



# Palliative Care: Opioid Conversion Guide

These conversion factors are approximations; there is wide and unpredictable inter-individual variability of oral opioids. Patients should be reviewed 24h after conversion from one opioid to another or from one route to another, and doses adjusted according to patient requirement. **Refer to your local hospice for advice if necessary.**

Converting		Ratio	Example	
from	to			
codeine oral	morphine oral	10:1	codeine 60mg	→ morphine 6mg <sup>1</sup>
tramadol oral	morphine oral	10:1	tramadol 100mg	→ morphine 10mg <sup>2</sup>
dihydrocodeine oral	morphine oral	10:1	dihydrocodeine 100mg	→ morphine 10mg
oxycodone oral	morphine oral	1:1.5	oxycodone 10mg	→ morphine 15mg <sup>3</sup>
morphine oral	oxycodone oral	2:1	morphine 20mg	→ oxycodone 10mg <sup>4</sup>
morphine oral	morphine subcut	2 to 3:1	morphine 30mg	→ morphine 10-15mg subcut <sup>5</sup>
oxycodone oral	oxycodone subcut	2:1	oxycodone 20mg	→ oxycodone 10mg subcut <sup>6</sup>
oxycodone subcut	morphine subcut	1:1	oxycodone 10mg subcut	→ morphine 10mg subcut
morphine subcut	fentanyl subcut	100:1	morphine 1mg subcut	→ fentanyl 0.01mg (10microgram) subcut

1. If converting from the maximum daily dose of codeine (240mg/24h; equivalent 30mg oral morphine/24h) the patient could be initiated on 5mg short acting oral morphine PRN 4 hourly (ie a maximum of 30mg oral morphine/24h as per the 'Morphine initiation and titration guide')
2. If converting from the maximum tramadol daily dose (400mg/24h; equivalent 40mg oral morphine/24h) consider starting at a lower morphine dose eg 5mg short acting morphine PRN every 4h as per the 'Morphine initiation and titration guide' and up-titrating dose as required. In pain associated with cancer, morphine *may* be more effective than tramadol.
3. **When converting from oral oxycodone to oral morphine, a conservative ratio of 1:1.5 should be used.** This reduces risk of overdose which may arise due to the wide inter-individual variability in systemic bioavailability of oral morphine.
4. **When converting from oral morphine to oral oxycodone, a conservative conversion ratio of 2:1 should be used.**
5. If converting to a CSCI (continuous subcutaneous infusion) divide the 24h oral dose of long acting morphine (m-Eslon<sup>®</sup> or LA Morph<sup>®</sup>) by 2 (or 3). The equianalgesic ratio is somewhere between 2:1 and 3:1. Dividing the oral dose by 2 may result in a slight increase in analgesic effect; dividing by 3 may result in a slight reduction in analgesia, which may be appropriate in some cases. (eg if you are concerned about oral absorption or patient adherence)
6. If a patient requires a CSCI, divide the 24h oral dose of long-acting oxycodone (oxycodone controlled release) by 2 and review after 24h. Whilst this is a conservative conversion based on the manufacturer's recommendations (the true conversion ratio may be closer to 4:3) it represents a safe starting point.

**Transdermal fentanyl patches** should not be initiated in patients with unstable pain. Strengths of >12.5microgram/h should not be initiated in opioid naïve patients. The lowest patch strength delivers 12.5microgram of fentanyl per hour (equivalent 1.25mg morphine) which equates to 30mg morphine in 24h. It may be 8-12h (or longer) after putting on the first patch before pain relief is experienced. If the patch is stopped it may take 12h or longer before the effect of the fentanyl wears off.

**Metadone** has advantages in patients with renal impairment. It has a long half-life and complex pharmacokinetics, with a high risk for accumulation and resultant narcosis. Dose conversions are complex; seek advice from a palliative care or pain specialist.

**Monitor all patients taking opioids for excessive drowsiness, constipation, urinary retention, nausea and vomiting**

**Important:** The information contained herein is intended solely to assist clinicians with the management of palliative care patients. It is not intended to replace the consultation process of clinicians with their patients. Clinicians must consider current best practice when making clinical decisions with each individual patient at all times.

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Waitemata DHB medicine protocols are available on: [www.waitematadhb.govt.nz/HealthProfessionals/PalliativeCareGuidelines.aspx](http://www.waitematadhb.govt.nz/HealthProfessionals/PalliativeCareGuidelines.aspx)