Opioid Equianalgesic Doses (in mg)

Medication	Oral	Intravenous
Codeine	200	n/a
Fentanyl	n/a	0.1
Hydrocodone	20	n/a
Hydromorphone	7.5	1.5
Morphine	30	10
Oxycodone	20	n/a
Oxymorphone	10	1

How to use the Opioid Equianalgesic Doses Table

This table represents approximate equianalgesic doses (i.e., doses, in an opioid-naïve patient, that will provide a similar analgesic effect) for the most commonly used opioids for the control of pain. Determination of equianalgesic doses is not an exact science, thus calculations are estimates only and clinical judgment is always required.

Note: These approximations do not take into account the incomplete cross-tolerance between the various opioids that occurs with chronic dosing; meaning that patients will not be "as tolerant" to a new opioid as they were to the one they were on previously. So, when converting *from one opioid to another* (i.e., not when switching routes of the same agent), the calculated equianalgesic dose of the new agent must be reduced to prevent over-sedation and/or respiratory depression. The exact percent to reduce by is not known but is suggested to be between 25-50%.

Example: if patient used 10 mg IV hydromorphone in past 24 hours

1. Per the equianalgesic table: 1.5 mg IV hydromorphone = 20 mg oral oxycodone

$$\frac{\text{1.5 mg IV hydromorphone}}{\text{20 mg oral oxycodone}} = \frac{\text{10 mg IV hydromorphone}}{\text{X}}$$

X ≅ 133 mg oral oxycodone/24 hrs

2. Taking into account incomplete cross-tolerance, decrease the calculated dose by 25-50%:

   133 – (0.25 × 133) ≅ 100 mg oral oxycodone/24 hours

   133 – (0.50 × 133) ≅ 66 mg oral oxycodone/24 hours

3. To dose every 4 hours (i.e., 6 doses per 24 hours):

   100/6 ≅ 15 mg oxycodone every 4 hours

   66/6 ≅ 10 mg oxycodone every 4 hours

Therefore, order could be: **oxycodone 10-15 mg p.o. q4 hours prn pain**