

**Abstract Title:** Evaluation of Opioid Sparing Effectiveness of Peripheral Nerve Blocks for Major Lower Extremity Amputation in a US Military Veteran Population

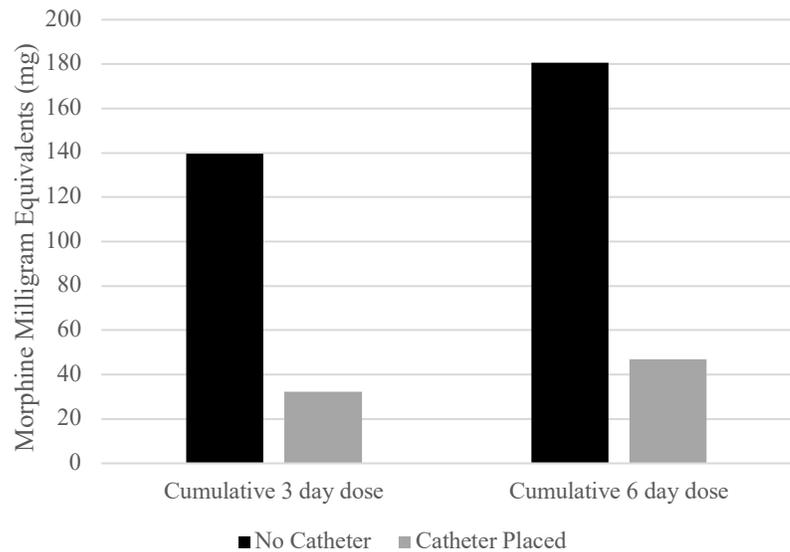
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**Background/Introduction:** Pain management for major lower extremity amputation (MLEA) patients has been a focus of study for some time, with perioperative, short term, and chronic pain all requiring attention. Different analgesia techniques to improve pain relief in this patient population have been evaluated for their opioid sparing effectiveness following MLEA. This retrospective chart review seeks to evaluate the effectiveness of continuous peripheral nerve block (PNB) catheters on post-operative opioid use and length of stay (LOS) in MLEA in US military veterans.

**Methods:** We identified patients at the Clement J. Zablocki VA Medical Center who underwent MLEA over a three-year period ending in 2020. Data was collected from VA medical record system, CPRS. We collected in-patient opioid use data for days zero through six post-operatively and hospital LOS for patients receiving standard care alone or standard care with PNB catheters for pain management.

**Results:** 61 patients met the inclusion criteria for our project, including 21 (34.4 %) patients who received PNB catheters pre-operatively, and 40 (65.6%) patients who used standard care alone. Patients with PNB catheters utilized fewer morphine milligram equivalents (MME) on post-operative days zero (5 vs. 18,  $p < 0.01$ ) and one (11 vs. 46,  $p$  value  $< 0.05$ ). Cumulative MME consumption at three (32 vs. 140,  $p < 0.05$ ) and six days (47 vs. 180,  $p < 0.05$ ) was also lower for the PNB catheter group. LOS and post-operative opioid consumption at days two through six were all lower for the catheter group, however, this decrease was not statistically different.



**Figure 1.** Average cumulative morphine milligram equivalents (MMEs) at 3 and 6 days postoperatively. Opioid consumption was significantly less for the PNB catheter group at both time points ( $p < 0.05$ ).

**Conclusion:** This retrospective evaluation found in US military veterans undergoing major lower extremity amputation, the use of continuous catheters in addition to standard care significantly decreased opioid consumption in the immediate post-operative period.