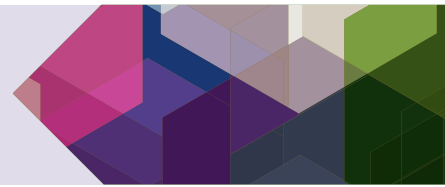


CASE STUDY – KATE



Kate is a 44-year-old retail store manager who presents to her GP with non-specific low back pain (LBP) that began one week ago.



- Kate has a history of LBP. The first episode was during her third pregnancy 5 years ago. She was diagnosed with symphysis pubis dysfunction and sacroiliac joint dysfunction, leading to pain over the sacroiliac joints.
- Subsequent episodes of LBP, diagnosed as recurrent sacroiliac dysfunction, have gone away with pain-relief medication and time.
- Kate says this episode feels different. The pain is more constant and located over the right lumbar spine, buttock and hip.
- Her pain is better upon waking in the morning, gets worse during the day and is aggravated by prolonged sitting and standing.
- She was absent from work last week and has stopped going to the gym.
- Kate has been alternating between naproxen (500 mg) and paracetamol (1000 mg), usually taking them when the pain is most severe. Naproxen has been providing more pain relief than paracetamol.
- On physical examination Kate holds her back stiffly and has back muscle spasm.
- Kate has no neurological deficits, fever or other red flags for radiculopathy, spinal stenosis or serious pathology.
- Kate has no significant medical history, apart from high blood pressure for which she takes a calcium channel blocker. Her blood pressure is well controlled. On examination at this visit it is 128/83 mmHg.

CASE QUESTIONS & ANSWERS – MANAGEMENT

Q. Given Kate’s presentation and diagnosis, what self-management information and advice would you recommend to her?

A. Provide Kate with clear information and advice about the nature of non-specific LBP and encourage her to stay active and continue her normal activities, including at work, as far as possible.^{1,2}

This can include, for example, reassuring her that she doesn’t have serious damage or disease and informing her that improvement and recovery from this episode of pain is more likely when she undertakes normal activities, rather than resting in bed.^{1,3,4}

Let Kate know that going to the gym, in addition to her normal activities,⁵ may help to reduce her pain⁵ if she gradually recommences participation.^{4,6}

In addition, superficial heat, such as a heating pad or blanket, can be recommended⁴ to Kate for pain relief,⁷ with the aim of allowing her to continue normal activities.³

Q. What pain-relief medication would you recommend to Kate at this visit?

A. The aim of pain-relief medications is to enable Kate to stay active and continue with normal activities as far as possible.³

The choice of pain-relief medication for Kate involves finding a balance between the benefits, risks and costs.⁴ Making a choice, however, has become less clear cut in recent years.

Paracetamol is first-line therapy in existing Australian and international guidelines on the management of acute non-specific LBP.^{7,8,9} However, a large Australian study, conducted in 2014 after these guidelines were written, provided new evidence that paracetamol was no more effective than placebo.⁸

When deciding whether Kate should continue taking paracetamol, take into account its low cost, favourable side-effect profile and effectiveness for other acute pain conditions, in addition to the new evidence.⁷

Non-steroidal anti-inflammatory drugs (NSAIDs) are second-line therapy in the guidelines, due to the risk of side effects outweighing the benefits of pain control.^{1,4,9}

However, although the status of NSAIDs has been relatively unchanged since these guidelines were written,⁷ prescribing NSAIDs may be considered more favourably now, because of the evidence for paracetamol's lack of effectiveness.^{5,8}

Deciding whether Kate should continue taking NSAIDs also involves assessment of her risk profile, in particular her high blood pressure and cardiovascular risk. If she does continue, it should be the lowest possible dose for the shortest period of time, with appropriate monitoring of side effects and follow-up review.^{3,10}

Q. Would you consider opioid medications for Kate at this visit?

A. Opioids should not be considered for Kate at this visit. 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.^{1,3,4}

The role of opioids is limited because any pain control benefits are outweighed by the potential risks.⁴

While opioids may be effective for chronic non-specific LBP episodes⁷ there is insufficient evidence for acute episodes.^{5,7} In addition, there are no head-to-head comparison studies for acute non-specific LBP,⁵ but in short term treatment (at least 4 weeks) for chronic non-cancer pain there is no significant difference between opioids and non-opioids for pain reduction.¹¹

The adverse effects of opioids are presented below.

Q. What are the potential adverse effects of pain-relief medications (paracetamol, NSAIDs and opioids) that you should be aware of for Kate?

A. The potential adverse effects of pain-relief medications are:

Paracetamol

Generally considered a safe analgesic for patients like Kate, with a low incidence of adverse effects compared with other drugs and a favourable side-effect profile.^{7,10} Rare adverse effects to be aware of include urticarial or erythematous rashes, fever, or blood dyscrasias. Long-term use of paracetamol alone does not seem to cause analgesic nephropathy.¹⁰

NSAIDs

There is evidence that cardiovascular harm is a general adverse effect of NSAIDs, particularly with high blood pressure. If Kate is going to continue taking NSAIDs, they should be at the lowest possible dose for the shortest period of time. Her cardiovascular risks may also need to be assessed and monitored, especially her blood pressure.^{5,10}

Generally, the adverse effect profiles for all NSAIDs are similar. The main exception is gastrointestinal toxicity; however, all NSAIDs can cause serious ulcers.¹⁰ The other main categories of adverse effects to be aware of for Kate are: neurological, haematological, hepatic, renal and skin rashes.¹⁰

Opioids

The general adverse effect risks for patients like Kate 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.¹²

For back pain specifically, there is evidence of harm. This includes a higher incidence of nausea, dizziness, constipation, vomiting, somnolence and dry mouth with short-term use^{7,13} and increased risk of long-term disability in workers with acute LBP who are prescribed opioids for more than 7 days.¹⁴

Q. Would you recommend non-pharmacological treatments for Kate?

A. There is insufficient evidence to specifically recommend non-pharmacological treatments for acute non-specific LBP to Kate, but they may be considered in addition to self-management and pharmacological treatment.^{2,3,5}

Non-pharmacological treatments include manipulation, mobilisation, massage, electrotherapies, psychological therapies and acupuncture.^{2,3,5}

Q. In what circumstances would you recommend a follow-up visit for Kate?

A. Acute non-specific LBP resolves spontaneously within a few months in the majority of patients.^{3,5} However, up to one-third of patients report persistent pain of at least moderate intensity a year after an acute episode and episodes of back pain often recur. A complex interplay of biological, psychological and social factors undoubtedly influence the development of persistent pain.⁵

While this is Kate's first episode of acute non-specific LBP, she does have a history of recurrent sacroiliac dysfunction.

Consider a follow-up visit for Kate if she exhibits increased risk factors at this visit or if you want to further evaluate her risk factors and the need for a treatment plan to prevent and manage persistent pain, particularly if opioids are being considered.³

A follow-up visit to assess and monitor cardiovascular risk, particularly blood pressure, may also be recommended for Kate if she is going to continue taking NSAIDs.^{5,10}

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Further Reading

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