



OPIOIDS CONVERSION GUIDELINES – 2007

Opioid analgesics vary in potency, side effect and pharmacokinetic profile. Therefore the Opioid Conversion Guidelines has been developed to assist when changing opioid drug therapy.

When opioid rotating for intolerable side effects or inadequate analgesia, it is advisable to reduce the dose of the new opioid by 25-50% due to incomplete cross-tolerance.

Please note that all conversions in these guidelines are a guide only as individual patients and drugs may react together in different ways.

Oral to Oral

Oral to Oral	Ratio	Example
Oral Morphine to Oral Tramadol	1 : 5	Oral Morphine 10mg = Oral Tramadol 50mg
Oral Morphine to Oral Codeine	1 : 8	Oral Morphine 7.5mg = Oral Codeine 60mg
Oral Morphine to Oral Methadone	?	Complex pharmacology, discuss with Consultant. Dose requires to be titrated.
Oral Morphine to Oral Oxycodone	1.5 : 1	Oral Morphine 15mg = Oral Oxycodone 10mg
Oral Morphine to Oral Hydromorphone	5 : 1	Oral Morphine 5mg = Oral Hydromorphone 1mg
Oral Dextropropoxyphene to Oral codeine	1 : 1	Digesic/Capadex (32.5/325mg) = Panadeine Forte (30mg/500mg)

Oral to Subcutaneous

Oral to Subcutaneous	Ratio	Example
Oral Morphine to SC Morphine	2-3 : 1	Oral Morphine 20-30mg = SC Morphine 10mg
Oral Methadone to SC Methadone	2 : 1	Oral Methadone 20mg = SC Methadone 10mg
Oral Hydromorphone to SC Hydromorphone	2-3 : 1	Oral Hydromorphone 2-3mg = SC Hydromorphone 1mg
Oral Oxycodone to SC Oxycodone	2 : 1	Oral Oxycodone 20mg = SC Oxycodone 10mg



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Subcutaneous to Subcutaneous

Subcutaneous to Subcutaneous	Ratio	Example
SC Morphine to SC Hydromorphone	5 : 1	SC Morphine 10mg = SC Hydromorphone 2mg
SC Fentanyl to SC Sufentanil	10 : 1	SC Fentanyl 100mcg = SC Sufentanil 10mcg
SC Morphine to SC Fentanyl	70-100 : 1	SC Morphine 10mg = SC Fentanyl 100-150mcg
SC Morphine to SC Oxycodone	1-1.5 : 1	SC Morphine 10-15mg = SC Oxycodone 10mg
SC Morphine to SC Pethidine	1 : 10	SC Morphine 10mg = SC Pethidine 100mg

Subcutaneous to Other Opioid Conversions

Subcutaneous to Other	Ratio	Example
SC or SL Fentanyl to TTS Fentanyl	1 : 1	Fentanyl 600mcg/24 hr CSCI = Fentanyl patch 25 mcg/hr
SC Sufentanil to SL Sufentanil	1 : 1	Sufentanil 10mcg CSCI = Sufentanil SL 10mcg
SC Morphine to Epidural Morphine	10 : 1	Morphine 100mg/24 hr CSCI = Morphine Epidural 10mg daily
SC Morphine to IT Morphine	100 : 1	Morphine 100mg/24 hr CSCI = Morphine IT 1mg daily
SC Morphine to I/Ventricular Morphine	1000 : 1	Morphine 100mg/24 hr CSCI = Morphine Intraventricular 0.1 mg daily

TTS = Transdermal Therapeutic System CSCI = Controlled Subcutaneous Infusion IT = Intrathecal Route



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Opioid Patch & Equivalent Morphine / Oxycodone Doses

Strength	TTS Medication	Delivery Rate (micrograms /hour)	SC Morphine (mg/ 24 hours)	Oral Morphine (mg/ 24 hours)	Oral Oxycodone (mg/ 24 hours)
Durogesic 12	Fentanyl	12	10 - 20	20 - 60	15 - 40
Durogesic 25	Fentanyl	25	30 - 40	60 - 100	40 - 70
Durogesic 50	Fentanyl	50	60 - 80	120 - 200	80 - 140
Durogesic 75	Fentanyl	75	90 - 120	180 - 300	120 - 200
Durogesic 100	Fentanyl	100	120 - 160	240 - 400	180 - 270
Norspan 5	Buprenorphine	5		9 - 13	5 - 10
Norspan 10	Buprenorphine	10		18 - 26	10 - 20
Norspan 20	Buprenorphine	20		36 - 53	25 - 40

After application of the fentanyl patch peak plasma levels are achieved ~ 24 hours (significant plasma levels occur in 12 to 16 hours).
Buprenorphine patch takes 3 days to achieve its steady state.
On removal serum elimination half lives are: fentanyl 15 – 20 hours: buprenorphine 12 hours.
Oral opiates should not be started until at least 12 hours following removal of either patch (excluding breakthroughs). Regular oral analgesia needs to be continued for 12-24 hours after commencing either patch.

FORMULA for calculating SUFENTANIL Break-Through Doses (BTD) for a given Fentanyl Patch.
For a given Fentanyl Patch of x mcg/hr: $BTD = x/5$ micrograms of Sufentanil 2 hourly
e.g. for Durogesic 25: $BTD = 25/5$ i.e 5 microgram Sufentanil 2 hourly
Break-Through Doses should not exceed 40 micrograms Sufentanil
Sufentanil is available as 250 mcg/5ml – i.e. 50 mcg/ml



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Oral Analgesic Preparations

Drug	Trade Name	Release Rate	Usual Frequency	Presentation
Buprenorphine	Temgesic	Immediate	Every 6-8 hours	200mcg tablets
Dextropropoxyphene/ Paracetamol	Digesic/Capadex / Paradex	Immediate	Every 6-8 hours	32.5mg/325mg tablets/capsules
Fentanyl	Actiq	Immediate	Every 2 -3 hours	200,400,600, 800mcg lozenges
Hydromorphone	Dilaudid	Immediate	Every 2-3 hours	2,4,8mg tabs, 1mg/ml mixt
Methadone	Physeptone	Immediate	Every 12 hours	10mg tablets, 5mg/ml mixt
Morphine	MS Contin	Slow Release	Every 12 hours	5, 10, 15, 30, 60, 100, 200mg tab
	MS Contin Suspension	Slow Release	Every 12 hours	20, 30, 100mg sachet
	MS Mono	Slow Release	Every 24 hours	30, 60, 90, 120mg capsule
	Kapanol	Slow Release	Every 12-24 hours	10, 20, 50, 100mg capsule
	Anamorph	Immediate	Every 4-6 hours	30mg tablet
	Sevredol	Immediate	Every 4-6 hours	10, 20mg tablets
	Ordine	Immediate	Every 2-4 hours	1mg, 2mg, 5mg,10mg/ml mixture
Oxycodone	OxyContin	Slow Release	Every 12 hours	5, 10, 20, 40, 80mg tablet
	Endone	Immediate	Every 4-6 hours	5mg tablet
	OxyNorm	Immediate	Every 4-6 hours	5, 10, 20mg capsule. 5mg/5ml Liquid
Tramadol	Tramal/Zydol	Immediate	Every 4-6 hours	50mg tablet
	Tramal SR / Zydol SR	Slow Release	Every 12 hours	100mg, 150mg, 200mg tablet



Reference/Supporting Framework:

Analgesic Therapeutic Guidelines. Edition 4. Melbourne. 2002

Palliative Care Therapeutic Guidelines. Edition 2. Melbourne 2005.

Australian Medicines Handbook. 2007

Product information. Mims [On-Line] Available: <http://mims.hcn.net.au> [2007,May]

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