

1. OPIATE POTENCY RATIOS

To convert to morphine: multiply the total daily oral dose in mgs of the opioid by the figure given, to give the total oral daily dose of morphine in mgs.

To convert from morphine to another opioid: divide the total daily oral dose in mgs of morphine by the figure given, to give the total oral daily dose of other opioid in mgs.

Diamorphine	1.5	
Buprenorphine	60	(Temgesic)
Codaine	0.08	
Dextromoramide	2	(Palfium)
Dihydrocodeine	0.1	
Dipipanone	0.5	(Diconal - includes cyclizine)
Fentanyl - see next section		
Hydromorphone	7.5	
Methadone	3-4	
Oxycodone	1	
Pethidine	0.125	
Phenazocine	5	(Narphen)
Tramadol	0.25	

Considerable inter-patient variation will occur, and appropriate care should always be taken when converting doses from one opioid to another.

Single doses:

Because some opioids have a significantly shorter or longer half-life than morphine, the conversion factor for a single dose is different from that of a total daily dose.

To find the equivalent peak effect from a single dose, use:

Dextromoramide	3	(Palfium)
Methadone	1.5	

MST BD	ORAMORPH (breakthrough)	24H S/C DM	S/C DM (breakthrough)
10-20 mg	2.5-5 mg	10-15mg	2.5 mg
30 mg	10mg	20mg	2.5-5 mg
40-50 mg	15mg	30mg	5mg
60-70 mg	20mg	45mg	7.5mg
80/90/100mg	30mg	60mg	10mg
130mg	40mg	90mg	15mg
160mg	50mg	110mg	20mg
200mg	60-70mg	140mg	25mg
300mg	100mg	200mg	30mg
400mg	130mg	250mg	40mg
500mg	160mg	300mg	50mg
1g	300mg	600mg	100mg

(These are approximate conversions)

The correct way to convert oral morphine to s/c diamorphine is to divide the 24 hour dose by one third

The breakthrough dose of oramorph is one third of the 12 hourly morphine dose (MST)

The breakthrough dose of diamorphine is one sixth of the 24 hourly dose

2. FENTANYL DOSE CONVERSION

Fentanyl transdermal system (Durogesic)

Oral morphine 24hr	* Oral morphine 4hr	* Dia-morph 24hr s/c	(Patch) Fentanyl µg/hr	Fentanyl µg/24hr
Naive	-	-	25	600
<135	<20	<40	25	600
135-225	30	60	50	1200
225-315	45	90	75	1800
315-405	60	120	100	2400
405-495	75	150	125	3000
495-585	90	180	150	3600
585-675	105	210	175	4200
675-765	120	240	200	4800
765-855	135	270	225	
855-945	150	300	250	
945-1035	165	330	275	
1035-1125	180	360	300	

* = Mid-range figures

As a quick aide-memoir:

Divide the strength of the fentanyl patch (in µg /hr) by 5 to give the dose in mgs of diamorphine s/c for breakthrough pain.