

PERIPHERAL NERVE BLOCK USES IN THE PERIANESTHESIA SETTING FOR HIP AND KNEE SURGERIES: AN INTEGRATIVE REVIEW

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Overview: The use of Peripheral Nerve Blocks (PNBs) remains controversial among the medical community. PNBs may help reduce pain post-operatively, help patients move around faster, and shorten recovery time for certain individuals; however, there are disadvantages associated with their use, such as being time consuming and placing surgical patients at risk for paralysis, infections, and falls.

Purpose: The purpose of this integrative review was to examine the latest research on the use of PNBs in orthopedic surgeries, which was limited to surgeries involving the hip or knee. The data will be used to inspect the use of PNBs in pain management, recovery time, and surgical outcomes that could help nurses provide better care for post-surgical orthopedic patients.

Methods: The methods for this review consisted of using online databases, CINAHL, PubMed, and Cochrane to research the latest research studies on PNBs in orthopedic surgical cases. The inclusion criteria were as follows: published research studies from peer reviewed journals, articles published between 2009 and 2014, and involved a PNB in hip and knee surgeries. The exclusion criteria were studies that did not include surgeries on the hip or knee, and/or those that focused on the anesthetic techniques used for PNBs. There were 15 total articles that matched the inclusion criteria.

Significance of Findings: The use of PNBs in hip surgeries seems promising, and they are safe and beneficial when two or more nerves are blocked. The overall results of the knee studies found that femoral blocks are reliable, but associated with increase time for placement and training for the anesthetic team. Furthermore, the findings suggest that the patients' age should be considered when dosing the PNBs, metropolitan areas used more PNBs, and lower extremity joints were blocked the most.

Implications for Perianesthesia Nurses/Future Research: PNBs are affective with reducing post-op pain, lowering costs, and reducing the recovery time for patients. Nurses should be able to properly educate the patients and keep them safe following a placement of a PNB. Nurses must also be able to assess for Local Anesthetic Systemic Toxicity and have policies for lipid treatment. They must understand that a PNB will not cover the entire joint, and that opioids may still be needed. Translation to practice should begin with educating the patient on the positive outcomes of PNBs through direct patient teachings. Retrospective studies could be conducted by nurses to examine if there is a particular subset of patients that have benefited from PNBs. Additionally, it has been noted that there has been an increase in the use of adductor canal nerve blocks for knee surgeries, and patients are able to ambulate sooner. These blocks have also been associated with less patient falls as compared to femoral blocks; therefore, further research is needed.