

Opiate dose conversion chart, syringe driver doses, rescue/PRN doses and opiate patches

Use the conversion chart to work out the equivalent doses of different opiate drugs by different routes.
The formula to work out the dose is under each drug name. Examples are given as a guide. If in doubt, ASK.

Oral opiate/24 hr (Divide 24hr dose by six for 4 hourly oral dose)		Subcutaneous infusion of opiate Syringe driver (SD) dose in mg per 24 hours				Subcutaneous prn opiate Dose (mg) every 4 hours injected as required			Opiate by patch Dose microgram/hr	
Morphine 24 hour	Oxycodone 24 hour	Diamorphine 24 hour	Morphine 24 hour	Oxycodone 24 hour	Alfentanil 24 hour	Diamorphine 4 hour	Morphine 4 hour	OxyNorm 4 hour	Fentanyl change every 72 hrs	Buprenorphine B=Butrans change 7 days T = Transtec change 96 hrs
	Calculated by dividing 24hr oral morphine dose by 2	Calculated by dividing oral morphine dose by 3	Calculated by dividing oral morphine dose by 2	Calculated by dividing oral oxycodone dose by 2	Calculated by dividing diamorphine s/c dose by 10	PRN dose is one sixth (1/6 th) of 24 hour subcutaneous (s/c) infusion / syringe driver dose			If stopping or starting patches refer to Fentanyl (local) or Buprenorphine (manufacturer) guidance.	
20	10	5	10	5	500mcg	1	2	1	(6)	B 10mcg/hr
45	20	15	20	10	1500mcg	2	3	2	12	B 20mcg/hr
90	45	30	45	20	3mg	5	6	3	25	T 35mcg/hr
140	70	45	70	35	4500mcg	8	10	5	37	T 52.5mcg/hr
180	90	60	90	45	6mg	10	15	8	50	T 70mcg/hr
230	115	75	115	60	7500mcg	10	20	10	62	T 70+35mcg/hr
270	140	90	140	70	9mg	15	25	10	75	T70+52.5mcg/hr
360	180	120	180	90	12mg	20	30	15	100	T 140
450	225	150	225	110	15mg	25	35	20	125	
540	270	180	270	135	18mg	30	45	20	150	
630	315	210	315	160	21mg	35	50	25	175	
720	360	240	360	180	24mg	40	60	30	200	

Equivalent doses if converting from oral to sc opiate

Breakthrough/ rescue/PRN dose calculation:

Oral

- Morphine or Oxycodone: 1/6th of 24 hour oral dose

Subcutaneous

- Morphine, Diamorphine & Oxycodone: 1/6th 24hr s/c syringe driver (SD) dose
- Alfentanil: 1/10th 24hr s/c SD dose.
- Fentanyl patch: 1/5th mcg/hr patch dose = Diamorphine (dose/mg) s/c

(For ease of administration doses over 10mg prescribe to nearest 5mg)

Renal failure/impairment:

Morphine/Diamorphine metabolites may accumulate & usually a dose reduction is required

Consider

- If pain stable using a fentanyl patch.
- Oxycodone orally or by infusion
- Alfentanil by infusion

Diamorphine shortage or in hospital:

Consider morphine or oxycodone.
At high doses, syringe driver volumes may make morphine & oxycodone difficult - use Alfentanil instead.

Fentanyl patches in the dying/moribund patient

Continue Fentanyl patches every 72 hours in these patients.

- Subcutaneous prn doses in the table above take into account the background opiate from the patches
- Remember to change the patch(es) as occasionally this is forgotten!
- If pain occurs whilst patch in situ
 - Give 4 hourly PRN doses of s/c diamorphine or morphine
 - NB community use Diamorphine & hospital use Morphine**
 - If unavailable or contraindicated use an alternative injectable 4 hourly opiate

4 hourly subcutaneous opiates for equivalence look at shaded box

Adding a syringe driver to a patch

If 2 or more rescue/ PRN doses are needed in 24hours, start a syringe driver with appropriate opiate and continue the patch(es). The opiate dose in the syringe driver should equal the total prn doses given in the previous 24 hours up to a maximum of 50% of the existing regular opiate dose. Providing pain opiate sensitive continue to give prn sc opiate dose & review syringe driver dose daily. E.g. Patient on a 50mcg/hr Fentanyl patch is unable to take oral opiate & requires 2 extra doses 15mg sc morphine (or 2x10 mg sc Diamorphine) Starting sc opiate dose in syringe driver(SD) over 24hour will be 30mg Morphine (or Diamorphine 20mg). Remember to look at the dose of the patch and the dose in the syringe driver to work out the new rescue dose each time a change is made.

Always use the chart above to help calculate the correct doses.