



OPIOIDS FOR OLDER PERSONS

Chronic pain is highly prevalent among older persons in residential aged care and may significantly reduce their quality of life, as well as reduce independence and mobility, contribute to declining cognitive function and increase disability.

Pain is 'an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage'.

Pain can be characterised as nociceptive, neuropathic or nociplastic. Nociceptive pain may be superficial and described as hot, sharp, or stinging, or deep and described as dull, aching, throbbing, cramping, pressure, and tightness.

Neuropathic pain involves injury or disease of the peripheral or central nervous system. It is described in terms of an altered sensation with pins and needles, tingling, burning, stinging, lancinating, shooting, and radiating pain. Central sensitisation is the key contributor to nociplastic pain which may be like nociceptive and neuropathic descriptors.

Chronic pain

Chronic pain is defined as pain for more than three months or persisting after healing is expected to be complete. Chronic pain may be classified as cancer or non-cancer pain. Functional improvement rather than a reduced pain score is the aim of management of chronic non-cancer pain. The goals of management of chronic pain are to:

- provide symptom relief,
- maintain or restore function, and
- improve quality of life.

Evidence suggests that medicines are overused to treat chronic pain, and guidelines recommend medicines only as an adjunct to non-pharmacological options. A multimodal approach is best, combining education, personal and group therapy, mind-body therapies, cognitive behavioural therapy, physical and occupational therapy, and biofeedback.

Opioids

Opioid analgesics play an important role in providing acute and chronic pain relief for many people. They reduce the perception of pain and produce a sense of well-being. Opioids may be effective in reducing pain but should be expected to reduce pain completely.

Opioid analgesics include:

- Buprenorphine
- Codeine
- Fentanyl
- Hydromorphone
- Methadone
- Morphine
- Oxycodone
- Remifentanyl
- Tapentadol
- Tramadol

Oxycodone is the most commonly dispensed prescription opioid. Modified-release opioids are not indicated to treat chronic non-cancer pain or to be used for 'as-needed' pain relief. Hydromorphone and fentanyl modified-release products should also not be used in opioid naïve patients.

For people with cancer pain or in palliative care and end-of-life care, the benefits of opioids generally outweigh the risks. However, opioids have a limited role in the management of chronic non-cancer pain. Opioids should only be used when other analgesics are not suitable or have proven not to be effective. Clinical experience suggests opioids are only effective in one in three patients with chronic pain for reducing pain intensity by 30% to 50%. This comes with a high burden of adverse effects (80%). These adverse effects include (but are not limited to):

- Nausea, vomiting, constipation
- Depression
- Euphoria and sedation
- Drowsiness, changes in cognition, confusion
- Immune and endocrine dysfunction
- Sexual dysfunction
- Increased risk of falls
- Low blood pressure
- Kidney and liver failure
- Respiratory depression
- Tolerance, dependence
- Opioid-induced hyperalgesia

continued over

Stimulant laxatives should be co-prescribed for residents on opioids to reduce the risk of opioid-induced constipation.

Concomitant use of benzodiazepines, gabapentin or pregabalin with opioids increase the risk of central nervous system effects and respiratory depression.

The oral morphine equivalent (OME) is a measure of opioid use that adjusts for the difference in potency between different opioids. It converts the amount of each opioid dispensed to the amount of oral morphine that would be required to produce the same pain-relieving effect. For residents prescribed multiple regular and as-needed opioids, on-line and app calculators are available to determine the total opioid dose being taken.

Opioid use in older persons

Opioid dose requirement decreases progressively with age. There is an increased risk of adverse effects including cognitive impairment, sedation, respiratory depression and falls. Older people experience the highest rates of hospitalisations involving side effects of opioid use. In 2016, opioid deaths accounted for 62% of all drug-induced deaths.

A lower initial dose (25–50% of usual adult dose) is recommended for older people and then titrated to effect. Residents should be monitored regularly for adverse effects and drug-drug interactions.

Physiological changes associated with aging add to the complexity of opioid therapy for older adults. Reduced renal and liver function among older persons may lead to opioid drug accumulation and generally requires lower dosing. Morphine should be avoided in those with significant renal impairment. Hydromorphone and oxycodone are preferable but used in a reduced dose. Fentanyl is considered safe in renal failure. Most opioids are metabolised by the liver, so the risk of adverse effects is higher. Reduced dosing is also recommended.

As many older persons are taking multiple medications to treat multiple conditions, drug interactions need to be considered. Morphine and methadone have multiple drug interactions. Oxycodone and hydromorphone are less likely to cause drug-drug interactions.

Codeine should be used with extreme caution as 20% of the population lacks the ability to convert to its active ingredient morphine. Tramadol should be avoided in persons taking other serotonergic medicines and in those with declining hepatic and renal function. Tramadol can also contribute to hypoglycaemia, hyponatraemia, seizures, increased hip fractures and increased mortality.

Tolerance

Opioid analgesia attenuates with time, while the harms persist or accrue as doses increase. For some patients, the primary benefit of opioids becomes the avoidance of withdrawal. This constitutes harm but is easily misconstrued as ongoing effectiveness.

Hyperalgesia is an increased sensitivity to both painful and nonpainful stimuli. Pain may increase as dosing is increased. Opioid-induced hyperalgesia may explain loss of opioid efficacy in some patients.

Dependence

Physical dependence to long-term use of opioids is common. Withdrawal symptoms such as nausea, vomiting, diarrhoea, sweating and anxiety occur if chronic treatment is stopped suddenly.

Psychological dependence defined as a compulsion to use the drug, and addiction, the compulsive use to the detriment of physical and/or psychological and/or social function, can occur even in patients without a history of substance misuse.

Recent evidence suggests that tapering opioids improves pain, function and quality of life.

Regulatory changes

To minimise the harm caused by opioid prescription medicines to Australians each year, a number of regulatory changes are being implemented. The changes will ensure the safe and effective prescribing and use of opioids while maintaining access for patients who need them. Smaller pack sizes will be available for immediate-release prescription opioid products. Modified release products should only be used as daily, continuous, long-term treatment when other analgesics are not suitable or have proven not to be effective.

Further information

<https://www.nps.org.au/professionals/opioids-chronic-pain>
<https://www.painaustralia.org.au/>

References

Pain 2020;161(9):1976-82.
 Australian Institute of Health and Welfare 2018.
 CMAJ 2017;189:E1222-3.
 Mayo Clin Proc. 2020;95(4):793-800.
 Therapeutic Guidelines Ltd (eTG December 2020 edition)
 Australian Medicines Handbook, January 2021.

The Webstercare Consultant Pharmacist Continuing Education Service come to you each month from your pharmacist. If you would like extra copies please visit www.webstercare.com.au or ask your pharmacist.