RECOMMENDED EQUIVALENT DOSES FOR OPIOID DRUGS FOR USE IN ADULTS.

N.B. This table is to be used as a guide rather than as a set of definite equivalences.

Hampshire Hospitals NHS
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Morphine					Subcutaneous Diamorphine		Subcutaneous Alfentanil		Oxycodone					Fentanyl	Buprenorphine	Tramadol	Codeine Phosphate
Oral (mg)			Subcutaneous (mg)						Oral (mg)			Subcutaneous (mg)		Transdermal Patch (mcg / hr)	Transdermal Patch (mcg / hr)	Oral (mg)	Oral (mg)
4hr dose	12hr dose	24hr total dose	4hr dose	24hr total dose	4hr dose (mg)	24hr total dose (mg)	4hr dose (mg)	24hr total dose (mg)	4 hr dose OXYNORM LIQUID	12hr dose OXYCONTIN TABLET	24hr total dose	4hr dose	24hr total dose	Patch strength STABLE PAIN ONLY **Change 72 hrly**	Patch strength STABLE PAIN ONLY Change at *intervals indicated*	24 hr total dose Max dose of Tramadol is 400mg in 24 hr equiv to 40mg of oral Morphine in 24 hrs	24 hr total dose
		5															**60**
		10													5 ***7 days***	100	**120**
		20													10 **7 days**	200	**240**
5	15	**30**	2.5	**15**	1.25	10	0.125	1	2.5	10	**15**	1.25	**7.5**	12	20 ***7 days***		
10	30	**60**	5	**30**	2.5-5	20	0.25	2	5	15	**30**	2.5	**15**	25	35 *96 hours*		
15	45	**90**	7.5	**45**	5	30	0.5	3	7.5	25	**50**	3.75	**25**	37	52.5 *96hours*		
20	60	**120**	10	**60**	7.5	40	0.75	4	10	30	**60**	5	**30**	37	70 *96hours*		
30	90	**180**	15	**90**	10	60	1	6	15	45	**90**	7.5	**45**	50	105 *96 hours*		
40	120	**240**	20	**120**	12.5	80	1.25	8	20	60	**120**	10	**60**	75	140 *96 hours*		
50	150	**300**	25	**150**	15	100	1.5	10	25	75	**150**	12.5	**75**	75			
60	180	**360**	30	**180**	20	120	2	12	30	90	**180**	15	**90**	100			
70	210	**420**	35	**210**	25	140	2.5	14	35	105	**210**	17.5	**100**	125			
80	240	**480**	40	**240**	27.5	160	2.5	16	40	120	**240**	20	**120**	125			
90	270	**540**	45	**270**	30	180	3	18	45	135	**270**	22.5	**135**	150			
100	300	**600**	50	**300**	35	200	3.5	20	50	150	**300**	25	**150**	150			
110	330	**660**	55	**330**	37.5	220	3.75	22	55	165	**330**	27.5	**165**	175			
120	360	**720**	60	**360**	40	240	4	24	60	180	**360**	30	**180**	200			

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See below for information on using the table and worked examples

How to use this table:

Look for the name of the drug you wish to prescribe. Then decide which route you wish to use. For parenteral use we recommend the subcutaneous route. If you are giving a long acting opioid (12 hrly dose or patch), you will need to prescribe a prn dose for breakthrough pain – this is one sixth of the 24 hour dose, or the 4hourly dose of the same drug, or, in the case of fentanyl or buprenorphine, use the correct 4hrly dose of morphine for breakthrough pain (this should be prescribed PRN, maximum hourly so that patients do not have to wait for rescue analgesia).

Worked Examples:

You wish to prescribe Slow Release Morphine (Zomorph or MST) 30mg bd

- This is the same as 60mg oral Morphine in 24 hours
- One sixth of this is the PRN dose – 10mg
- Prescribe 30mg bd Slow Release Morphine (Zomorph or MST) and 10mg Immediate Release Morphine (Oramorph) PRN, max hourly

You wish to prescribe a Fentanyl 100mcg/hr patch

This is the same as 360mg oral Morphine in 24 hours

- One sixth of this is the PRN dose – 60mg
- Prescribe Fentanyl patch 100mcg/hr (renew patch every 72 hours) and 60mg Immediate Release Morphine (Oramorph) PRN, max hourly

You wish to prescribe Slow Release Oxycodone (Oxycontin tablets) 60mg bd

- This is the same as 120mg oral Oxycodone in 24hrs (The same as 240mg Morphine in 24hrs)
- One sixth of this is the PRN dose – 20mg
- Prescribe Oxycontin Tablets 60mg bd and Oxynorm Liquid 20mg PRN, max hourly

You wish to change a patient from 30mg bd Slow Release Morphine onto a syringe driver

- This is the same as 60mg oral Morphine in 24hrs
- This is the same as 30mg subcutaneous Morphine in 24 hours – this is the dose to go in the syringe driver
- One sixth of this is the 4hrly dose – prescribe 5mg Morphine subcutaneously PRN, max hourly
- NB Most data on doses is based on single dose studies so it is not necessarily applicable in chronic use, also individual patients may metabolise different drugs at varying rates. The advice is to always calculate doses using morphine as standard and to adjust them to suit the patient and the situation. Caution should be used in renal and hepatic failure. Some doses have been rounded up or down to fit with the preparations available. Avoid patch use in unstable pain.
- At higher doses e.g. the equivalent of 180mg of oral Morphine in 24 hours or more, consider reducing the equianalgesic dose by 30-50% if converting from a less sedating Opioid e.g. Fentanyl to Morphine or Diamorphine (as the sedative effects may be much greater for an 'equianalgesic' dose)

References:

- Twycross R, Wilcock A, Howard P, Palliative Care Formulary. Fifth edition palliativedrugs.com Ltd; 2014.
- Napp Pharmaceuticals Ltd. Dose titration guidance. July 2012.
- Gibb, M. St Christopher's Hospice Guide to Equivalent Doses for Opioid Drugs. Second edition 2002.
- The Palliative Care Handbook. Advice on clinical management. Wessex Palliative Physicians. Eighth edition 2014.

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