

THREE WAYS SINGLE-SHOT BLOCKS FALL SHORT OF PHYSICIAN EXPECTATIONS

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I started doing single-shot nerve blocks for post-operative pain management twenty-six years ago, in 1990. Then, twelve years ago, I began using continuous peripheral nerve blocks (CPNBs) for total shoulder replacement pain management, and it became routine in my practice. I'm not the only one who has implemented changes. Newer, more effective techniques, such as CPNBs, have become more widely used over the last several years.¹ Clinical evidence indicates three primary reasons clinicians should reevaluate their use of single-shot nerve blocks:

1 SHORT DURATION

There's no question that recovery from surgical procedures can extend well beyond the pain relief offered by single-shot nerve blocks: one study showed that single-shot nerve blocks provide effective analgesia for up to only six hours with motion or eight hours at rest.² Unfortunately, after the effects of single-shot nerve blocks wear off, patients are still vulnerable to immense pain. When it's possible for patients to experience significant pain during those first few days following surgery,^{2,3} it makes more sense to use a regional therapy that provides support for the full duration of their pain – rather than just up to eight hours.

2 "REBOUND" PAIN

When determining the best means to provide pain management, it's important to consider the full recovery experience. When pain extends beyond the six-eight hours of pain relief that single-shot nerve blocks generally cover, a phenomenon called "rebound" pain – seen in patients when the single-shot nerve block subsides – can occur following this period, potentially worsening the general experience for the patient. In a matter of minutes, patients can go from experiencing no pain to feeling its full extent. In a recent study, patients

receiving a single-shot block suffered rebound pain at 24 hours – and later experienced similar pain severity compared with those who did not receive a single-shot nerve block.²

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3 NEED FOR NARCOTICS

Single-shot nerve block's short duration and associated rebound pain can lead to an increased need for narcotics.⁴ Rarely ideal for patient recovery, narcotics carry a range of additional risks,⁵ including addiction and side effects such as nausea, vomiting, and drowsiness. In some surgical cases, the side effects of narcotics can delay recovery.⁶

It's no surprise that patients themselves would prefer to avoid narcotics: research shows that 72% of patients would choose non-narcotic pain medication for post-surgical pain management.⁷

The short duration of pain relief, the possibility of "rebound" pain, and the increased need for narcotics are all undesirable effects from both a patient and physician perspective. Alternatively, continuous peripheral nerve blocks (CPNBs) are highly effective first-line analgesic

therapies – providing an attractive alternative to some of the drawbacks of single-shot nerve blocks.

Overall, CPNBs provide more effective pain management when compared to single-shot nerve blocks.¹ With CPNBs, pain control can be extended beyond the six-eight hours provided by single-shot nerve blocks to ninety-six hours,⁸ thereby significantly reducing the chance for rebound pain.⁹ Administered in combination with the ON-Q* Pain Relief System, CPNBs have been shown to reduce narcotic consumption and increase patient satisfaction scores.¹ The ON-Q* Pain Relief System is a non-narcotic titratable elastomeric pump that automatically and continuously delivers a regulated flow of local anesthetic in close proximity to nerves – providing customized, targeted pain relief for up to five days.¹⁰

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It's time for all clinicians to take a hard look at single-shot nerve blocks and determine if they still provide the best possible outcome for patients. Unlike the saying suggests, there's much to be gained from decreased pain.

Gregory Hickman, MD has a consulting/speaking financial relationship with Avanos Medical, Inc.

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