Our Lady's Hospice & Care Services
Respite Rehabilitation Reassurance
Harold's Cross & Blackrock

# Opioid Conversion Chart

**There are differences in the literature regarding opioid conversion ratios. The conversion ratios listed below are the conversion ratios commonly used in practice at Our Lady's Hospice and Care Services (OLH&CS). The information outlined below is intended as a guide only. ALL OPIOID CONVERSIONS OUTLINED BELOW ARE APPROXIMATE ONLY. Therefore, all medication doses derived using the information below should be checked and prescribed by an experienced practitioner. The dosage of a new opioid is based on several factors including the available equi-analgesic dose data, the clinical condition of the patient, concurrent medications and patient safety. It is recommended that the new dose should be reduced by 30-50% to allow for incomplete cross-tolerance. The patient should be monitored closely until stable when switching opioid medications. Prescribers should be mindful of available opioid formulations and their strengths when prescribing, and should ensure that doses prescribed equate to a volume which is measurable.**

## GOLDEN RULE: WHEN CHANGING FROM ONE OPIOID TO ANOTHER ALWAYS CONVERT TO MORPHINE FIRST.

| ORAL MORPHINE TO ORAL OPIOIDS | | ORAL OPIOIDS TO PARENTERAL OPIOIDS | | PARENTERAL MORPHINE TO OTHER OPIOIDS | | TRANSDERMAL OPIOID TO ORAL MORPHINE | |
|---|---|---|---|---|---|---|---|
| PO → PO | RATIO | PO → IV/SC | RATIO | IV/SC → IV/SC | RATIO | TD → PO | RATIO |
| Morphine → Oxycodone | 1.5:1 | Morphine → Morphine | 2:1 | Morphine → Oxycodone | 1.5:1[α] | Buprenorphine → Morphine | 1:100 |
| Morphine → Hydromorphone | 5:1 | Oxycodone → Oxycodone | 2:1 | Morphine → Hydromorphone | 5:1 | Fentanyl → Morphine | 1:100 |
| | | Hydromorphone → Hydromorphone | 2:1 | Morphine → Alfentanil | 15:1 | | |
| | | | | Morphine → Fentanyl | 50:1 | | |

(Note: This table does not incorporate recommended dose reductions of 30-50%.)

| MORPHINE 24 hour dose | | OXYCODONE[α] 24 hour dose A 2:1 ratio with morphine may also be used. See preparations outlined below. | | HYDROMORPHONE 24 hour dose | | FENTANYL | | ALFENTANIL[β] 24 hour dose | BUPRENORPHINE |
|---|---|---|---|---|---|---|---|---|---|
| ORAL | IV/SC | ORAL | IV/SC | ORAL | IV/SC | TRANSDERMAL[#] | IV/SC[γ] (24 hour dose) | IV/SC | TRANSDERMAL[#] |
| 5mg | 2.5mg | 3.33mg | 1.66mg | 1mg | 0.5mg | - | - | - | - |
| 12mg | 6mg | 8mg | 4mg | 2.4mg | 1.2mg | - | 120micrograms | 0.4mg | 5 micrograms/hour |
| 14.4mg | 7.2mg | 9.6mg | 4.8mg | 2.88mg | 1.44mg | 6 micrograms/h | 144micrograms | 0.48mg | - |
| 24mg | 12mg | 16mg | 8mg | 4.8mg | 2.4mg | - | 240micrograms | 0.8mg | 10 micrograms/hour |
| 28.8mg | 14.4mg | 19.2mg | 9.6mg | 5.76mg | 2.88mg | 12 micrograms/h | 288micrograms | 0.96mg | - |
| 36mg | 18mg | 24mg | 12mg | 7.2mg | 3.6mg | - | 360micrograms | 1.2mg | 15 micrograms/hour |
| 50mg | 25mg | 33.33mg | 16.66mg | 10mg | 5mg | - | 500micrograms | 1.67mg | 20 micrograms/hour |
| 60mg | 30mg | 40mg | 20mg | 12mg | 6mg | 25 micrograms/h | 600micrograms | 2mg | 25 micrograms/hour |
| 100mg | 50mg | 66.67mg | 33.33mg | 20mg | 10mg | - | 1mg | 3.33mg | - |
| 120mg | 60mg | 80mg | 40mg | 24mg | 12mg | 50 micrograms/h | 1.2mg | 4mg | 52.5 micrograms/hour |
| 160mg | 80mg | 106.67mg | 53.33mg | 32mg | 16mg | - | 1.6mg | 5.33mg | 70 micrograms/ hour* |
| 180mg | 90mg | 120mg | 60mg | 36mg | 18mg | 75 micrograms/h | 1.8mg | 6mg | |
| 240mg | 120mg | 160mg | 80mg | 48mg | 24mg | 100 micrograms/h | 2.4mg | 8mg | - |

[α] National and international guidelines also support the use of a 2:1 ratio when switching between morphine and oxycodone.
Oxycodone is available as immediate release capsules 5mg, 10mg and 20mg, liquid 1mg/ml or 10mg/ml and sustained release tablets 5mg, 10mg, 20mg, 40mg and 80mg. Oxycodone solution for injection is available in 10mg/ml and 50mg/ml strengths.
[β] See 'The Use of Alfentanil in a Syringe Driver in Palliative Medicine' document available from the Palliative Meds Info webpages http://www.olh.ie/7-departments/166-palliative-meds-info/. Doses have been rounded to the nearest whole number or the nearest appropriate decimal point.
# Transdermal fentanyl and buprenorphine patches are prescribed in micrograms/hour. Equivalent doses are based on the 24 hour dose of fentanyl or buprenorphine received from a patch. See product literature for further information.
γ IV/SC fentantyl is included in this table to assist with opioid rotation from fentanyl where patients are admitted to OLHCS on IV/SC fentanyl. IIV/SC fentanyl is not routinely used in OLHCS.

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