

Advancing Perioperative Excellence Through a High-Reliability Nursing-Led Nerve Block Model

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Introduction: In response to the growing demand for enhanced perioperative care and improved patient outcomes, our institution implemented a structured peripheral nerve block program within a designated Robotic Center of Excellence. This initiative aims to optimize regional anesthesia delivery through a dedicated staffing model, interdisciplinary collaboration, and alignment with multimodal pain management and ERAS protocols.

Identification of the Problem: Prior to implementation, delays in nerve block administration, inconsistent workflows, and limited coordination between nursing and anesthesia teams led to inefficiencies in surgical preparation and pain control. As the program evolved into a Center of Excellence, the need for streamlined processes and improved pain strategies became clear.

QI Question/Purpose of the Study: This initiative aimed to determine whether a structured nerve block program could improve efficiency, enhance patient outcomes, and strengthen collaboration between nursing and anesthesia teams, while supporting multimodal analgesia within ERAS pathways.

Methods: A standardized staffing model was developed, introducing the Block Coordinator role—a specialized nurse responsible for patient preparation and coordination with anesthesia providers. Efficient workflows and real-time communication protocols were established to support robotic surgical cases. Data was collected on first-case on-time starts, patient satisfaction, and recovery outcomes.

Outcomes/Results: Initial data showed improved block efficiency and reduced surgical delays. Postoperative phone calls revealed high patient satisfaction, particularly regarding pain control and overall experience.

Discussion: The integration of a structured nerve block program within a Robotic Center of Excellence demonstrates the value of interdisciplinary collaboration and nursing leadership in perioperative care. The Block Coordinator role has been essential in streamlining workflows and supporting multimodal pain strategies.

Conclusion: A dedicated peripheral nerve block program, supported by specialized nursing and collaborative practice, enhances perioperative efficiency and facilitates multimodal pain management aligned with ERAS principles, contributing to improved outcomes in high-acuity surgical cases.

Implications for perianesthesia nurses and future research: This model highlights the vital role of perianesthesia nurses in coordinating care and advancing recovery. Future research should explore long-term outcomes, PACU stay, satisfaction comparisons, and cost-effectiveness.