

MUSCLE RELAXANTS

CLINICAL QUESTION

Are muscle relaxants effective in the management of chronic non-malignant low back pain ≥ 3 months' duration?

THE EVIDENCE

Treatment	Condition	Comparator	Relevant Results/Authors' Conclusions [#]
Benzodiazepine (tetrazepam) [†]	Chronic non-malignant low back pain	Placebo	<p>Strong evidence that tetrazepam^a (3x 50 mg/day) is more effective than placebo in achieving short-term pain relief and overall improvement after 10 to 14 days.</p> <p>Moderate evidence that tetrazepam^a (3x 50 mg/day) is more effective than placebo in achieving a short-term decrease in muscle spasm after 10 days.</p>
Non-benzodiazepine (flupirtin, tolperisone) [‡]	Chronic non-malignant low back pain	Placebo	<p>Moderate evidence that flupirtin^a (4x 100 mg/day) is more effective in achieving short-term pain relief and overall improvement after 7 days, but not in reducing muscle spasm.</p> <p>Moderate evidence that tolperisone^a (3x 100 mg/day) is more effective in achieving short-term overall improvement after 21 days, but not in relieving pain or reducing muscle spasm.</p>

[†]Based on two **GOOD*** quality randomised controlled trials (RCTs), as assessed by the authors of this review, published in 1990 and 1992; [‡]Based on two **GOOD*** quality RCTs (one on flupirtin, one on tolperisone) published in 1996; [#]Refer to Grading Key document for explanation of evidence grading

ADDITIONAL NOTES

^aDrugs not in routine use in clinical practice and not included in the Compendium of Pharmaceuticals and Specialties (2004): tetrazepam (Mobiforton[®], Musaril[®], Myolastan[®], Tetramdura[®]), flupirtin (Katadolon[®]), and tolperisone (Mydocalm[®], Mydeton[®]).

There is a controversy in the recommendations found in national clinical guidelines for the management of low back pain in primary care. Some guidelines do not recommend using muscle relaxants, while others recommend the use of muscle relaxants alone, or in combination with non-steroidal anti-inflammatory drugs (NSAIDs), as optional.

IMPLICATIONS FOR PRACTICE

What we don't know:

- Are muscle relaxants more effective than other drugs (analgesics or NSAIDs) or treatments in reducing pain?
- Are peripherally acting muscle relaxants (drugs which did not act through the central nervous system) effective for the treatment of low back pain?

Research Evidence: What we know

Tetrazepam is effective for the short-term relief of chronic low back pain.

Muscle relaxants must be used with caution because of their possible side effects on the central nervous system (e.g. drowsiness, dizziness).

Recommendation from Clinical Ambassadors

Some muscle relaxants may be appropriate in selected patients for symptomatic relief of low back pain and muscle spasm.

Caution must be exercised with managing side effects, particularly drowsiness, and also with patient selection, given the abuse potential for this class of drugs.

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

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Reference: This Evidence Brief is based on results from a **GOOD*** quality systematic review (SR).
van Tulder MW, Touray T, Furlan AD, Solway S, Bouter LM. Muscle relaxants for non-specific low-back pain. *Cochrane Database Syst Rev.* 2003;(1):CD004252.

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

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