

Continuous Peripheral Nerve Blocks: The Jury Is In

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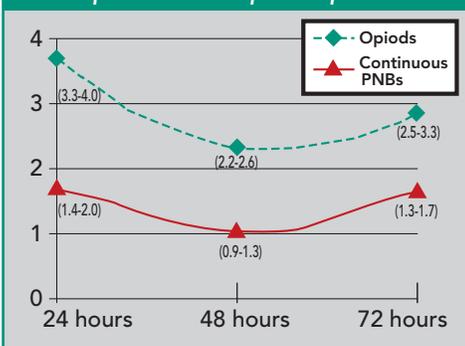
FOR TREATING POST-OP PAIN, opioids pale in comparison to continuous peripheral nerve blocks (PNBs). Continuous peripheral nerve blocks offer superior pain control, fewer side effects and better patient satisfaction,

All continuous peripheral nerve blocks provided superior pain control to opioids regardless of location and frequency. However, all PNBs are not created equal. Our analysis suggests that continuous PNBs are significantly more

patient because patients needed fewer interventions for treating nausea/vomiting. The most common PNB-related complication was motor block, which occurred in 31.4 percent of patients.

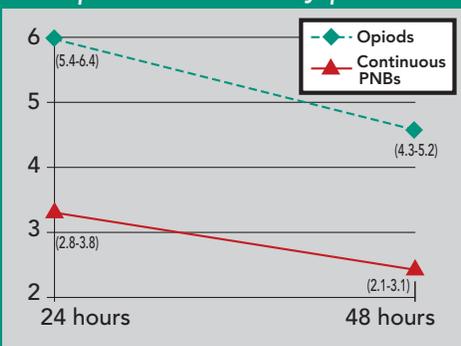
Visual Analog Scale Scores

On average, PNB patients feel less pain than opioid patients



Maximum VAS Scores

Even the most uncomfortable PNB patients are fairly pain-free.



Adapted from: *Does Continuous Peripheral nerve Block Provide Superior Pain Control to Opioids? A Meta-Analysis.* *Anesth Analg* 2006; 102:248-57. Numbers were derived from 19 studies.

and they offer certain cost savings in treating opioid related side effects, according to our recent meta-analysis of 19 controlled studies and 603 patients.

Our analysis shows that continuous peripheral nerve blocks consistently helped reduce pain through all three post-operative infusion days. Mean Visual Analog Scale scores were approximately 50 percent lower in peripheral nerve block patients than in opioid-treated patients, and the highest recorded VAS scores at 24 hours post-op were substantially lower in PNB patients than in opioid-treated patients.

effective than intermittently-bolused PNBs. It also suggests that continuous PNBs that provide nearly full analgesic coverage of all affected nerves—such as brachial plexus PNBs, which block all nerves to the arm—are more effective than those that do not—like femoral blocks, which may cover just 70 to 80 percent of affected nerves for certain surgeries.

Since PNB patients took fewer opioids in our analysis, they also had fewer opioid-related side effects—including nausea/vomiting, sedation and pruritus—and this helped reduce the cost of care. We estimate that continuous PNBs saved approximately \$10.12 per

All told, these benefits translate into happier patients. Studies suggest that continuous PNB patients have higher satisfaction levels, better sleep patterns, improved rehab and shorter hospital stays. And while we need more research to confirm these findings and determine the ideal dosing regimens and durations for each block and procedure, I think it's safe to say the jury is "in" when it comes to treating post-op pain.

Continuous PNBs offer superior pain control, produce fewer side effects, may have significant cost

savings, and make patients happier than opioid-based regimens.



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Meta-Analysis. *Anesth Analg* 2006;102:248-57.

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