

Negative Outcomes in Regional Anesthesia Clinical Trials: A Bibliometric Analysis Subspecialty vs General Anesthesia Journals

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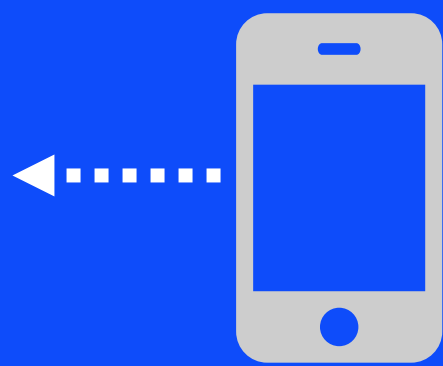
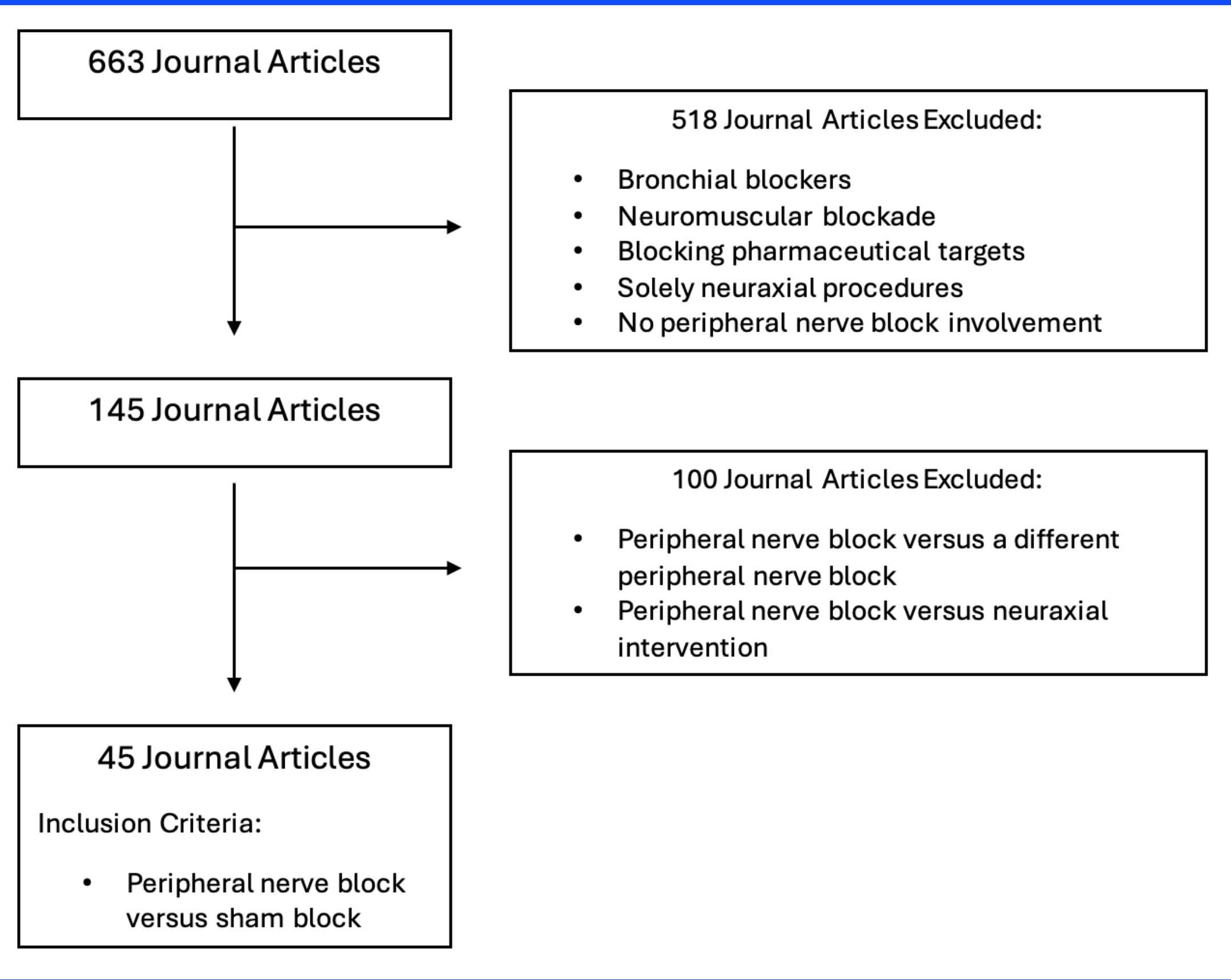
BACKGROUND:

- 1. Publishing more positive findings compared to negative findings often leads to overestimating the effectiveness of a treatment or intervention
- 2. Our hypothesis was that there would be fewer negative - that is, failing to detect a difference in intervention vs control group, randomized clinical trials (RCTs) published in subspecialty regional anesthesia journals compared to other general anesthesiology journals

METHODS:

- 1. Systemic literature search conducted using PubMed Advanced Search interface with keyword "block" in six major anesthesiology journals: *Regional Anesthesia & Pain Medicine, Anesthesiology, British Journal of Anesthesia, Anaesthesia, Anesthesia & Analgesia, and Journal of Clinical Anesthesia* published between January 1, 2022 to December 31, 2025.
- 2. Only RCTs comparing peripheral nerve block (PNB) or fascial plane block versus a sham block were included
- 3. Primary Outcome: Compare the number of positive and negative studies in *Regional Anesthesia & Pain Medicine* compared to 5 major general anesthesiology journals using a chi-square test analysis

Regional subspecialty journal is not more likely to publish negative findings compared to general anesthesiology journals



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Table 1. Positive and Negative Findings in subspecialty journal compared to other five major journals in general anesthesiology published between January 1, 2022 to December 31, 2025

	Positive Findings	Negative Findings
Regional Anesthesia & Pain Medicine	8	7
General Anesthesiology Journals	12	18

Table 2. Multivariate logistic regression model controlling for trial size shows no significant difference in publishing negative

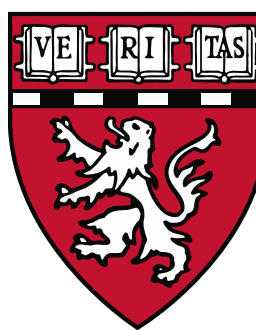
Independent Variable	Coefficient	Standard Error	p-value
Subspecialty vs General	0.86	0.74	0.24
Trial Size	-0.66	0.70	0.35

Efficacy of laparoscopic-installed rectus sheath block for postoperative pain reduction in transabdominal preperitoneal inguinal hernia repair: a double-blind, randomised-controlled trial	Negative	Anaesthesia	2025
Analgic efficacy of continuous erector spinae plane block vs. opioid-based regimen for postoperative pain management following video-assisted thoracoscopic lung resection: a prospective, randomised, open-label, non-inferiority trial	Positive	Anaesthesia	2025
Time to medical fitness for discharge following surgical evacuation of chronic subdural haematoma with general or regional anaesthesia: a prospective randomised trial	Negative	Anaesthesia	2022
The analgesic effect of transversalis fascia plane block after caesarean section under spinal anaesthesia with intrathecal morphine: a randomised controlled trial	Positive	Anaesthesia	2024
The effect of anterior quadratus lumborum block on morphine consumption in minimally invasive colorectal surgery: a multicentre, double-blind, prospective randomised placebo-controlled trial	Negative	Anaesthesia	2024
Preoperative Ultrasound-Guided Internal Branch Block of Superior Laryngeal Nerve Reduces Postoperative Sore Throat Caused by Double Lumen Endotracheal Intubation: A Randomized Trial	Positive	Anesth Analg	2023
Single-Shot Lumbar Erector Spinae Plane Block in Total Hip Replacement: A Randomized Clinical Trial	Negative	Anesth Analg	2022
Ultrasound-guided Superficial Cervical Plexus Blocks for Persistent Pain after Suboccipital Craniotomies: A Randomized Trial	Positive	Anesthesiology	2025
Effects of Serratus Anterior Plane Block on Early Recovery from Thoracoscopic Lung Resection: A Randomized, Blinded, Placebo-controlled Trial	Negative	Anesthesiology	2024
Ultrasound-guided supragluteal fascia iliaca compartment block and early postoperative analgesia after total hip arthroplasty: a randomised controlled trial	Negative	Br J Anaesth	2024
Quality of recovery after pericapsular nerve group (PENG) block for primary total hip arthroplasty under spinal anaesthesia: a randomised controlled observer-blinded trial	Positive	Br J Anaesth	2023
Serratus anterior and pectoralis plane blocks for robotically assisted mitral valve repair: a randomised clinical trial	Negative	Br J Anaesth	2023
Continuous serratus anterior block for sternotomy analgesia after cardiac surgery: a single-centre feasibility study	Negative	Br J Anaesth	2025
Effect of intraoperative paravertebral or intravenous lidocaine infusion on postoperative complications and inflammation after lung resection surgery: a randomised controlled trial	Positive	Br J Anaesth	2025
Impact of superficial and deep parasternal blocks on recovery after cardiac surgery with sternotomy: a randomised controlled trial	Negative	Br J Anaesth	2025

Systemic lidocaine versus erector spinae plane block for improving quality of recovery after laparoscopic cholecystectomy: A randomized controlled trial	Negative	J Clin Anesth	2024
Comparison of three different methods of postoperative analgesic effects in laparoscopic major liver resection (systemic analgesia vs. erector spinae plane block vs. quadratus lumborum block): A randomized controlled trial	Negative	J Clin Anesth	2025
Opioid-free anaesthesia protocol based on thoracic paravertebral block enhances postoperative recovery after breast cancer surgery: A two-center, prospective, randomised, controlled trial	Positive	J Clin Anesth	2025
Efficacy of erector spinae plane block for minimally invasive mitral valve surgery: Results of a double-blind, prospective randomized placebo-controlled trial	Negative	J Clin Anesth	2023
Erector spinae plane block for postoperative analgesia in robotically-assisted coronary artery bypass surgery: Results of a randomized placebo-controlled trial	Negative	J Clin Anesth	2023
Bilateral erector spinae plane blocks in children undergoing cardiac surgery: A randomized, controlled study	Positive	J Clin Anesth	2022
Pectoserratus plane block versus erector spinae plane block for postoperative opioid consumption and acute and chronic pain after breast cancer surgery: A randomized controlled trial	Positive	J Clin Anesth	2022
Effect of postoperative intermittent boluses of subcostal quadratus lumborum block on pulmonary function recovery and analgesia after gastrectomy: a randomized controlled clinical trial	Negative	J Clin Anesth	2024
Erector spinae plane block versus paravertebral block and placebo for recovery quality after percutaneous nephrolithotomy: A randomized controlled trial	Positive	J Clin Anesth	2026
Inter-vertebral plane (ISP) block for postoperative analgesia following cervical spine surgery: A prospective randomized controlled trial	Positive	J Clin Anesth	2022
Analgic efficacy of erector spinae plane block in patients undergoing major gynecologic surgery: A randomized controlled study	Negative	J Clin Anesth	2024
Analgic effects of ultrasound-guided preoperative posterior Quadratus Lumborum block in laparoscopic hepatectomy: A prospective double-blind randomized controlled trial	Negative	J Clin Anesth	2024
Efficiency of interpleural and pectoserratus plane blocks for breast surgery: A randomized controlled trial	Positive	J Clin Anesth	2025
Interpleural-pectoserratus plane (PECS II) block in patients undergoing trans-axillary thoracic outlet decompression surgery: A prospective double-blind, randomized, placebo-controlled clinical trial	Negative	J Clin Anesth	2022
Postoperative erector spinae plane block does not reduce morphine consumption after lumbar spinal fusion: A randomized controlled trial	Negative	J Clin Anesth	2025

Iliopsoas plane block does not improve pain after primary total hip arthroplasty in the presence of multimodal analgesia: a single institution randomized controlled trial	Negative	Reg Anesth Pain Med	2025
Pericapsular nerve group (PENG) block for early pain management of elderly patients with hip fracture: a single-center double-blind randomized controlled trial	Positive	Reg Anesth Pain Med	2023
Serratus plane block versus standard of care for pain control after totally endoscopic aortic valve replacement: a double-blind, randomized, controlled, superiority trial	Positive	Reg Anesth Pain Med	2024
Patient-centered results from a multicenter study of continuous peripheral nerve blocks and postamputation phantom and residual limb pain: secondary outcomes from a randomized, clinical trial	Positive	Reg Anesth Pain Med	2023
Anterior quadratus lumborum block for analgesia after living-donor renal transplantation: a double-blinded randomized controlled trial	Negative	Reg Anesth Pain Med	2024
Efficacy of ultrasound-guided single-injection erector spinae plane block for thoracoscopic wedge resection: a prospective randomized control trial	Negative	Reg Anesth Pain Med	2022
Effect of anterior quadratus lumborum block with ropivacaine on the immune response after laparoscopic surgery in colon cancer: a substudy of a randomized clinical trial	Negative	Reg Anesth Pain Med	2024
Insignificant influence of the intertransverse process block for major breast cancer surgery: a randomized, blinded, placebo-controlled, clinical trial	Negative	Reg Anesth Pain Med	2024
Anterior quadratus lumborum block does not reduce postoperative opioid consumption following laparoscopic hemicolectomy: a randomized, double-blind, controlled trial in an ERAS setting	Negative	Reg Anesth Pain Med	2023
Preoperative pericapsular nerve group (PENG) block for total hip arthroplasty: a randomized, placebo-controlled trial	Positive	Reg Anesth Pain Med	2022
Efficacy of iliopsoas plane block for patients undergoing hip arthroscopy: a prospective, triple-blind, randomized, placebo-controlled trial	Positive	Reg Anesth Pain Med	2025
Oblique subcostal transverse abdominis plane block for postoperative pain control in patients undergoing open sublay mesh hernia repair: a prospective double-blind randomized placebo-controlled clinical trial	Negative	Reg Anesth Pain Med	2025
Subpectineal obturator nerve block reduces opioid consumption after hip arthroscopy: a triple-blind, randomized, placebo-controlled trial	Positive	Reg Anesth Pain Med	2025
Bilateral ultrasound-guided maxillary and mandibular combined nerves block reduces morphine consumption after double-jaw orthognathic surgery: a randomized controlled trial	Positive	Reg Anesth Pain Med	2025
No quadriceps muscle weakness following anterior quadratus lumborum block compared with placebo: a randomized, non-inferiority, blinded, volunteer trial	Positive	Reg Anesth Pain Med	2025

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