Waitemata District Health Board
Best Care for Everyone

Safe use of oxycodone for secondary care

- **Oxycodone is appropriate for moderate-to-severe acute pain**
- **Do not prescribe oxycodone if a weaker opioid would be more appropriate**
- **Oral oxycodone is twice as potent as oral morphine**
- **Please dose carefully; oral oxycodone 5mg = oral morphine 10mg (in opioid naïve patients)**
    - **Oxycodone capsule (Oxynorm®) = short acting;**
    - **Oxycodone tablet (Oxydone® or Oxycontin®) = controlled release**
- **Oxycodone has a similar side-effect profile to morphine**
- **Inform the patient and GP about the expected duration of treatment (for non-cancer pain)**

Oxycodone is appropriate for moderate-to-severe acute pain

Oxycodone, like morphine, is an analgesic for moderate-to-severe acute pain. Oxycodone is usually preferred as an alternative to morphine if patients have moderate renal impairment.

Note: Oxycodone is no better or worse than morphine as an analgesic.

Do not prescribe oxycodone if a weaker opioid would be more appropriate

There is a wide variation in individual response to opioids.

Multimodal analgesia using simple non-opioid analgesics improves pain relief, reduces required opioid doses and opioid-related side-effects. Use the WHO analgesic ladder when initiating pain relief:

Step 1	Paracetamol and/or NSAID (non-steroidal anti-inflammatory drug)
Step 2	**Add** weak opioid eg tramadol
Step 3	**Change** from weak to strong opioid eg from tramadol to morphine *or* oxycodone

Regular paracetamol reduces opioid consumption (ie it has an opioid sparing effect) in the post-operative setting.

Note: Strong opioids are usually not first-line treatments for chronic non-cancer pain.
Some patients with chronic or neuropathic pain benefit from adjuvant treatments such as tricyclic anti-depressants or gabapentin.

Oral oxycodone is twice as potent as oral morphine
Oral oxycodone 5mg = oral morphine 10mg (in opioid naïve patients*)

The initial dose for opioid naïve patients is **oxycodone controlled release tablets 5mg twice daily**.

Titrate to effect by calculating doses of oxycodone **short-acting** capsules that have been given for breakthrough pain.

Note: Oral oxycodone is twice as potent as oral morphine (milligram for milligram). Below is a general guide with dosing ratios for opioid naïve patients.

*If patients are already taking opioids, conversion ratios should be more conservative

Medication	Ratio	Example
Oral morphine : oral oxycodone	**2:1**	10mg morphine = 5mg oxycodone
Oral tramadol : oral oxycodone	**20:1**	100mg tramadol = 5mg oxycodone
Oral oxycodone : subcut oxycodone	**2:1**	20mg oral oxycodone = 10mg subcut oxycodone
Oral oxycodone : IV oxycodone	**2:1**	10mg oral oxycodone = 5mg IV oxycodone
IV morphine : IV oxycodone	**1:1**	1mg IV morphine = 1mg IV oxycodone

Case example: A patient was admitted for a knee joint replacement. They had been taking a total of 80mg morphine (ie 40mg oxycodone equivalent) per day at home. For postoperative pain relief, their opioid dose was titrated rapidly to oxycodone controlled release tablets 80mg twice daily. The patient became narcosed.

Commentary: Oxycodone is a potent opioid analgesic and doses should be calculated and titrated cautiously. If oral analgesics are not working, consider an alternative route or alternative medication.

Oxycodone capsule (Oxynorm®) = short acting
Oxycodone tablet (Oxydone® or Oxycontin®) = controlled release

Oxycodone is available as short-acting and controlled release formulations.
Always prescribe as '**oxycodone**' and specify which formulation, '**short-acting**' OR '**controlled release**'.

Oxycodone formulation	Onset of action[1]	Duration[1]	Dosing frequency
Oxycodone **short-acting** capsules or liquid	15-30mins	3-4hours	Hourly initially, then 2-4hourly[2]
Oxycodone **controlled release** tablets	30mins	12hours	12hourly[3,4]
Oxycodone injection (intravenous)	2-5mins	2-4hours	5-10min initially[2], then 4hourly[5]
Oxycodone injection (subcutaneous)	15-20mins	2-4hours	30min initially, then 1-2hourly[2]

Note: Oxycodone controlled release has a similar *onset* of action to the short-acting form. Wait 1 hour after giving oxycodone controlled release to assess pain before giving additional short-acting oxycodone.

Case example: An opioid naïve patient was prescribed oxycodone **controlled release** tablets 5mg *hourly* as required
Commentary: Oxycodone **controlled release** should not be given as required for breakthrough pain; it is active for 12hours. Oxycodone short-acting is more appropriate for breakthrough pain.

Oxycodone has a similar side-effect profile to morphine

Inform the patient about the possibility of constipation, urinary retention, nausea and vomiting, and sedation (particularly upon initiation). Other possible side effects include dyspepsia, dry mouth, abdominal pain, chills, dizziness, headache, insomnia, anxiety, confusion, and dyspnoea. Respiratory depression can occur with excessive dosing.

Use the **ABC** of opioid pain medication[2]

Anti-emetic if nausea present
Breakthrough pain relief may be required
Constipation is inevitable – **always** co-prescribe a laxative

- **Use oxycodone with caution** if patients have chronic pulmonary, renal or hepatic disease.
- **Oxycodone is contraindicated** if patients have severe renal impairment (CrCl <10mL/min)[3] or acute respiratory depression. Consult with a pain physician or palliative care specialist in these situations.
- **Older patients** should be started on lower doses titrated carefully according to their response.
- Patients with a history of **alcohol, drug or medicines abuse** require specialist advice.
  Consult with a pain physician, palliative care specialist or CADS (community alcohol and drug service).
- Prescribing oxycodone with other medicines that cause constipation, such as anticholinergics, will increase the risk of constipation; always remember to co-prescribe laxatives.

Inform the patient and GP about the expected duration of treatment (for non-cancer pain)

In New Zealand 70% of oxycodone prescriptions start in secondary care; 17% of these continue into primary care.[6]
If a patient is discharged with oxycodone, inform them and their GP about the expected duration of treatment, and when to step-down to a weaker analgesic.[1] For patients with non-cancer pain, prescribe oxycodone for the shortest duration possible (eg 3 days supply), **and encourage them to follow-up with their GP.**[7]
Use oxycodone with Step 1 analgesics, such as regular paracetamol, to reduce the requirement for stronger analgesics.

Ensure the patient knows that oxycodone is a **strong opioid,** similar to morphine. Remind them to keep all medicines out of reach, and out of sight of children. Unused medicines should be returned to their pharmacy for safe disposal.

References

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Important: *This is a general guide provided to assist clinical staff with the use of oxycodone. Users of this guide must always consider current best practice and use their clinical judgement with each patient. This guide is not a substitute for individual clinical decision making.*

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