

## Postoperative analgesia for shoulder surgery: a review of current techniques

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Shoulder surgery is well recognised as having the potential to cause severe postoperative pain. Shoulder procedures are associated with a level of postoperative pain that may require opioid use for several days. The opioid requirement may be similar to that following gastrectomy or thoracotomy and opioid-only analgesic techniques for shoulder surgery are commonly associated with opioid-related adverse effects such as nausea and vomiting, pruritus, sleep disturbance and constipation. 'Multi-modal' analgesic approaches incorporating paracetamol, non-steroidal anti-inflammatory drugs and tramadol can reduce opioid requirements; however, opioid consumption still remains significant. This situation has led to the search for opioid-sparing techniques.

The aim of the presentation is to review current techniques of postoperative analgesia for shoulder surgery with the focus on effectiveness of different regional anaesthesia techniques commonly used in this field. This includes:

- Subacromial (bursal) or intra-articular infiltration of local anaesthetic (SBB).
- Suprascapular with or without axillary (circumflex nerve block).
- Single-injection ('single-shot') interscalene nerve block (SSISB).
- Continuous interscalene nerve block (CISB).

Subacromial / intra-articular local anaesthetic infiltration appears to perform only marginally better than placebo, and because the technique has been associated with chondrolysis, it can no longer be recommended. Single injection nerve blocks are limited by relatively short duration. Suprascapular nerve block reduces postoperative pain and opioid consumption following arthroscopic surgery. Continuous interscalene block incorporating a basal local anaesthetic infusion and patient controlled boluses is possibly the most effective analgesic technique following both major and minor shoulder surgery but it is an invasive procedure with potential complications. It should only be performed by practitioners with appropriate experience.

### References

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