

Management of acute non-specific low back pain

Information for health professionals



Low back pain (LBP) is the second most common symptom for a visit to a GP in Australia.¹ Around 1% of patients with acute LBP (pain lasting up to 6 weeks)^{2,3} have a serious pathology, 5% have radiculopathy and the remaining 94% have non-specific pain.^{2,4} Imaging, including X-ray, is only indicated if there are red flags suggesting a need. Imaging and discussion of common, benign and irrelevant findings may provoke anxiety and prolong recovery.

The term 'non-specific' means that the anatomical structure causing the pain can't be identified because there are no tests available that can achieve this.^{2,5}

Acute non-specific LBP resolves spontaneously within a few months in the majority of patients. The evidence also shows that it's difficult for a treatment to accelerate spontaneous recovery that is already progressing.^{5,6}

As a result, rather than health professionals providing passive interventions to patients that may provide some pain relief and potentially start a process of dependence, a cornerstone of management of acute non-specific LBP is self-management.^{5,7,8,9}



Help patients to manage their own pain

Self-management aims to help patients develop more of their own abilities to monitor and manage their pain, and to be less reliant on interventions from health professionals.^{9,10}

Normal activities as far as possible

Self-management is based on clear information and advice about the nature of non-specific LBP and encouragement to stay active and continue doing normal activities as far as possible.^{2,8} This includes, for example, reassuring patients that they don't have serious damage or disease and informing them that the evidence shows that improvement is more likely when they do normal activities rather than rest in bed.^{2,6,7}

Normal activity advice varies for each individual patient. For an office worker it may mean going to work, but avoiding sitting for prolonged periods. For an athlete it may mean only doing light training.¹¹

Exercise may be helpful

Exercise as a form of therapy for acute non-specific LBP differs from the advice to stay active. It involves a program with specific aims such as increased aerobic fitness, strengthening or Pilates.⁵ While there is limited evidence of reduced pain for exercise therapies,⁵ gradually commencing a general physical activity program as part of self-management may be helpful.^{7,12}

Heat can be effective

Superficial heat such as a heating pad or blanket can be recommended as part of self-management.⁷ Evidence shows that heat is more effective than placebo for pain relief and improved function,¹³ which can allow continuation or resumption of activity.⁶



Consider other non-pharmacological treatments

Many additional non-pharmacological treatments for acute non-specific LBP are available, such as manipulation, mobilisation, massage, electrotherapies, psychological therapies and acupuncture.

In general, while there is insufficient evidence to recommend these treatments for acute non-specific LBP, they may be considered in addition to self-management and pharmacological treatment.^{5,6,8}



Use medications to enable activity

Pharmacological treatment can be prescribed for pain control to enable patients to stay active and continue doing normal activities as far as possible.⁶ The choice of medication requires finding a balance between the benefits, risks and costs.⁷

Paracetamol no longer clear cut

Paracetamol is first line therapy in existing Australian and international guidelines on the management of acute non-specific LBP.^{3,13,14} However a large Australian study, conducted in 2014 after these guidelines were written, provided new evidence that paracetamol was no more effective than placebo.³

Recent reviews of the evidence on pharmacological treatment for LBP, which included the 2014 Australian study, have found that recommending paracetamol as first-line therapy is no longer clear cut.^{5,13} Health professionals deciding whether to prescribe paracetamol may be advised to take into account its low cost, favourable side-effect profile and effectiveness for other acute pain conditions, in addition to the new evidence.¹³

NSAIDs may be considered more favourably

Non-steroidal anti-inflammatory drugs (NSAIDs) are second-line therapy for acute non-specific LBP in the guidelines due to the risk of side effects outweighing the benefits of pain control.^{2,7,14} However a recent review of the evidence found the status of NSAIDs was relatively unchanged since these guidelines were written.¹³

As a result, prescribing NSAIDs may be considered more favourably when compared to the lack of effectiveness of paracetamol.^{3,5} Deciding whether to prescribe NSAIDs involves assessment of risk profile and their use should be for short periods, with appropriate monitoring of side effects and follow-up review.⁶

The choice of NSAID may take into account that side effect profiles vary between drugs.⁵ In addition, there is evidence that short term over-the-counter doses may be well tolerated¹⁵ and paracetamol may be used in combination to reduce the daily doses of NSAIDs required and thus the risk of their adverse effects.⁶



Opioids have a limited role

- Opioids are only recommended for acute non-specific LBP if paracetamol and NSAIDs are not recommended or unable to provide pain control, according to Australian and international guidelines.^{2,6,7}

The role of opioids is limited because any pain control benefits are outweighed by the potential risks.⁷ While opioids may be effective for chronic non-specific LBP episodes,¹³ there is insufficient evidence for acute episodes.^{5,13} In addition, in short-term (at least 4 weeks) treatment for chronic non-cancer pain there's no significant difference between opioids and non-opioids for pain reduction.¹⁶

Opioid risks and dosage

The general risks of opioids may include increased pain sensitivity, exacerbated pre-existing pain, continued drug use even if no abuse or misuse is present, and societal risks of non-medical use, serious adverse events and death. There are also societal risks of opioid overdose, diversion and other harm.¹⁷

For back pain specifically, there is also evidence of harm. This includes a higher incidence of nausea, dizziness, constipation, vomiting, somnolence and dry mouth with short-term use^{13,18} and increased risk of long-term disability in workers with acute LBP who are prescribed opioids for more than 7 days.¹⁹

Opioids may be prescribed as a single agent or together with paracetamol,^{2,6,7} or NSAIDs. Use the lowest effective dose of opioids for the shortest time possible time required to relieve pain,^{7,8} with 3 days or less often sufficient. Ensure monitoring of side effects and follow-up review.²⁰

Using non-opioid analgesics or adjunctive medications with an opioid can have an opioid-sparing effect, enabling lower doses of opioids and lower risk of opioid adverse effects.²¹

Don't recommend other medications

Other medications such as muscle relaxants, antidepressants, anticonvulsants and benzodiazepines are generally not recommended ahead of paracetamol or NSAIDs.¹⁴ They either have conflicting, little or no evidence of efficacy and an increased risk of side effects.^{5,13}

The concurrent prescribing of benzodiazepines with opioids may increase the risk of sedation and opioid overdose and should be avoided.²⁰

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Further reading

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