

INJECTABLE MORPHINE.

Morphine: is the cheapest alternative injectable to diamorphine.

No difference in overall efficacy between them.

No advantage of one over the other, except that diamorphine is more soluble.

In practice this becomes relevant quite quickly: Experience differs-some reports that you can dissolve up to 80mg morphine in 1ml...but most report difficulty in dissolving more than 40mg/ml...and with other s/c medicines (morphine IS compatible with all the usuals), solubility may be reduced further-reports of only 4mg/ml dissolving.

Morphine injectable comes in various ampoule strengths and sizes: 1, 10, 15, 20 and 30mg/ml strengths-each in 1 and 2 ml ampoule sizes.

Diamorphine s/c converts to morphine injectable s/c as follows:

Ratio is 2 (diamorphine) to 3 (morphine s/c) – i.e. morphine s/c is 2/3 the strength of diamorphine.

Please refer to the following table for ease of calculation.

EQUIVALENT DOSES OF ORAL MORPHINE, DIAMORPHINE AND INJECTABLE MORPHINE					
ORAL MORPHINE		INJECTABLE DIAMORPHINE		INJECTABLE MORPHINE	
4 hourly immediate release tabs/liquid (e.g. sevedol, oramorph)	12 hour modified release oral morphine (e.g. MST)	4 hr subcutaneous injection (and thus prn dose)	24 hour continuous subcutaneous infusion	4 hr subcutaneous injection (and thus prn dose)	24 hour continuous subcutaneous infusion
EVERY 4 HOURS o	EVERY 12 HOURS o	EVERY 4 HOURS s/c	EVERY 24 HOURS s/c	EVERY 4 HOURS s/c	EVERY 24 HOURS s/c
5mg	15mg	≅ 2.5mg	10mg	≅ 2.5mg	15mg
10mg	30mg	≅ 2.5mg	20mg	5mg	30mg
15mg	45mg	5mg	30mg	7.5mg	45mg
20mg	60mg	7.5mg	40mg	10mg	60mg
30mg	90mg	10mg	60mg	15mg	90mg
40mg	120mg	15mg	80mg	20mg	120mg
50mg	150mg	15mg	100mg	25mg	150mg
60mg	180mg	20mg	120mg	30mg	180mg
80mg	240mg	30mg	160mg	40mg	240mg
120mg	360mg	40mg	240mg	60mg	360mg
150mg	450mg	50mg	300mg	75mg	450mg
180mg	540mg	60mg	360mg	90mg	540mg
When oral modified release preparations are used always make sure that a sensible dose of oral prn is available: 1/6th of the daily dose. The same applies to people on a 24 hour continuous subcutaneous injection: when a 24 hour s/c driver is needed always make sure that a sensible dose of s/c prn is available: 1/6th of the daily dose					