

Making strong opioids safer for patients



This factsheet highlights the risks associated with strong opioid use and suggests system changes in primary and secondary care environments.

Background

Opioids can be invaluable for the treatment of severe pain; however they are high-risk medicines. Even with careful use of these medicines, side effects are common. Lethal side effects may occur with even relatively small deficiencies in care.

By paying attention to three principal areas, we can reduce the harm associated with opioids:

1. **Side effects** are expected so monitor the patient regularly and carefully. Minimise the impact of side effects by starting treatment for these effects early, eg, co-prescribing of laxatives and anti-emetics.
2. **Pick the right patients and the right doses.** Opioids have a major but short-term role in the management of severe acute pain, and a longer-term role in the management of cancer pain. Opioids have a lesser role in the management of chronic pain. The right dose in each setting is highly individualised.
3. **Clear instructions** are needed both for health professionals managing opioids and the patients taking these medicines.

Recent reviews of long-term opioid treatment demonstrate that long-term opioid use may be associated with opioid tolerance, overdose, and abuse. Reviews have also defined some risks not traditionally linked to opioids – falls and fractures, myocardial infarction and markers of sexual dysfunction.¹

In 2011, the World Health Organization ranked New Zealand 21st in global levels of consumption of narcotics.² There is growing concern among New Zealand health professionals that misuse of prescription opioids is on the rise. A recent review noted that increased opioid use for back pain and other chronic musculoskeletal pain conditions has been accompanied by increases in prescription opioid addiction and fatal overdose.³

Remember:

- A:** Anti-emetic for the first week
- B:** Breakthrough medication
- C:** laxatives for Constipation.

Reduced doses and increased monitoring is required in **elderly** people and in people with **reduced respiratory, renal, or hepatic function.**

Drug **interactions** can occur with co-administration of respiratory depressants such as **benzodiazepines, alcohol** and **other opioids.**

1 Chou R, Turner J, et al. 2015. The effectiveness and risks of long-term opioid therapy for chronic pain: a systematic review for a national institutes of health pathways to prevention workshop. *Annals of Internal Medicine* 162(4). URL: <http://annals.org/article.aspx?articleid=2089370> (accessed 27 February 2015).

2 International Narcotics Control Board. 2011. *Part four: Statistical information on narcotic drugs. Narcotic drugs: estimated world requirements for 2013.* New York: International Narcotics Control Board.

3 Korff M. 2013. Long-term Use of Opioids for Complex Chronic Pain. *Best Pract Res Clin Rheumatol* 27(5): 663–72.

Medication events involving opioids

Medication events involving opioids have occurred in New Zealand⁴ and overseas^{1,5} due to:

- the availability of opioids in multiple strengths and forms
- sound-alike names, eg, OxyContin® (oxycodone controlled release) and MS Contin® (morphine sulphate controlled release)
- look-alike packaging or confusion about changed packaging
- opioid medicines having a wide range of potencies
- starting with too high a dose, particularly in the opioid naïve patient
- wrong patient errors.

Recent opioid-related medication events in New Zealand involved:

- a prescribing error when a 10 times morphine infusion dose was prescribed for a neonate
- a dispensing error where oxycodone LA 20mg tablets were dispensed in a box labelled oxycodone 5mg (immediate release), and the box labelled oxycodone LA 20mg tablets contained oxycodone 5mg capsules. This near miss error was picked up by a community nurse before the patient started taking the medicine.

When is it appropriate to prescribe opioids?

Information on appropriate prescribing of opioids for different types of pain (excepting palliative care) as well as alternative pharmacological and non-pharmacological methods of pain relief are available outside this factsheet.^{1,6,7,8}

Organisational strategies to reduce incidents involving opioids

- Develop clear and easily accessible guidelines/protocols for opioid treatment. These should include:
 - dose stratification based on risk factors for sedation and respiratory depression
 - clear descriptions of patient monitoring requirements and triggers for escalation in patient care
 - algorithms to troubleshoot and manage side effects
 - opioid conversion charts to guide changes in route of administration and changes from one opioid to another
 - a naloxone protocol.
- Provide in-service education for nurses and doctors on the available range of products and strengths, and the safe prescribing and administration of opioids.
- Promote medication reconciliation at any transitions in care for patients on strong opioids.
- Invest in electronic medication management systems with built-in decision support tools to reduce the chance of errors when prescribing, dispensing and administering strong opioids.

4 Seddon ME, Jackson A, Cameron C, et al. 2013. The adverse drug event collaborative: a joint venture to measure medication-related patient harm. *NZMJ* 126.

5 NHS. 2008. *Reducing dosing errors with opioid medicines*. URL: <http://www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59888&p=3> (accessed 27 February 2015).

6 BPAC. 2012. Update on oxycodone: what can primary care do about the problem? *Best Practice Journal NZ* 44.

7 BPAC. 2014. Helping patients cope with chronic non-malignant pain: it's not about opioids. *Best Practice Journal NZ* 63.

8 Gourlay DL, Heit HA, Almahrezi A. 2005. Universal precautions in pain medicine; a rational approach to the treatment of chronic pain. *Pain Med* 6:107–12.

Key messages

Health care workers with patients on strong opioids:

- The right dose is always a balance between achieving adequate pain relief and avoiding significant side effects. Regularly assess for effectiveness and the potential for harm.
- Ask if you have some uncertainty about the safety of a prescription, keeping in mind that opioid overdose is more dangerous than opioid withdrawal.
- Patients must know they are on a strong opioid and why – wrong patient incidents have resulted in tragic cases of harm.
- Remember morphine, oxycodone, fentanyl and methadone are all strong opioids, and all share a similar harm and side effect profile.
- For patients going home on opioids or for patients being treated in the community, provide a clear written analgesic plan. This plan should include;
 - the names of their opioid and non-opioid analgesics
 - a description of when to take the medicines
 - the expected duration of therapy
 - common side effects to look out for
 - when needed, a tapering dose schedule for the opioids.
- Make drug diversion more difficult by;
 - keeping opioids and opioid prescription pads secure
 - maintaining accurate controlled drugs registers
 - giving advice about how to dispose of any remaining opioid medication once the pain has settled.

Pharmacists:

- Ensure opioid products with look-alike names or packaging stored in the pharmacy controlled drug safe are separated to lessen the chance of a pick error.
- Prioritise patients taking opioids for medication chart review, medication reconciliation and education about their medication.
- Ensure nurse managers/educators manage ward controlled drug safe carefully:
 - Remove items that can be safely stored elsewhere.
 - Separate opioid products with look-alike names or packaging to lessen the chance of a pick error.
 - Review the range of medicines, strengths and formulations that are routinely stocked in clinical areas. Try to simplify this range.

Nurses:

- Inform your patients and their family/whānau about pain control and possible side effects.
- Does the dose seem right? As a general rule older people should be on smaller doses.
- Help patients find the right balance between pain control and side effects: monitor for both and actively manage both.
- Sedation scores^{9,10,11,12} are a more reliable method of detecting early opioid respiratory depression than respiratory rate. Attempting to rouse a sleeping patient can identify an over-sedated patient at risk of respiratory depression.
- Ensure opioid products with look-alike names or packaging are stored separately to lessen the chance of a pick error.
- Manage ward controlled drug safes carefully to minimise the range of medicines, strengths and formulations stocked.

Prescribers:

- Always prescribe a quantity of medication that matches the expected duration of therapy.
- Always consider the context when prescribing strong opioids:
 - inter-individual dose variation is large
 - in the acute pain setting, slow release preparations have only a minor role
 - neuropathic pain and chronic pain are not reliably opioid responsive.
- Use both the generic and trade names when prescribing opioids with look-alike, sound-alike names.
- Before prescribing strong opioids consider prior *addictive or risk-taking behaviour* and use a recognised risk assessment tool.^{13,14,15,16,17}
- Before adding in strong opioids, optimise the use of non-opioid analgesics.
- Use the lowest effective dose of opioid and only continue it for as long as necessary.

9 Jarzyna D, Jungquist CR, Pasero C, et al. 2011. American Society for Pain Management nursing guidelines on monitoring for opioid-induced sedation and respiratory depression. *Pain Management Nursing* 12(3): 118–45.

10 Pasero C. 2013. The Perianaesthesia Nurse's Role in the Prevention of Opioid-related Sentinel Events. *Journal of Perianaesthesia Nursing* 28(1): 31–7.

11 Nisbet AT, Mooney-Cotter F. 2009. Comparison of selected sedation scales for reporting opioid-induced sedation assessment. *Pain Management Nursing* 10(3): 154–64.

12 Pasero C. 2012. Opioid-induced sedation and respiratory depression: evidence-based monitoring guidelines. *J Peri-anaesthesia Nursing* 27(3): 208–11.

13 Jones T, Moore TM, Levy J, et al. 2012. A comparison of various risk screening methods for patients receiving opioids for chronic pain management. *Clin J Pain* 28(2): 93–100.

14 Jones T, Lookatch S, Grant P, et al. 2014. Further validation of an opioid risk assessment tool the brief risk interview. *J Opioid Management* 10(5): 353–64.

15 Chou R, Fanciullo GJ, Fine PG, et al. 2009. Opioids for chronic non-cancer pain: prediction and identification of aberrant drug-related behaviours: a review of the evidence for an American Pain Society and American Academy of Pain Medicine Clinical Practical Guideline. *J of Pain* 10(2): 131–46.

16 PainCAS Clinical Assessment System. A web-based clinical tool for assessing pain and opioid risk in chronic pain patients. URL: <https://www.paincas.com/Welcome/Welcome> (accessed 13 May 2015).

17 PainEDU. The Screener and Opioid Assessment for Patients in Pain (SOAPP®) and SOAPP2. URL: <https://www.painedu.org/soapp.asp> (accessed 13 May 2015).