

EPIDURAL STEROID INJECTIONS

CLINICAL QUESTION

Are epidural steroid injections effective in the management of chronic non-malignant low back pain and/or sciatica?

THE EVIDENCE

| Treatment | Condition | Comparator | Relevant Results/Authors' Conclusions [#] |
|--|---|--|--|
| Epidural steroid injections [†] | Chronic non-malignant low back pain and sciatica (definition of chronic pain not provided) | Bupivacaine ^a plus saline | Limited evidence that steroid injections with combined methylprednisolone ^a 80 mg (2 mL, epidural) and bupivacaine (0.25%, caudal route) provided pain relief, compared to bupivacaine (0.25%) plus saline (100 mL, epidural) after 1 to 3 injections. Follow-up results not reported. |
| Epidural steroid injections [‡] | Chronic non-malignant low back pain (definition of chronic pain not provided) | Midazolam ^a plus saline plus dextrose | Limited evidence that prednisolone (80 mg, epidural) plus dextrose (5%, intrathecal) was not more effective than saline (epidural) plus midazolam (2 mg) plus dextrose (3 mL of 5%, intrathecal) after 1 injection (pair). Follow-up at baseline and 2 months. |

[†]Based on one **AVERAGE*** quality randomised controlled trial (RCT), as assessed by the authors of this review, published in 1976; [‡]Based on one **AVERAGE*** RCT published in 1992; [#]Refer to Grading Key document for explanation of evidence grading

ADDITIONAL NOTES

^aDrugs included in the Compendium of Pharmaceuticals and Specialties (2004): methylprednisolone (Depo-Medrol[®], Solu-Medrol[®]), bupivacaine (Marcaine[®], Sensorcaine[®]), and midazolam (Versed[®], Sabex[®]).

IMPLICATIONS FOR PRACTICE

What we don't know:

- Which patients are most likely to benefit from epidural steroid injections?
- What is the efficacy of epidural steroid injections for patients with persistent sciatica?
- What is the risk of serious complications?
- What is the average number of epidural steroid injections needed for the treatment of chronic non-malignant low back pain and sciatica?
- What are the long-term (> 6 months) effects of epidural steroid injections?

Research Evidence: What we know

In patients with chronic non-malignant low back pain and/or sciatica, evidence indicates that the benefits of epidural steroid injections, if any, are short lived.

The transient **minor side effects** of epidural steroid injections include headache, nausea, pruritis, increased pain of sciatic distribution, and puncture of the dura.

Recommendation from Clinical Ambassadors

Epidural steroid injections are effective in acute sciatica, but are likely not useful in chronic back pain without leg pain.

The Clinical Ambassadors: Dr Pamela Barton, Dr Saifee Rashed, Dr Paul Taenzer

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Reference: This Evidence Brief is based on results from a **POOR*** quality systematic review (SR).
Koes BW, Scholten RJPM, Mens JMA, Bouter LM. Epidural steroid injections for low back pain and sciatica: An updated systematic review of randomized clinical trials. *Pain Digest* 1999;9(4):241-47.

***Quality ratings for RCTs & SR:** Good ● Average ● Poor ●

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