

Opioid Dose Equivalence

Calculation of oral Morphine Equivalent Daily Dose (oMEDD)

$oMEDD (mg) = \text{Current Opioid Dose} \times \text{Conversion factor}$

CURRENT OPIOID		CONVERSION FACTOR	PROPRIETARY NAMES
ORAL (SWALLOWED) PREPARATIONS			
<i>Note: Modified release formulations are marked MR</i>			
Morphine	mg/day	1	Anamorph, Kapanol (MR), MS Contin (MR), MS Mono (MR), Ordine, Sevredol
Oxycodone	mg/day	1.5	Endone, OxyContin (MR), OxyNorm, Targin (MR)
Hydromorphone	mg/day	5	Dilaudid, Journista (MR)
Codeine	mg/day	0.13	Aspalgin, Codalgin, Panadeine, Panadeine Forte, Mersyndol, Nurofen Plus, others
Dextropropoxyphene	mg/day	0.1	Di-Gesic, Doloxene
Tramadol	mg/day	0.2	Durotram-XR (MR), Tramal, Tramadol SR (MR), Zydol, Zydol SR (MR), others
Tapentadol	mg/day	0.4	Palexia-SR (MR)
SUBLINGUAL PREPARATIONS			
Buprenorphine	mg/day	40	Suboxone, Subutex, Temgesic
RECTAL PREPARATION			
<i>Note: Absorption from rectal administration is highly variable</i>			
Oxycodone	mg/day	1.5	Proladone
TRANSDERMAL PREPARATIONS			
Buprenorphine	mcg/hr	2	Norspan
Fentanyl	mcg/hr	3	Denpax, Durogesic, Dutran, Fenpatch, Fentanyl Sandoz
PARENTERAL PREPARATIONS			
Morphine	mg/day	3	DBL morphine sulphate injection, DBL morphine tartrate injection
Oxycodone	mg/day	3	OxyNorm FI
Hydromorphone	mg/day	15	Dilaudid FI, Dilaudid-HP FI
Codeine	mg/day	0.25	Codeine phosphate injection USP
Pethidine	mg/day	0.4	Pethidine injection BP
Fentanyl	mcg/day	0.2	DBL fentanyl injection, Sublimaze
Sufentanil	mcg/day	2	

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Practical Considerations

- 1) This opioid dose equivalence table is intended for comparison of different opioid regimens in individual patients or in patient cohorts.
- 2) Caution is required if opioid dose equivalence tables are used to guide opioid switching, as the administration of a calculated 'equivalent' dose of the replacement opioid may lead to overdose.
- 3) It should be noted that there is considerable variability in pharmacokinetics and pharmacodynamics of the different opioids, within and between individual patients. In addition interactions with non-opioid drugs can strongly influence opioid pharmacokinetics.
- 4) Modified-release formulations can be sub-classified as delayed- or extended- release. Extended release of a drug can be achieved using sustained- or controlled-release delivery systems. When the opioid regimen includes modified- and immediate-release preparations, both should be included in calculation of the oMEDD.
- 5) Methadone, fentanyl lozenges and neuraxial opioids are not included in this table due to their complex and variable pharmacokinetics.
- 6) The conversion factors listed are derived from pooled data in the peer-reviewed literature and pharmaceutical company product information.

Selected References

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