February 2025 Week 1

Search Strategy:

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- 1 (orthop?edic\* adj2 (procedure\* or surgery or surgical or surgeries)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (793)
- 2 (Acetabuloplasty or acetabuloplasties).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (0)

- 3 (((amputation or amputations) adj2 surgical) or (disarticulation or hemipelvectomy)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (125)
- 4 (Arthrodesis or arthrodeses or spinal fusion\* or lumbar fusion\* or cervical fusion\* or spondylodeses or spondylodesis or spondylosyndeses or spondylosyndesis).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (182)
- 5 (Arthroplasty or arthroplasties or (bone tunnel adj (enlargement or enlargements or widening))).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (974)
- 6 (Arthroscopy or arthroscopic).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (105)
- 7 Bone lengthening.mp. (5)
- 8 (Bone transplantation or bone grafting).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (14)
- 9 (cementoplasty or cementoplasties or osteoplasties or osteoplasty).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (8)
- 10 ((Collateral or cruciate) adj ligament reconstruction).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (107)
- 11 (diskectomy or diskectomies or discectomy or discectomies).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (117)
- 12 (fascietomy or fasciotomy).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (10)
- 13 ((fracture or skeletal) adj (surgery or fixation\*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (198)
- 14 (Intervertebral adj (Disc or disk) adj (Chemolysis or chemolyses or nucleolyses or nucleolysis)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (0)
- 15 (Laminectomy or laminectomies or laminotomies or laminotomy).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (306)

- 16 (Laminoplasty or laminaplasties or laminaplasty or laminoplasties).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (10)
- 17 Limb Salvage.mp. (32)
- 18 (Osteotomy or osteotomies).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (60)
- 19 (Synovectomy or synovectomies or synovium resection\*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (1)
- 20 Tendon transfer\*.mp. (14)
- 21 (Tenodesis or tenodeses).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (8)
- 22 (Tenotomy or ((heel cord or heel-cord or tendon) adj (release or releases or lengthening or lengthenings))).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (33)
- 23 (vertebroplasty or vertebroplasties).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (46)
- 24 (Viscosupplementation or viscosupplementations).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (6)
- 25 ((back or spine or spinal or cervical or lumbar or vertebra\* or neck or hand or knee or hip or muscle or musculoskeletal or carpal tunnel or orthoped\* or orthopaed\*) adj3 (surgery or surgeries or surgical or procedure\*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (3222)
- 26 or/1-25 (4843)
- 27 ((postoperative adj6 pain\*) or (post-operative adj6 pain\*) or post-operative-pain\*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (2899)
- 28 ((post-operative adj6 analgesi\*) or (postoperative adj6 analgesi\*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (604)
- 29 ((post-surgical adj6 pain\*) or (post surgical adj6 pain\*) or (post-surgery adj6 pain\*) or (post adj surg\* adj pain\*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (236)

- 30 ((post\* adj pain\*) or pain relief after or pain following surg\*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (2407)
- 31 ((posttreatment adj6 pain\*) or (pain control after adj6 surg\*) or (post-surg\* and (pain\* or discomfort))).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (648)
- 32 ((analgesi\* adj6 postoperat\*) or (analgesi\* adj6 post-operat\*) or (pain\* adj6 after surg\*) or (pain\* adj6 after operat\*) or (analgesi\* adj6 after operat\*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (1092)
- 33 ((pain\* or analgesi\*) adj6 ("follow\* operat\*" or "follow\* surg\*")).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (140)
- 34 (chronic\* or constant\* or continu\* or persist\* or longterm or long-term or longstanding or long-standing or long-lasting or phantom or sustain\* or prolong\* or recurr\*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (959147)
- 35 (chronic\* or constant\* or continu\* or persist\* or longterm or long-term or longstanding or long-standing or long-lasting or long-lasting or phantom or sustain\* or prolong\* or recurr\*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (959147)
- 36 (preoperative or pre-operative).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (6086)
- 37 (peri-operative or perioperative).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] (1980)
- 38 35 or 36 or 37 (964605)
- 39 or/27-33 (4232)
- 40 26 and 39 (768)
- 41 38 and 40 (450)

## CINAHL

#	Query	Limiters/Expanders	Last Run Via	Results
S65	S23 AND S64	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	2,507
S64	S59 AND S63	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	6,437
S63	S60 OR S61 OR S62	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,507,828
S62	TX peri-operative or perioperative	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	56,397
S61	TX preoperative or pre- operative	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	88,327
S60	TX chronic* or constant* or continu* or persist* or longterm or long-term or longstanding or long-standing or long lasting or long-lasting or phantom or sustain* or prolong* or recurr*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,407,465
S59	S49 AND S58	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	12,292

S58	S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR S57	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	36,339
S57	TX ((pain* or analgesi*) N6 ("follow* operat*" or "follow* surg*"))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	474
S56	TX ((analgesi* N6 postoperat*) or (analgesi* N6 postoperat*) or (pain* N6 after surg*) or (pain* N6 after operat*) or (analgesi* N6 after operat*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	7,525
S55	TX ((posttreatment N6 pain*) or (pain control after N6 surg*) or (postsurg* and (pain* or discomfort)))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	2,135
S54	TX ((post* N1 pain*) or pain relief after or pain following surg*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	30,887
S53	TX ((post-surgical N6 pain*) or (post surgical N6 pain*) or (post-surgery N6 pain*) or (post adj surg* N1 pain*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	620
S52	TX ((post-operative N6 analgesi*) or (postoperative N6 analgesi*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	5,320
S51	TX ((postoperative N6 pain*) or (post-operative N6 pain*) or post-operative-pain*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	28,464
S50	(MH "Postoperative Pain")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases	21,472

			Search Screen - Advanced Search Database - CINAHL	
S49	S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	338,753
S48	TX ((back or spine or spinal or cervical or lumbar or vertebra* or neck or hand or knee or hip or muscle or musculoskeletal or carpal tunnel or orthoped* or orthopaed*) N3 (surgery or surgeries or surgical or procedure*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	257,343
S47	TX Viscosupplementation or viscosupplementations	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	240
S46	TX vertebroplasty or vertebroplasties	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,736
S45	TX (Tenotomy or ((heel cord or heel-cord or tendon) N1 (release or releases or lengthening or lengthenings)))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,363
S44	TX Tenodesis or tenodeses	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,350
S43	TX Tendon transfer*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases	913

			Search Screen - Advanced Search Database - CINAHL	
S42	TX (Synovectomy or synovectomies or synovium resection*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	466
S41	TX Osteotomy or osteotomies	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	14,438
S40	(MH "Limb Salvage") OR "Limb Salvage"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	2,705
S39	TX Laminoplasty or laminaplasties or laminaplasty or laminoplasties	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	826
S38	TX Laminectomy or laminectomies or laminotomies or laminotomy	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	3,472
S37	TX (Intervertebral N1 (Disc or disk) N1 (Chemolysis or chemolyses or nucleolyses or nucleolysis))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	91
S36	TX ((fracture or skeletal) N1 (surgery or fixation*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	36,776
S35	TX fascietomy or fasciotomy	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,159

S34	TX diskectomy or diskectomies or discectomy or discectomies	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	4,209
S33	TX ((Collateral or cruciate) N1 ligament reconstruction)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	9,719
S32	TX cementoplasty or cementoplasties or osteoplasties or osteoplasty	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	425
S31	TX (Bone transplantation or bone grafting)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	9,346
S30	TX Bone lengthening	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,083
S29	TX Arthroscopy or arthroscopic	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	31,659
S28	TX (Arthroplasty or arthroplasties or (bone tunnel N1 (enlargement or enlargements or widening)))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	59,936
S27	TX Arthrodesis or arthrodeses or spinal fusion* or lumbar fusion* or cervical fusion* or spondylodeses or spondylodesis or spondylosyndeses or spondylosyndesis	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	18,493
S26	TX (((amputation or amputations) N2	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases	810

	surgical) or (disarticulation or		Search Screen - Advanced Search	
	hemipelvectomy))		Database - CINAHL	
S25	TX Acetabuloplasty or acetabuloplasties	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	199
S24	(MH "Orthopedic Surgery+")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	138,907
S23	S22 NOT S21	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,028,728
S22	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	1,076,612
S21	S19 NOT S20	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	210,339
S20	MH (human)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	2,859,566
S19	S16 OR S17 OR S18	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	244,661
S18	TI (animal model*)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	3,633

S17	MH (animal studies)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	153,173
S16	MH animals+	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	100,469
S15	AB (cluster W3 RCT)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	525
S14	MH (crossover design) OR MH (comparative studies)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	506,418
S13	AB (control W5 group)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	153,038
S12	PT (randomized controlled trial)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	160,780
S11	MH (placebos)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	14,244
S10	MH (sample size) AND AB (assigned OR allocated OR control)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	4,511
S9	TI (trial)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	202,349

S8	AB (random*)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	412,431
S7	TI (randomised OR randomized)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	158,288
S6	MH cluster sample	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	5,934
S5	MH pretest-posttest design	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	58,206
S4	MH random assignment	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	89,833
S3	MH single-blind studies	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	16,233
S2	MH double-blind studies	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	54,446
S1	MH randomized controlled trials	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL	148,255