Opioids no more effective than placebo for acute back and neck pain, finds clinical trial

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Opioid pain-relieving medicines are not more effective than a placebo in relieving acute back and neck pain and may even cause harm, according
to a world-first trial led by the University of Sydney.

The researchers say this is proof that treatment guidelines should be updated to advise against the use of opioids for this purpose.

Over 577 million people worldwide experience low back and neck pain at any one time.

Despite a global push to reduce the use of opioids, in Australia approximately 40% to 70% of those who present with neck and back complaints are prescribed opioids for their pain.

The OPAL trial recruited close to 350 participants from 157 primary care and emergency department sites. Participants with acute-meaning sudden and generally short-term-back or neck pain were randomly allocated to a six-week course of a commonly prescribed opioid or a placebo.

Both groups also received standard care including advice to avoid bed rest and stay active. Participants were followed for 52 weeks.

The results of the trial are published in The Lancet on June 28.

**Study results:**

- At six weeks, those who received opioids did not have better pain relief than those given the placebo.
- Quality of life and pain outcomes at long-term follow-up were better in the placebo group.
- Patients who received opioids were at a small but significantly higher risk of opioid misuse 12-months after their short course of medication.
The research team says that according to current back and neck pain guidelines opioids can be considered as a last resort if all other pharmacological options have failed, however, this study is evidence that opioids should not be recommended at all.

"We have clearly shown there is no benefit to prescribing an opioid for pain management in people with acute back or neck pain, and in fact, it could cause harm in the long-term even with only a short course of treatment," said lead investigator Professor Christine Lin from Sydney Musculoskeletal Health, an initiative of the University of Sydney, Sydney Local Health District and Northern Sydney Local Health District.

"Opioids should not be recommended for acute back and neck pain. Not even when other drug treatments are not able to be prescribed or have not been effective for a patient."

The study complements previous research into opioid use for chronic (long-term) low back pain which found a small treatment benefit, but increased risk of harm.

**Global push to reduce opioid use**

Reducing the overuse of opioids is a global health priority. Medical authorities around the world have cautioned that due to the significant risk of harm to individuals and society, opioids should only be used where there is evidence that the benefits outweigh the harms.

Co-author Professor Chris Maher said in recent years there has been a shift in focus from opioid to non-opioid treatments for low back pain, with a focus on physical and psychological therapies and simple analgesics such as anti-inflammatory medicines (called NSAIDs).
"This study is further evidence that the first line management of acute low back pain and neck pain should rely on reassurance and advice to stay active, and simple analgesics like non-steroidal anti-inflammatory drugs if necessary," said Professor Maher, also of Sydney Musculoskeletal Health.

Harm caused by opioid use

Professor Andrew McLachlan, Dean of Sydney Pharmacy School and co-investigator, said *The Lancet* study is important and should influence prescribing and dispensing of these medicines as Australia faces rising rates of opioid use. According to Australia's Therapeutic Goods Administration, every day in Australia nearly 150 hospitalizations and 14 emergency department admissions involve issues relating to opioid use, and three people die from the harm that results from prescription opioid use.

"The possible harmful effects of opioids are well known. They range from minor harms such as constipation and drowsiness to major harms such as dependence, addiction, overdose, and even unintentional death," said Professor McLachlan.

"The findings from the OPAL trial further reinforce the need to reassess the use of opioid pain-relieving medicines as there is limited evidence of benefit and known significant risk of harm."

The authors note some study limitations including data gaps due to participant attrition and issues with medication adherence consistent with other backpain drug trials. They suggest neither are likely to have impacted the main outcomes of the study.

More information: Opioid analgesia for acute low back pain and neck pain (the OPAL trial): a randomised placebo-controlled trial, *The Lancet*

Provided by University of Sydney


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