Opioid Dose Equivalence Calculation Table

In order to calculate an oral Morphine Equivalent Daily Dose (oMEDD), multiply the current daily opioid dose by the conversion factor in column 3.

For example, oMEDD of oxycodone 40mg/day = 40 x 1.5 = 60mg/day

CURRENT OPIOID		CONVERSION FACTOR	PROPRIETARY NAMES
ORAL (SWALLOWED) PREPARATIONS *Note: Modified release formulations are marked MR*			
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, Jurnista (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	0.3	Palexia-SR (MR), Palexia-IR
SUBLINGUAL PREPARATIONS			
Buprenorphine	mg/day	40	Suboxone, Subutex, Temgesic
RECTAL PREPARATION *Note: Absorption from rectal administration is highly variable*			
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	
Faculty of Pain Medicine, ANZCA – June 2021			

Practical considerations

1. This opioid dose equivalence table is intended for comparison of different opioid and opioid formulations 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 overdosage.
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.

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