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Severn Hospice Opioid Conversion Table – For Use in Adult Palliative Care Patients

- This is to be used as a guide. Individual patients may metabolise different drugs at different rates. If in doubt, **ASK**
- Always calculate the dose using oral morphine as standard and adjust to patient and situation
- **When switching opioids, a dose reduction of 25-30% is recommended. When converting high doses it is recommended to reduce the dose by 50% initially to avoid toxicity. Discuss with specialist palliative care team – Consultant advice available 24/7.**
- Breakthrough doses should be approximately 1/6 of total daily dose
- Renal impairment is likely to increase the risk of opioid toxicity. Discuss with specialist palliative care team. Consider Alfentanil for patients with eGFR <30.

Morphine					Diamorphine		Oxycodone					Fentanyl	Buprenorphine	Alfentanil
Oral mg			Sub cut mg		Sub cut mg		Oral mg			Sub cut mg		Transdermal mcg/hour (100:1)	Transdermal Patch mcg/hour	Sub cut Specialist use only
4hr dose	12hr MR dose	24hr total dose	4hr dose	24hr total dose	4 hr dose	24 hr dose	4 hr dose	12hr MR dose	24hr total dose	4hr dose	24hr total dose	Patch strength Stable pain only PCF6 pg 417 Change every 3 days	Patch strength Stable pain only PCF6 pg 407 Approx. equivalent	24 hour total dose (mg)
		5		2.5										
		10		5									5 Butrans	
		15		7.5									5 Butrans	
		20		10									10 Butrans	
5	15	30	2.5	15	1.25	10	2.5	7.5	15	1.25	7.5	12mcg/hr	15 Butrans	1
10	30	60	5	30	2.5	20	5	15	30	2.5	15	25mcg/hr	20+5 Butrans	2
15	45	90	7.5	45	5	30	7.5	25	50	3.75	25	37.5 mcg/hr	35 Transtec	3
20	60	120	10	60	7.5	40	10	30	60	5	30	50mcg/hr	52.5 Transtec	4
30	90	180	15	90	10	60	15	45	90	7.5	45	75mcg/hr	70 Transtec	6
40	120	240	20	120	12.5	80	20	60	120	10	60	100 mcg/hr	70 + 35 Transtec[extp]	8
50	150	300	25	150	15	100	25	75	150	12.5	75	125mcg/hr[+*]	70 +52.5 Transtec[ext]	10
60	180	360	30	180	20	120	30	90	180	15	90	150mcg/hr[+*]	70+70 Transtec[extp]	12
70	210	420	35	210	25	140	35	105	210	17.5	100	175mcg/hr[manufacturer]		14
80	240	480	40	240	27.5	160	40	120	240	20	120	200 mcg/hr[ditto]		16

Opioid CONVERSION EXAMPLES overleaf

co-codamol is 1/10 strength of oral morphine

co-dydramol 1/10 strength of oral morphine

oral Tramadol is 1.5/10 strength of oral morphine

when changing between different opioid drugs always compare the 24-hour doses and the same formulation

always compare the 24hour doses when changing between different formulations of the same drug

TD Fentanyl is approx. 100 to 150 times more potent than oral morphine. we use a 100:1 conversion rate PCF6[pg417]

TD Buprenorphine 5 mcg/hr (Butrans® 5) is approx. equivalent to oral morphine 12mg/24 hours[pcf6 pg 407]

The table is a guide to dose conversions. Sources used: PCF6, www.wmcares.org.uk [+], Scottish palliative care guidelines*

Converting from a weak oral opioid to oral morphine:
Multiply the total 24-hr dose of weak opioid by its potency ratio to get the equivalent total 24-hr dose of oral morphine.

Converting po codeine to po morphine

- 30/500 co-codamol given as 2 tablets QDS = 60mg codeine x4 = 240mg in 24 hours
- From Table below, co-codamol potency equivalence = 0.1
- Multiply 240mg x 0.1= 24mg
- Therefore, the approximate equivalent 24-hr dose oral morphine is 24mg.
- Prescribe morphine MR 10mg BD 12 hours apart.

Converting po dihydrocodeine to po morphine

- 30/500 co-dydramol given as 2 tablets QDS = 60mg dihydrocodeine x4 = 240mg in 24 hours
- From Table below, co-dydramol potency equivalence = 0.1
- Multiply 240mg x 0.1= 24mg
- Therefore, the approximate equivalent 24-hr dose oral morphine is 24mg.
- Prescribe morphine MR 10mg BD 12 hours apart.

Converting oral tramadol to oral morphine

- Tramadol 50mg QDS = 200mg in 24 hours
- From Table below, tramadol potency equivalence = 0.15
- Multiply 200mg x 0.15 = 30mg
- Therefore, the approximate equivalent 24-hr dose oral morphine is 30mg.
- Prescribe morphine MR 15mg BD 12 hours apart.

Medicine	Potency ratio with oral morphine	information
Codeine phos.(Co-codamol) Dihydrocodeine (Co-dydramol)	0.1	These are all 1/10th as strong as oral morphine See conversion examples above
Tramadol	0.15	Tramadol is slightly stronger potency to codeine, and patient should not be on both Tramadol and Codeine.

Converting from oral morphine to another strong oral opioid e.g. oxycodone:
Divide the total 24-hr dose of oral (po) morphine by the potency ratio for the oral opioid which you are converting to.

Converting from po morphine m/r 30mg bd to po oxycodone:

- Total daily dose of morphine is 60mg.
- From Table below, oxycodone potency equivalence = 2.
- Divide 60mg/2 = 30mg.
- Therefore, the approximate equivalent 24-hr dose oral oxycodone is 30mg.
- Prescribe oxycodone MR 15mg BD 12 hours apart.

Morphine	1	Safer in Liver dysfunction, but cation in renal impairment CKD>3
Oxycodone	2	Safer in Renal dysfunction (BNF safe up to eGFR 10, but practically recommend eGFR >30)