

Clinical assessment of pain

- patient's pain needs to be accurately evaluated and a coordinated management plan devised, based on a cogent diagnosis.
- aims of treatment include restoration of function, a decrease in the level of the patient's distress, a reduction in depression, and a return to normal activities
- necessitates the use of skills brought by clinical psychologists, physiotherapists, occupational therapists and work-cover providers.

imaging

- indicated where there is a high suspicion of nonmechanical disease.
- plain films can detect problems such as Paget's disease, fractures and some sclerotic or lytic lesions.
- radionuclide bone scan if neoplastic or metabolic disease is suspected
- where there are associated neurological signs, the investigation of choice is CT scanning or MRI, as the important clinical decision is whether or not surgical consultation is needed for nerve decompression.

NPS

- Use paracetamol as ongoing therapy: the modified-release formulation offers convenience
- Use NSAIDs where cardiovascular, renal and gastrointestinal risk is acceptable
- Consider an opioid when non-opioids offer inadequate pain control or NSAIDs are unsuitable
- Tramadol's role in mild–moderate pain is limited by drug interactions and CNS adverse effects.

ORAL MORPHINE TO OTHER ORAL ANALGESICS

Oral to Oral	Conversion Ratio	Example
Morphine to Tramadol	1:5	Oral Morphine 10 mg = Oral Tramadol 50 mg
Morphine to Codeine	1:8	Oral Morphine 7.5 mg = Codeine 60 mg
Morphine to Methadone	-	CONSULTANT REQUIRED. See methadone conversion page for more information. Page: 15
Morphine to Oxycodone	1.5:1	Oral Morphine 15 mg = Oral Oxycodone 10 mg
Morphine to Hydromorphone	5:1	Oral Morphine 5 mg = oral Hydromorphone 1 mg

Buprenorphine

- A partial opioid agonist at mu receptors and an antagonist at kappa receptors, with a prolonged duration of action.
- The 7-day transdermal patch is indicated for use in moderate to severe pain.
- It reaches steady state after 3 days, and plasma levels decrease by 50% approximately 12 hours after the patch is removed.

TRANSDERMAL BUPRENORPHINE to ORAL MORPHINE^{NOTE 6, 7}

Patch Strength	Delivery Rate	Conversion Ratio	Oral Morphine Dose
Buprenorphine 5 mg/7 days 120 micrograms/24 hours	5 micrograms/hour	100:1	12 mg/24 hours
Buprenorphine 10 mg/7 days 240 micrograms/24 hours	10 micrograms/hour	100:1	24 mg/24 hours
Buprenorphine 20 mg/7 days 480 micrograms/24 hours	20 micrograms/hour	100:1	48 mg/24 hours

TRANSDERMAL FENTANYL TO MORPHINE

Note 8

Patch Strength	Dose	Parenteral Morphine equivalent (mg/24 hours)	Oral Morphine equivalent (mg/24 hours)
Fentanyl Patch 12 microgram/hour	288 mcg/24 hours	15 to 20	30 to 50
Fentanyl Patch 25 microgram/hour	600 mcg/24 hours	30 to 40	60 to 100
Fentanyl Patch 50 microgram/hour	1200 mcg/24 hours	60 to 80	120 to 200
Fentanyl Patch 75 microgram/hour	1800 mcg/24 hours	90 to 120	180 to 300
Fentanyl Patch 100 microgram/hour	2400 mcg/24 hours	120 to 160	240 to 400

Neuropathic pain

- Typically described as a constant burning, episodic shooting or electric pain in a region where there is a disturbance of sensory and/or motor function, particularly to pinprick and thermal (warm and cold) sensibility.
- Characterised by spontaneous pain, and by abnormal evoked responses including:
- **hyperalgesia**—an increased responsiveness to normally painful stimuli
- **allodynia**—a painful response to normally nonpainful stimuli
- **hyperpathia**—an abnormally painful reaction to a stimulus, especially a repetitive stimulus, with an increased threshold.
- These sensory disturbances may spread outside recognised anatomic boundaries for nerves and receptor fields.

The clinical features of CRPS

- A history of a preceding injury
- Pain that is usually disproportionate to the inciting injury
- Pain that is often shooting in nature, and associated with allodynia and hyperalgesia
- Pain that is not confined to a specific nerve territory, but is regional (eg involving the hand and forearm)
- Vasomotor changes, including colour (cyanosis or pallor) and temperature disparity
- Sudomotor changes, especially diaphoresis of the affected limb
- Oedema
- Other somatosensory abnormalities, including sensory neglect (rare)
- Motor dysfunction, including abnormal posturing, weakness, tremor, myoclonic jerking (occasionally), and neglect (rare)

Pregabalin

25, 50, 75, 100, 150, 200, 225, and 300-mg

- is an analogue of gamma-aminobutyric acid (GABA) and has anticonvulsant and analgesic properties.
- It is thought to act by binding to voltage-gated calcium channels in the central nervous system and possibly also by reducing release of neurotransmitters including glutamate, noradrenaline and substance P.
- It does not appear to interact with GABA receptors nor to interfere with GABA turnover.
- The main adverse effects observed are somnolence, dizziness, blurred vision, weight gain, peripheral oedema and elevations of creatine kinase

duloxetine and desvenlafaxine

30mg 60mg

- potent serotonin and noradrenaline reuptake inhibitors (SNRIs). All are weak inhibitors of dopamine reuptake.
- May increase serum transaminase concentrations with a corresponding risk of hepatic insufficiency.
- Should not be prescribed for patients who consume substantial quantities of alcohol or who have hepatic impairment.