

## Opioid Pain Medications Fact Sheet

### Group 4 pain medications - Opioid

Opioid means the medication has an action 'like opium'. Opium comes from the Poppy plant and is discussed separately, as there are serious health concerns (including the risk of death) associated with long term use<sup>1</sup>. Opioids may be prescribed for nerve-like pain but current evidence supports only a weak recommendation for use as a third line treatment<sup>2</sup>.

Effectiveness of opioid pain medications:

- Only about 1 in 5 patients obtain effective pain relief with opioid pain medications, without major side effects
- A 'successful' response includes not only a decrease in pain severity, but more importantly, an improvement in physical function (such as walking, exercise, work)
- Your body may also become used to (tolerant) to pain medications, meaning you continually need a larger dose to get the same pain relief. This leads to a vicious cycle; the higher the dose, the more side effects develop and the worse the pain becomes
- Opioids use is associated with lower sex hormone levels, which could increase the chance of osteoporosis
- Opioids also seem to alter the immune system in an unhelpful way
- Not all patients respond to opioid pain medications, despite them being very potent, and these medications can actually increase pain in some cases!
- The human body is not designed to have high levels of morphine-based (opioid) pain medications floating around in the blood stream. When the body detects high levels of opioids in the bloodstream, it produces chemicals that actually increase the pain signal, to counteract these medications. This increases in pain sensitivity and is called opioid-induced hyperalgesia<sup>1</sup>.

The way to deal with tolerance or opioid-induced hyperalgesia, is a gentle slow reduction in your pain medication. This approach helps to reset the chemical balance of your brain and reduce your pain.

## Types of opioids

### **Buprenorphine patches** (Norspan™)

Norspan patches come in 5mg, 10 mg, and 20 mg. Neuropathic pain can contribute to spinal pain. If a strong opioid is considered for neuropathic pain, then buprenorphine (S8) could be considered the least harmful effective option.

Norspan is the only strong opioid not associated with rapid tolerance, opioid-induced hyperalgesia, a lowering of the sex hormones, or a negative impact on the immune system.

- o Western Australia Department of Health approval is required for authority scripts (4 patches with 2 repeats if approval sought), otherwise 2 patches per script which means the script only lasts 2 weeks
- o Theoretical advantages are a reduced chance of tolerance (that is 'your body gets used to it' and dose increases are less likely); there may be a reduced chance of opioid induced hyperalgesia<sup>3</sup>
- o Usually start with 5mg, put on one patch and leave on for a week [unless there are side-effects, in which case, remove], then remove and apply second patch for the next week
- o You can increase to 10mg per week, and then 20mg per week, if needed
- o If a rash develops under the patch then pre-treatment with Diprosone cream 0.5mg/g (15gm and 50gm tubes) 30 minutes prior to application.

### **Oxycontin™**

CR is a Slow Release (12 hourly) Oxycodone tablet. Oxynorm (Endone) is short acting

### **Targin™**

Is a combination of Oxycontin and naloxone, and reduces opioid induced constipation

- o MS Contin™ and Kapanol™ are Slow Release (12 hourly) morphine tablets
- Morphine elixir is a short acting form.

### **Fentanyl patches**

Have an effect for 3 days:

- Rapid tolerance is an issue
- Available in 12.5 and 25 mcg per hour.
- The higher dose 50 and 100 mcg per hour are for cancer pain only as they are equal to 150 and 300-400mg of morphine per day respectively
- Journista™ (Hydromorphone Slow Release) is a once daily form.
- Dilaudid™ is a short acting form

### **Methadone™**

Is a slow acting tablet taken once or twice per day. Not recommended to be started if you are not in a hospital and needs to be started with caution

### Tapentadol (Palexia™)

Was registered on the Pharmaceutical Benefits Scheme in Australia in 2014.

- It is a 12 hourly extended release tablet.
- Tapentadol works on the opioid receptor and noradrenaline receptor<sup>4</sup> and has less side-effects for a similar amount of pain relief compared to the other opioid medications discussed below.
- Tapentadol also has a lower community death rate than other opioid medications<sup>1</sup>.
- Taken together, the benefit-risk ratio of tapentadol appears to be improved compared to third line opioids<sup>5</sup>

### References

1. Roxburgh A, Hall WD, Burns L, et al. Trends and characteristics of accidental and intentional codeine overdose deaths in Australia. *The Medical journal of Australia* 2015; **203**(7): 299.
2. Finnerup NB, Attal N, Haroutounian S, et al. Pharmacotherapy for neuropathic pain in adults: a systematic review and meta-analysis. *Lancet neurology* 2015; **14**(2): 162-73.
3. Wolff RF, Aune D, Truyers C, et al. Systematic review of efficacy and safety of buprenorphine versus fentanyl or morphine in patients with chronic moderate to severe pain. *Current medical research and opinion* 2012; **28**(5): 833-45.
4. Schug SA, Goddard C. Recent advances in the pharmacological management of acute and chronic pain. *Ann Palliat Med* 2014; **3**(4): 263-75.
5. Riemsma R, Forbes C, Harker J, et al. Systematic review of tapentadol in chronic severe pain. *Current medical research and opinion* 2011; **27**(10): 1907-30.