

## Opioid Conversion Chart

| Morphine 4hrly (o) | Morphine MR BD (o) | Total 24h Morphine (o)<br>(adding 4hrly doses) | Oxycodone 4hrly (o) | Oxycodone MR BD (o) | Oxycodone 4hrly (sc) | Total 24h (sc) Oxycodone | Diamorphine 4hrly (sc) | Total 24 h (sc) Diamorphine | Fentanyl patch 72hrly |
|--------------------|--------------------|--|---------------------|---------------------|----------------------|--------------------------|------------------------|-----------------------------|-----------------------|
| 5mg                | 20mg <sup>1</sup>  | 30mg   | 2.5mg               | 10mg                |                      | 15mg                     | 1.25-2.5mg             | 10mg                        | 25mcg                 |
| 10mg               | 30mg               | 60mg   | 5mg                 | 20mg                | 5mg                  | 30mg                     | 2.5-5mg                | 20mg                        | 25mcg                 |
| 15mg               | 50mg <sup>1</sup>  | 90mg   | 10mg                | 30mg                | 7.5mg                | 45mg                     | 5mg                    | 30mg                        | 25mcg                 |
| 20mg               | 60mg               | 120mg  | 12.5mg              | 40mg                | 10mg                 | 60mg                     | 5-7.5mg                | 40mg                        | 25-50mcg              |
| 30mg               | 90mg               | 180mg  | 20mg                | 60mg                | 15mg                 | 90mg                     | 10mg                   | 60mg                        | 50mcg                 |
| 40mg               | 120mg              | 240mg  | 25mg                | 80mg                | 20mg                 | 120mg                    | 15mg                   | 80mg                        | 50-75mcg              |
| 50mg               | 150mg              | 300mg  | 35mg                | 100mg               | 25mg                 | 150mg                    | 15-20mg                | 100mg                       | 75mcg                 |
| 60mg               | 180mg              | 360mg  | 40mg                | 120mg               | 30mg                 | 180mg                    | 20mg                   | 120mg                       | 100mcg                |
| 70mg               | 200mg <sup>2</sup> | 420mg  | 45mg                | 130mg               | 35mg                 | 210mg                    | 20-25mg                | 140mg                       | 125mcg                |
| 80mg               | 240mg              | 480mg  | 50mg                | 160mg               | 40mg                 | 240mg                    | 25mg                   | 160mg                       | 125-150mcg            |
| 90mg               | 260mg <sup>2</sup> | 540mg  | 60mg                | 170mg               | 45mg                 | 270mg                    | 30mg                   | 180mg                       | 150mcg                |
| 100mg              | 300mg              | 600mg  | 65mg                | 200mg               | 50mg                 | 300mg                    | 30-35mg                | 200mg                       | 150-175mcg            |
| 110mg              | 330mg              | 660mg  | 70mg                | 220mg               | 55mg                 | 330mg                    | 35mg                   | 220mg                       | 175mcg                |
| 120mg              | 360mg              | 720mg  | 80mg                | 240mg               | 60mg                 | 360mg                    | 40mg                   | 240mg                       | 200mcg                |
| 140mg              | 420mg              | 840mg  | 90mg                | 280mg               | 70mg                 | 420mg                    | 45mg                   | 280mg                       | 225-250mcg            |
| 160mg              | 480mg              | 960mg  | 105mg               | 320mg               | 80mg                 | 480mg                    | 55mg                   | 320mg                       | 275mcg                |
| 180mg              | 540mg              | 1080mg   | 120mg               | 360mg               | 90mg                 | 540mg                    | 60mg                   | 360mg                       | 300mcg                |
| 200mg              | 600mg              | 1200mg   | 130mg               | 400mg               | 100mg                | 600mg                    | 70mg                   | 400mg                       | 350mcg                |
| 300mg              | 900mg              | 1800mg   | 200mg               | 600mg               | 150mg                | 900mg                    | 100mg                  | 600mg                       | 500mcg                |

### Notes

- Potency of **oral** Oxycodone reviewed by palliateddrugs.com recently and now thought to be morphine 1.5mg: oxycodone 1mg
- Oxycodone **subcutaneous** conversions are constantly being reviewed as this is a new product. Latest advice is oral oxycodone 1.5mg: parenteral oxycodone 1mg and parenteral oxycodone 1.5mg: parenteral diamorphine 1mg.

(The manufacturers conversion rates differ from the recommendations of palliateddrugs.com. Individual variance in response to opioids is always to be expected and careful titration according to individual response will be required)

- Alfentanil can be used as an alternative opioid parenterally and the total dose is one tenth of the diamorphine dose
- Morphine can be used parenterally and the dose conversion is one half of the oral dose (the same as the oxycodone parenteral dose)
- Methadone conversion more complex and not dealt with here.

<sup>1</sup> Rounded up to take into account specific tablet sizes available

<sup>2</sup> Rounded down to take into account specific tablet sizes available

- More precise equivalencies of Morphine to Fentanyl given in separate table below
- Hydromorphone only used infrequently: approximately 7.5 times as potent as Morphine orally.
- Patients on weak opioids are not opioid naïve – equivalent doses to morphine need to be taken into account – see separate table below.
- When converting from a HIGH dose of any opioid to another (say, over the equivalent of 500mg/day of morphine) it is usual to halve the calculated conversion dose initially to avoid opioid toxicity (Ref: PCF and other sources)
- Double check all conversions – take time and refer to PCF or Handbook of Palliative Medicine (Ian Back)
- When a patient is in terminal stage of illness and diamorphine is to be given by syringe driver as additional (“top up”) analgesia, the Fentanyl patch should stay on. Stat doses of diamorphine can be calculated by dividing the patch strength in mcg by 5 (i.e. a 100mcg patch requires 20mg diamorphine as breakthrough analgesia). For the initial syringe driver 24-hour dose, the addition of all the previous 24hour stat doses given can be used, or, if difficult to estimate, the equivalent of 2 or 3 stat doses can be used on the first day.

| <b>24 hour oral morphine (mg)</b> | <b>Fentanyl patch strength (mcg)</b> | <b>Breakthrough 4 hourly morphine (mg)</b> |
|-----------------------------------|--------------------------------------|--|
| <135                              | 25                                   | <20  |
| 135-224                           | 50                                   | 25-35                                      |
| 225-314                           | 75                                   | 40-50                                      |
| 315-404                           | 100                                  | 55-65                                      |
| 405-494                           | 125                                  | 70-80                                      |
| 495-594                           | 150                                  | 85-95                                      |
| 595-674                           | 175                                  | 100-110                                    |
| 675-764                           | 200                                  | 115-125                                    |
| 765-854                           | 225                                  | 130-140                                    |
| 855-944                           | 250                                  | 145-155                                    |
| 945-1034                          | 275                                  | 160-170                                    |
| 1035-1124                         | 300                                  | 175-185                                    |

(there is no upper limit)

| <b>Analgesic and dose (oral)</b>    | <b>Relative oral morphine equivalent (mg)</b> |
|-------------------------------------|---|
| Dihydrocodeine 240mg in 24 hours    | 24  |
| Codeine phosphate 240mg in 24 hours | 24  |
| Buprenorphine 600mcg in 24 hours    | 36  |
| Tramadol 200mg in 24 hours          | 20  |

Oxycodone MR tablets are available in 5mg, 10mg, 20mg, 40mg and 80mg strengths  
 Zomorph capsules are available in 10mg, 30mg, 60mg, 100mg and 200mg strengths

**\*These charts were modified 23/5/08 and will be constantly reviewed and updated: Dr Joy Waldox\***