

WAIKATO HOSPITAL PALLIATIVE CARE SERVICE

Palliative Care Guidelines

**Adapted from Christchurch Hospital Palliative Care Service
guidelines – with thanks.**

Reviewed by Waikato Hospital Palliative Care Team-July 2008.

DISCLAIMER

Every effort has been made to ensure the accuracy of this text, and that the best information available has been used. This does not diminish the requirement to exercise clinical judgement, and neither the publishers nor the authors can accept responsibility for its use in practice.

CONTENTS. (Use mouse to navigate around the document)

1.	Management of Persistent Pain in the Palliative Setting	6
1.1	Mild to Moderate Pain	6
1.2	Opioid Therapy for Severe Pain	8
1.3	Morphine	9
1.4	Other Opioids	12
1.5	Prescribing of Opioids	14
2.	Co-Analgesics	15
2.1	Corticosteroids	15
2.2	NSAIDs	15
2.3	Tricyclic Antidepressants	15
2.4	Anticonvulsants	16
2.5	Ketamine	16
2.6	Benzodiazepines	17
2.7	Baclofen	17
2.8	Neuroleptics	17
2.9	Bisphosphonates	17
2.10	Calcitonin	18
2.11	Referral to Other Services	18
3.	Nausea and Vomiting	19
3.1	First-line Antiemetics	19
3.2	Second-line Antiemetics	21
4.	Constipation	23
4.1	Laxatives	23
4.2	Enemas	24
4.3	Severe Constipation	24
5.	Intestinal Obstruction	25
5.1	General Considerations	25
5.2	Medical Management	26
6.	Dyspnoea	27
6.1	Morphine	27
6.2	Benzodiazepines	27
6.3	Steroids	28
6.4	Oxygen	28
7.	Cough	29
7.1	Dry Cough	29
7.2	Productive Cough	29
8.	Respiratory Tract Secretions	30
9.	Hiccoughs	31
10.	Dry Mouth	32

11.	Sweating	33
12.	Itch/ Pruritis	34
13.	Agitation	35
14.	Delirium	36
15.	Care of the Imminently Dying	38
15.1	Excessive Airway Secretions (Death Rattle).....	38
15.2	Terminal Agitation	39
16.	Subcutaneous Administration of Medications	40
16.1	Subcutaneous Bolus Medications.....	40
17.	Guidelines for Referral to the Palliative Care Service	41
17.1	Referral is appropriate when	41
17.2	How the Palliative Care Team work	41
17.3	Making a referral	42
	References and Resources	43
	Authors	43

1. Management of Persistent Pain in the Palliative Setting

This is a fundamental aspect of caring for palliative patients. Pain may be a patient's greatest fear and adequate pain relief is essential for their comfort and dignity.

Several principles should be followed closely:

- The characteristics and cause of each pain should be established (there is often more than one type of pain).
- Pain is most often due to tumour involvement but also can be related to its treatment (e.g. mucositis), to complications of general illness and debility (e.g. constipation, pressure areas, etc) and can also be completely unrelated to the cancer (e.g. arthritis, IHD, etc).
- Analgesics should be charted and given **regularly**.
- Adequacy of pain relief and development of side effects should be monitored regularly.
- Patients must be reviewed carefully for concurrent problems if analgesic requirements increase.
- Oral regimens are the most acceptable and convenient.
- When using opioids, simple analgesics such as Paracetamol should be continued and co-analgesics may also be necessary.
- The concept of 'Total Pain' is used widely in Palliative Care and acknowledges that cancer pain is caused by and influenced by many issues. Physical pain is only one component – attention must be given to psychological problems, social problems, intellectual, spiritual and cultural issues and other concurrent physical symptoms.

1.1 *Mild to Moderate Pain*

1.1.1 Paracetamol

500 – 1000mg PO qid (Maximum dose 4g/ 24 hours).

Paracetamol is safe to use if patient has liver metastases but the dose should be reduced in hepatic failure.

1.1.2 Codeine Phosphate

Note: Codeine is rarely indicated for pain management in palliative care.

15 – 60mg PO 4-6 hourly (Maximum dose 240mg/ 24hours).

[Contents](#) 

1.1.3 Dihydrocodeine (DHC Continus™)

Note: DHC Continus™ is rarely indicated for pain management in palliative care.

60-120mg bd. Anticipate and warn about constipation.

Morphine is the most commonly used as first line opioid. Codeine and Dihydrocodeine are only temporary strategies for analgesia given the limited potency, dosing limitations and the high incidence of side effects.

Codeine phosphate is about one tenth as potent as **morphine** i.e. *60mg codeine* *6mg morphine*.

10% of the caucasian population do **not** metabolise codeine phosphate to its active form which is morphine.

If the patient is taking selective serotonin re-uptake inhibitors (SSRI's) concurrently, codeine phosphate may be ineffective.

1.1.4 Tramadol

Not recommended routinely for reasons of efficacy and side effects and has a significant part-charge for the patient.

The dose is 50-100mg, 4 hourly PO/IV/IM.

A slow release preparation is now available with 50mg, 100mg, 150mg and 200mg tabs for bd dosing. *50mg PO Tramadol* \cong *10mg PO Morphine*.

It has high bio-availability so that the potency of IV and PO is roughly equivalent.

By injection, Tramadol is one tenth as potent as Morphine.

Tramadol is part opioid but it also inhibits the uptake of noradrenaline and serotonin – it is thought to act like a tricyclic antidepressant in neuropathic pain and the dual mode of action is probably synergistic.

The major side effect is NAUSEA but it is less sedating and less constipating than Codeine or Morphine – PRN laxatives must still be charted.

It must NOT be used concurrently with SSRIs e.g. **Fluoxetine** due to risk of serotonin syndrome and **Monoamine Oxidase Inhibitors (MAOI)** must be stopped 14 days before commencing **Tramadol**.

Not recommended in patients with epilepsy.

1.1.5 Non Steroidal Anti-inflammatory Drugs (NSAIDs)

These are all ulcerogenic in the gastro-intestinal tract (even if given rectally or topically) – especially Aspirin and may precipitate acute renal failure.

[Contents](#) 

All NSAIDS should be used with caution in palliative care.

A second NSAID from a different subclass (excluding Aspirin) may be effective if the first choice has failed – **Naproxen** and **Diclofenac** are from different subclasses.

The ulcerogenic potential of NSAIDs may be increased by concurrent use of corticosteroids – this combination is best avoided, particularly in the elderly.

If corticosteroids must be combined with an NSAID or there is a past history of peptic ulceration, proton pump inhibitors (e.g. **Omeprazole** or **Pantoprazole**) reduce the risk of duodenal and gastric ulceration. **Misoprostol** has been shown to reduce the incidence of gastric ulceration.

Diclofenac SR 75mg bd or 100mg daily PO/PR and **Naproxen** 250-500mg PO bd. are examples of commonly used NSAIDS.

Tenoxicam (Tilcotil™) can be used via subcut injection, 20mg daily – it has a long half-life and can be given once daily.

1.1.6 **Digescic™ and Paradex™ (Dextropropoxyphene + Paracetamol)**

These are generally **not** recommended. They are no more effective than the standard therapy and are known to be dangerous in overdose.

1.1.7 **Nefopam Hydrochloride (Acupan™)**

This drug has a high incidence of side effects including hallucinations and confusion and is **not** recommended

1.2 **Opioid Therapy for Severe Pain**

- Opioids may be required initially for severe pain or when milder analgesics have failed.
- **Morphine** is the drug of choice – **Panadeine/ Codeine/ Tramadol** should be discontinued but **Paracetamol +/- NSAID** should be continued.
- **Morphine** is available in two formulations – normal release (**Morphine Elixir** or **Sevredol™**) for dose titration and breakthrough pain and controlled release (**m-Eslon™** or **LA Morph™**) for maintenance treatment.
- Methadone, Oxycodone and Transdermal Fentanyl (Durogesic™) are alternative strong opioids that are available for use in palliative patients under specific circumstances. Further information on these drugs is found later in this chapter.
- The funding status of these long acting preparations may alter and patients should be prescribed the one which is fully funded if possible. Check with a pharmacist if unsure.

[Contents](#) 

1.2.1 Anticipate and Warn Against Side Effects

- Opioids may cause drowsiness / sedation, urinary retention, confusion and rashes but the commonest side effects are **constipation** and **nausea**.
- Warn against side effect of drowsiness – this generally diminishes over a few days.
- If there is a past history of nausea and vomiting or if the patient is concerned about their symptoms, anti-emetics should be charted regularly – nausea usually subsides after 3-4 days and often the antiemetic can be discontinued. **Nausea and Vomiting**.
- Avoid **Ondansetron**
- Chart regular laxatives (softener AND stimulant) e.g. **Laxsol™** - If ineffective, **Movicol™** 2 sachets nocte. (**caution**: a special authority number is required for **Movicol™** .)
- Lactulose is usually not well tolerated.
- Patients should be cautioned about driving during dose stabilisation especially if drowsy. Patients on stable doses are normally safe to drive.
- Drug addiction is NOT a concern in acute, severe pain or in those with chronic /persistent cancer pain – patients who improve after anticancer treatment are often able to stop or reduce their Morphine.

Information regarding titration of Morphine follows.

Note: Please read ALL of this section prior to prescribing.

1.3 Morphine

1.3.1 Immediate Release Morphine

The secret of opioid prescription is regular review. The starting dose of morphine can be small and titrated upwards rapidly. A reasonable starting dose is 5mg every 4 hours but in acute situations the initial dose can be repeated every hour for three more doses, then reviewed. Consider contacting the palliative care team for advice.

- **Morphine Elixir**: varying concentrations 1mg/ml, 2mg/ml, 5mg/ml, 10mg/ml.
- **Sevredol™** (10mg and 20mg tabs only) is a useful alternative if the taste of **Morphine Elixir** prevents usage.
- During dose titration, assess how effective each dose is and for how long analgesia lasts.
- The elderly and those with renal impairment require CAUTION during dose titration, as Morphine metabolites will accumulate – 6-8hourly dosing may be necessary and dose increases

[Contents](#) 

- must be made more slowly to avoid developing narcosis or confusion. In patients with renal impairment other analgesics should be considered.
- If toxicity develops e.g. excessive sedation, delay the next dose and reduce the amount by 25-50% – **do not stop** and **avoid Naloxone if possible**.
- Once analgesia is achieved, change to a controlled release preparation (total 24 hour dose divided by 2 e.g. 120mg Morphine over 24 = 60mg m-Eslon™ bd) with an appropriate dose of rapid release Morphine for breakthrough pain. When on controlled release Morphine, breakthrough dose of **Morphine Elixir** or **Sevredol™** should be approximately **20%** of the total daily dose. This can be repeated every hour for three more doses, then needs to be reviewed.
- When using **Morphine Elixir** avoid volumes > 10ml if possible (increase strength instead).

1.3.2 Slow release Morphine Sulphate

M-Eslon™ long acting capsules

- Available in the following strengths, 10mg, 30mg, 60mg, 100mg, 200mg.
- Give 12 hourly PO. (This can be used 8 hourly if required.)
- Capsules can be swallowed whole or the contents sprinkled on food. **Do not** chew/crush.
- DO NOT use rectally.
- Not useful for acute pain because of slow onset of action and should **not** be used for dose titration.

LA Morph™ long acting tablets

Available in the following strengths, 10mg, 30mg, 60mg, 100mg.

- Give 12 hourly PO. (This can be used 8 hourly if required.)
- **Do not** chew/crush.
- DO NOT use rectally.
- Not useful for acute pain because of slow onset of action and should **not** be used for dose titration.

1.3.3 Subcutaneous Morphine

Note: *Subcutaneous Morphine is approximately twice as potent as oral.*

[Contents](#) 

- For acute pain a subcut injection can be given.

Subcut Morphine injections are more comfortable and acceptable than intramuscular.

- If a patient is intolerant of oral Morphine, titration is best achieved with regular 4hourly subcut Morphine.
- The method of dose titration is identical to that outlined in the section on **Morphine Elixir**.
- An adequate dose will usually last for 4 hours (like **Morphine Elixir**).
- If analgesia is achieved on 15mg 4hourly of subcut Morphine (i.e. 90mg/24hours) this is equivalent to 180mg oral Morphine/24hours – **the reverse must be taken into account when converting from oral to subcut Morphine**.
- Subcut Morphine is the route of choice in severe pain.

1.3.3 Subcutaneous Morphine Infusions

- It is necessary to estimate the expected 24 hour dose of Morphine at the time of prescription when using an infusion – **this is easiest and safest if the patient has previously been on oral Morphine or has been titrated on subcut Morphine**.
- Boluses of subcut Morphine are often more effective for acute severe pain than commencing an infusion– aim to change to an infusion as soon as the appropriate Morphine dose is known.
- Infusions can be delivered via a battery operated syringe driver e.g. **Graseby Pump** (small size, portable, fixed rate of delivery)
- Subcut bolus or oral Morphine **must always** be available for breakthrough pain.
- If regular breakthrough doses are needed the infusion dose should be reviewed.
- Morphine is often mixed with other medications e.g. anti-emetics and sedatives – **see Compatibilities Chart – Appendix A**. Seek advice if prescribing more than **three** medications (including morphine) in an infusion.
- Seek advice from Palliative Care Physicians if unfamiliar with subcutaneous infusions or complex prescribing required

1.3.5 IV Morphine Infusions

- These are rarely indicated.
- IV Morphine is approximately 3 times more potent than oral – patients must be monitored closely on IV infusions.
- When charting an infusion you must ensure that additional bolus doses are available for breakthrough pain.

1.3.6 Intraspinal Morphine (Epidural /Intrathecal)

This intervention is performed and co-ordinated by the Pain Service **in consultation with the Palliative Care Service.**

Morphine is often combined with a local anaesthetic +/- clonidine.

1.4 Other Opioids

1.4.1 Methadone

This drug has a place in pain management in specific circumstances. **Methadone is difficult to use due to its long and variable half-life and a referral to or discussion with the Palliative Care Service is strongly recommended.**

Indications for use;

- Renal impairment.
- Morphine allergy (rare).
- Unacceptable side effects with Morphine.
- Evidence of Morphine tolerance.
- Pain management in patients already on Methadone for drug addiction.

[See Methadone Guidelines](#)

1.4.2 Fentanyl

This drug is available in New Zealand on special authority for **stable** pain in patients with '**terminal illness**' in the transdermal form (**Durogesic™** patches). IV or subcut fentanyl may occasionally be used under supervision of the Acute Pain Team or Palliative Care Team. See pharmac website <http://www.pharmac.co.nz> or check with the hospital pharmacist (relevant specialist only).

If considering using fentanyl, **a Palliative Care referral is required.**

Indications for use include;

- Renal impairment.
- Uncontrolled nausea/vomiting or inability to swallow.
- Unacceptable side effects with Morphine.
- Evidence of Morphine tolerance.

[Contents](#) 

1.4.3 Oxycodone

This is available in four formulations: normal release capsules (Oxynorm™), controlled release tablets (Oxycontin™), Oxynorm Liquid (5mg/5ml) and Oxynorm® injection (10mg/1ml & 20mg/2ml)

Oxynorm™ (capsule) is available in the following strengths: 5mg, 10mg

Oxycontin™ (tablet) is available in the following strengths: 10mg, 20mg, 40mg, 80mg and is taken 12 hourly.

The dose should be titrated in the same way as Morphine.

Usual starting dose is 5mg 4hourly (Oxynorm™).

It should be used with caution in renal impairment.

Oxycodone is similar to morphine in its action and has a similar side effect profile.

10mg oral oxycodone = 20mg oral morphine

Oxycodone capsules **MUST** be swallowed whole and are **not** to be broken, chewed or crushed.

Not to be given rectally.

The main indications for use at present are:

- Morphine allergy (rare).
- Persistent hallucinations or other signs of morphine neurotoxicity
- Evidence of Morphine tolerance.

This drug is considerably more expensive than morphine. Morphine therefore remains the drug of first choice.

1.4.4 Pethidine

Pethidine has a therapeutic ceiling related to CNS toxicity (e.g. agitation, tremors, myoclonus and seizures) and **SHOULD NOT** be used in chronic cancer-related pain.

1.4.5 Rarely-used Opioids

Pentazocine, and **Buprenorphine (Temgesic™)** are inferior to Morphine and should **NOT** be used.

Hydromorphone is not available in New Zealand.

[Contents](#) 

1.5 *Prescribing of Opioids*

- Prescriptions for **Morphine SR, Morphine Elixir, Sevredol** and **other opioids** must be in triplicate on the Ministry of Health CONTROLLED DRUG PRESCRIPTION FORM (H572).
- They must be written legibly and indelibly in the practitioner's own handwriting. (**DO NOT** use hospital stickers)
- They must be dated and include the full physical address (e.g. PO Box not acceptable).
- The maximum supply available is 10 days with 2 repeats. (30 days)
- Elixirs can be prescribed in varying strengths (e.g. 1mg/ml, 5mg/ml etc). **NB** You must document the strength used.
- The strength, dose and frequencies must be stated (PRN is inadequate).
- The total quantity requested and the dose prescribed must be written in words and numbers.

Sample Script.

[Contents](#) 

2. Co-Analgesics

2.1 *Corticosteroids*

Dexamethasone and prednisone are the medications of choice

These are particularly useful for pain related to:

- raised intracranial pressure and extra- dural spinal cord compression
- tumour compression or invasion of the brachial or lumbosacral plexus, nerve roots or individual peripheral nerves
- capsular stretching by liver metastases
- soft tissue infiltration, e.g. head and neck, abdomen and pelvis
- vena caval obstruction and lymphoedema

It is advisable to use a high dose initially in order to gain symptomatic benefit as soon as possible e.g. **dexamethasone** 8 – 16mg daily po or subcut infusion

This can be given as a 5 -10 day trial and then stopped if not effective (if continued longer the dose must be tapered not stopped immediately)

If effective the dose should be reduced as low as possible to minimise side effects –beware for hyperglycaemia – **regular review is essential**

2.2 *NSAIDs*

These may be a useful addition in bone pain or when anti-inflammatory effect is desirable.

Diclofenac is also available as a suppository. See Chapter 1.

Caution is required when used.

2.3 *Tricyclic Antidepressants*

These may modify neuropathic pain and help patients with pain and insomnia
Especially useful for “burning”/ dysaesthetic pain

The most commonly used is **amitriptyline** – we would normally use and maintain a low dose of 10-20mg daily

Side effects include drowsiness, dry mouth, blurred vision, constipation and postural hypotension.
Risk of hyponatraemia in the elderly.

Nortriptyline 10-25mg/day is a more preferable TCA particularly in the elderly patient

[Contents](#) 

2.4 Anticonvulsants

	Usual starting dose	Increase by	Usual effective dose
Sodium Valproate	200mg/day	200mg every 3d	400 – 1000mg/day
Gabapentin	300mg/day	300mg every 3d	900 – 3600mg/day
Clonazepam	0.5mg/nocte	0.5mg every 3d	2 – 4 mg/day

These are generally recommended for neuropathic pain secondary to tumour infiltration, post-herpetic neuralgia and phantom limb pain.

Especially useful for “shooting” and “electric shock-like” pain

Gabapentin (Neurontin™) is available via special authority with specific restrictions.

See pharmac website <http://www.pharmac.co.nz> or check with the hospital pharmacist.

Currently restricted to patients who have failed, or are unable, to tolerate treatment with tricyclics and first line anticonvulsants.

Available in 100mg, 300mg and 400mg capsules.

Caution in renal impairment as requires dose reduction.

Note: A Palliative Care Referral is recommended prior to commencing gabapentin.

2.5 Ketamine

A unique analgesic for increasing pain despite escalating doses of strong opioids.

Bolus doses of 10 – 20mg subcut (or IV) followed by a subcutaneous infusion is generally recommended (100 – 600mg/24hours)

The morphine dose is generally reduced on starting ketamine

Special indications seem to be severe neuropathic pain and ischemia.

Funding should be obtained under “Hospital exceptional circumstances” prior to the patients discharge from hospital.

Note: A Palliative Care Referral is **essential**.

[Contents](#) 

2.6 Benzodiazepines

These may help with pain secondary to muscle spasm and can modify pain in anxious patients.

A sedative can be a useful adjunctive analgesic

Clonazepam appears to have independent efficacy in neuropathic pain.

Clonazepam 0.5mg PO/subcut Q6H or as a subcut infusion (1 – 4mg/ 24hours).

NB: This is an unlicensed route of administration but is widely used internationally.

Can be used sublingually via drops 0.1mg/drop (1-5 drops in a six hour period).

Other Alternatives

Diazepam 2-5mg PO tds

Lorazepam 0.5-2.5mg PO tds

Subcut **Flunitrazepam** infusion (Section 29 'unlicensed medication) – at **low** dose it does not necessarily induce sedation (4 – 8mg/24 hours) – **a Palliative Care Referral is recommended**

2.7 Baclofen

May help pain secondary to muscle spasm

***Note:** A referral to Palliative Care is strongly recommended.*

2.8 Neuroleptics

***Note:** A referral to Palliative Care is strongly recommended.*

2.9 Bisphosphonates

Pamidronate or **Zoledronic Acid (Zometa™)** are routinely used for hypercalcaemia associated with cancer and is increasingly used regularly as a prophylactic treatment in patients with Multiple Myeloma and Breast Cancer to reduce the risk of pain, fracture and other skeletal events

For patients with metastatic bone disease, the use of 90mg of pamidronate IV over 2-4 hours may improve acute bone pain (**check first with an Oncologist/ Palliative Care Specialist**)

[Contents](#) 

2.10 Calcitonin

This medication has not been part of our co-analgesic list

2.11 Referral to Other Services

Radiotherapy

External Beam Radiotherapy has a vital role for the treatment of local symptoms (including pain) due to the effects of tumour at a specific site

It is clearly the best treatment for localised metastatic bone pain (sometimes in conjunction with or following surgery)

Hemibody Radiotherapy and the bone-seeking radioactive isotope, Strontium 89, are alternative approaches in widespread disease.

Chronic Pain Service

The Pain Service provides additional Specialist support when invasive techniques such as neuraxial infusions, myofascial local anaesthetic injections and chemical blocks are indicated

Note: *It is preferred that the Palliative Care Service is consulted first.*

[Contents](#) 

3. Nausea and Vomiting

Chart antiemetics regularly.

Combinations are often required.

Consider the underlying cause(s) which may include;

- Hypercalcaemia, uraemia.
- Drugs – antibiotics, opioids, cytotoxics.
- Hepatomegaly, gastric stasis, constipation, intestinal obstruction.
- Abdominal radiotherapy.
- Raised intracranial pressure, vestibular syndromes.
- Fear and anxiety.

Investigate and treat cause(s) if possible.

Consider the mechanisms of action of the individual antiemetics.

Review if unresponsive to standard therapy – consider unrecognised physical causes or psychological distress.

The following sections contain examples of agents commonly used.

3.1 *First-line Antiemetics*

3.1.1 Metoclopramide

Upper GI prokinetic plus weak central effects via dopamine receptors.

Indicated for GI gastroparesis and functional bowel obstruction (commonly caused by opioids) and for GORD.

10-20mg tds/qid PO or subcut (or IV 4-6 hourly).

Important to give A/C – 20-30 minutes before meals.

Contraindicated in **complete** proximal bowel obstruction and Parkinsons Disease.

Watch for agitation, particularly higher doses and in young women.

[Contents](#) 

3.1.2 Haloperidol

Dopamine (D₂) Receptor Antagonist.

A potent centrally acting antiemetic – VERY useful for opioid induced nausea and vomiting, hypercalcaemia and renal failure.

1.5 - 3mg nocte PO.

Can be given as a subcut bolus (0.5-1mg Q8H) or infusion (1-5mg/ 24hrs).

Available in 0.5mg and 1.5mg tabs.

If concerned about side effects start at 0.5mg 6- 8 hourly PRN.

Contraindicated in Parkinsons Disease

3.1.3 Cyclizine

Antihistaminic, antimuscarinic

Indicated for motion sickness, pharyngeal stimulation, mechanical bowel obstruction and raised intracranial pressure.

25-50mg tds PO.

Can be given as a subcut infusion (NOT bolus injection as this can cause severe skin irritation and abscess formation) - 50-150mg = total daily dose.

If concerned about sedation, start at 25mg bd.

Note: *Cyclizine tablets incur a part charge at community pharmacies but if used in “terminal care”, a special authority number can be applied for. Forms available from your pharmacist or see pharmac website: <http://www.pharmac.co.nz>*

[Contents](#) 

3.2 Second-line Antiemetics

3.2.1 Domperidone

Upper GI prokinetic – low side effect profile - no significant central effects.

10 - 20mg qid PO A/C.

No parenteral or rectal preparation.

Note: Domperidone tablets incur a part charge at community pharmacies but if used in “terminal care” a special authority number can be applied for. Forms available from your pharmacist or see pharmac website :<http://www.pharmac.co.nz>

3.2.2 Methotrimeprazine (Levomepromazine)

Known as **Nozinan™**

Phenothiazine anti-psychotic used for management of nausea (acting at multiple receptor sites) and can also be useful for pain and terminal restlessness.

Starting dose = 6.25mg – 12.5mg PO/subcut nocte – lower doses may be effective also.

Can either be given once daily at night or up to TDS depending on response or alternatively as a subcut infusion. (Doses above 50mg/24hours are unusual)

Postural hypotension and drowsiness occur commonly and are increasingly likely at higher doses.

3.2.3 Dexamethasone

Centrally acting antiemetic.

2 - 4mg daily PO or subcut. (higher doses may be used e.g. vomiting associated with raised intracranial pressure.).

Especially useful in liver metastases and raised intracranial pressure.

3.2.4 Prochlorperazine

Phenothiazine with antiemetic properties.

5-10mg PO tds - must NOT be given subcut.

3mg buccal tabs are usually ineffective.

The rectal route (25mg suppositories up to 8hrly) is valuable on occasions but requires a special authority application.

Overall has LIMITED use in palliative care and there is good evidence that Haloperidol is more effective with less side-effects.

[Contents](#) 

3.2.5 Hyoscine (Scopoderm TTS™)

Rarely used in palliative care.

Marked antimuscarinic effects.

Should NOT be used concurrently with metoclopramide.

Apply patch to skin every 3 days (check availability).

Note: *Scopoderm TTS™ patches incur a part charge at community pharmacies but if used in “terminal care”, a special authority number can be applied for. Forms available from your pharmacist or see pharmac website: <http://www.pharmac.co.nz>*

3.2.6 Lorazepam

Benzodiazepine effective for nausea exacerbated by fear/anxiety.

The sedative side effect may often be helpful.

0.5mg – 1mg tds PO.

3.2.7 Ondansetron

The serotonin (5HT₃) antagonists, e.g. ondansetron have proven benefit in chemotherapy and radiation induced emesis BUT are not generally prescribed in the treatment of vomiting in Palliative Care patients due to low efficacy, limited availability and high cost.

Causes constipation.

[Contents](#) 

4. Constipation

Constipation is common in advanced disease and can cause many distressing symptoms – colicky abdominal pain, anorexia, nausea, vomiting, urinary retention, anxiety and in some elderly patients may cause confusion.

Prevention is the key, and the need to treat constipation is usually due to a failure of prevention.

It should be anticipated when patients are taking opioids or anticholinergic drugs and it is imperative in these patients to prescribe prophylactic laxatives. *“The hand that charts the morphine, charts the laxatives”*.

Don't forget to discuss dietary and fluid management

A rectal examination is recommended on all patients with constipation to decide on appropriate treatment required.

4.1 Laxatives

1. Stimulant/Softener Combinations

Commonly used in Palliative Care **Laxsol**[™] 1-2 tabs bd. (can be increased up to 3 TDS)

2. Iso-osmotic Laxative

Movicol[™] (macrogol and electrolytes) 2 sachet dissolved in 250 mls of water once daily. Particularly useful for faecal impaction – can be increased to 2-3 sachets daily if needed. This requires a specialist subsidy application.

Lactulose – **NOT** recommended for palliative care patients as large quantities of oral fluid needed and can cause severe bloating and flatulence.

Other medications used include Coloxyl (softener) and bisacodyl (stimulant).

Note:

- Stimulants are contraindicated for patients with **complete** bowel obstruction.
- Assess bowel action daily and adjust laxatives accordingly.
- Bulking agents and high fibre diets are not well tolerated by terminally ill patients.

[Contents](#) 

4.2 Enemas

These will not often be required if a good bowel regime has been started.

A rectal examination should be carried out on all patients to decide on appropriate treatment required.

Use suppositories or microlax first (1- 2 bisacodyl and if very hard 1-2 glycerine). If these are ineffective then try an oil retention enema, left overnight if possible.

A **Fleet™** enema (sodium phosphate) is useful once or twice but prolonged use may cause electrolyte imbalance. Care needs to be taken in administration – do not apply too much pressure.

Constipation can be an extremely distressing symptom. Please seek advice from Palliative Care service if it remains unresolved.

4.3 Severe Constipation

Movicol™ first line – see above. Can use up to 4-8 sachets /day for severe faecal impaction.

Oral **Fleet™** may be required - can cause abdominal cramping and severe diarrhoea and is unpleasant for the patient to take. Start with 5 – 15mls and repeat or increase as appropriate.

Should not be used repeatedly due to risk of electrolyte imbalance (maximum of once a week is the recommended dose in conjunction with serum electrolyte monitoring)

Manual removal may be required

Seek advice from Palliative Care service.

[Contents](#) 

5. Intestinal Obstruction

Common complication of advanced abdominal or pelvic malignancy.

Frequently multi-factorial in origin.

Can occur at multiple sites especially in patients with peritoneal involvement.

Management depends on what is considered to be both possible and appropriate.

Surgical advice should always be considered.

Stage of illness, previous surgical findings, estimated prognosis and the wishes of the patient **MUST** be considered.

The clinical presentation and subsequent management depends on whether the obstruction is:

- Acute or Subacute
- Partial or Complete
- Low, High or Multiple

Causes

Mechanical e.g. cancer, constipation, radiotherapy or surgical stricture.

Paralytic e.g. autonomic nerve disruption (diffuse malignant disease in the retroperitoneum), drug effects (anticholinergics, opioids), post-operative, peritonitis, metabolic (uraemia), radiation fibrosis, vascular insufficiency.

5.1 General Considerations

In the palliative setting **IV fluids and nasogastric tubes are rarely required** and if surgery is clearly not appropriate or against the patient's wishes, an attempt should be made to palliate symptoms using **active** medical management.

Factors which suggest a **poor** outcome from surgery include; diffuse intraperitoneal carcinomatosis, severe ascites, previous abdominal or pelvic radiotherapy, palpable abdominal masses, liver or other distant metastases, low serum albumin and multiple levels of obstruction.

The aim of medical treatment is to minimise symptoms of pain, colic, nausea and vomiting, to provide freedom from medical technology and “tubes” if possible and to facilitate discharge home if that is the wish of the patient and their family.

[Contents](#) 

IV fluids are sometimes required initially if the patient is very dehydrated but will usually be withdrawn even if the bowel obstruction does not resolve. Intermittent subcutaneous fluids may be appropriate. Continuation of “maintenance” fluids can make nausea and vomiting harder to control.

Patients should be allowed to take oral fluids and food as tolerated.

Patients with recurrent bowel obstructions can be managed in the community without admission using subcutaneous infusions and palliative care nursing input.

5.2 *Medical Management*

[See Medical management of Bowel Obstruction.](#)

[Contents](#) 

6. Dyspnoea

- Check for reversible causes (e.g. LVF, COAD, asthma, pleural or pericardial effusion, mechanical airway obstruction etc).
- Saline nebulisers can help with tenacious sputum.
- A fan can be helpful in providing a flow of air.
- If indicated a bronchodilator may be useful.
- Rationalize activities..
- Physiotherapy, occupational therapy, counselling, relaxation and music therapy all have a role in the management of dyspnoea

6.1 *Morphine*

Morphine is very useful in the management of dyspnoea.

Usually lower doses are required than those for pain e.g. 2.5 - 10mg of elixir 4 hourly or PRN. The dose can be gradually titrated as for pain but comfort rather than resolution of dyspnoea is generally the desired end point.

If a trial of elixir has proved helpful a low dose of M-Eslon™ or low dose morphine infusion may be more convenient however, patients may choose to remain on regular elixir.

Nebulised morphine has NO demonstrable advantage over morphine elixir.

6.2 *Benzodiazepines*

Clonazepam oral drops 2.5mg/ml (1 drop = 0.1mg) 1-3 drops 4-6 hourly PRN.

Lorazepam 0.5 - 1mg PO 4 - 6 hourly.

Midazolam 10 – 20mg/24hours via subcut infusion.

Sedation is sometimes needed and morphine plus a benzodiazepine via subcut infusion is recommended.

[Contents](#) 

6.3 Steroids

Recommended for bronchial obstruction, superior vena cava obstruction (SVCO), radiation pneumonitis and lymphangitis carcinomatosa.

Therapeutic trial (5days) can sometimes be worthwhile if cause unclear.

Either prednisone 20-40mg mane or dexamethasone 8-12mg mane –depending on cause and then aim to reduce gradually to lowest effective dose.

6.4 Oxygen

The use of oxygen is only indicated if O₂ saturation levels are <88%and are responsive to O₂ therapy. To obtain O₂ a special request needs to be sent to the respiratory department.

[Contents](#) 

7. Cough

Cough is a common symptom of primary and metastatic lung cancer and lymphangitis and can be stimulated by reflux oesophagitis.

When patients are exhausted and no longer able to clear sputum it may be appropriate to suppress the cough.

Antibiotics may be a useful palliative treatment for a clearly identifiable bacterial infection. Reversible airways obstruction should be identified.

7.1 Dry Cough

Nebulised saline.

Pholcodine linctus (**Duro-tuss™**) – this is an antitussive and does NOT contain codeine phosphate. Dose: 10-15mls up to four times daily.

Morphine or methadone elixir – low dose regularly or PRN.

Steroids – either prednisone 20-40mg mane or dexamethasone 4mg mane – aim to reduce gradually to lowest effective dose.

7.2 Productive Cough

Physiotherapy.

Ipratropium (**Atrovent™**) or **Combivent™** nebulisers.

Saline nebulisers may be useful in breaking down viscid secretions.

Buscopan 20mg subcut q3-4hrly (to dry secretions).

Oral steroids if bronchoconstriction is suspected.

Trial of antibiotics may be appropriate if infection suspected.

Consider sputum – infection

- bronchorrea
- haemoptysis

[Contents](#) 

8. Respiratory Tract Secretions

- Can be a problem in advanced respiratory disease, head and neck cancers and neuro-degenerative disorders.
- In people who are dying, this may be part of the terminal process known as “Death Rattle”.
- Explanation and reassurance for the patient and family is essential.
- Suctioning should be avoided.
- Re-positioning is often helpful .
- Attention to oral hygiene is essential – see chapter 10.

Drug therapy may be indicated but drying of secretions is not always the most appropriate initial management.

When considering the appropriate drug therapy, note the following:

- Buscopan does not cross the blood-brain barrier and therefore causes less sedation and confusion than Hyoscine hydrobromide and Scopoderm TTS™.
- Atropine is excitatory and should be **avoided** unless the prescriber is familiar with the use of Atropine eye drops given sub lingually.

8.1.1 Hyoscine butylbromide (Buscopan™)

- 20-40mg subcut 2-4 hourly.
- 60 -120mg/ 24 hours subcut infusion.
- Better tolerated in the unconscious or semi-conscious patient.

8.1.2 Motor Neurone Disease

The following may be considered specifically for Bulbar Disease

- Amitriptylline 10mg OD
- Scopaderm
- Botox
- Radiotherapy

[Contents](#) 

9. Hiccoughs

9.1 Causes

- Metabolic disease e.g. uraemia.
- Vagus nerve stimulation e.g. thoracic and/or abdominal disease.
- Neurological e.g. brain stem infarct, encephalitis, medullary infarct.

9.2 Management

- Pharyngeal stimulation with iced water, saline nebuliser.
- Metoclopramide or domperidone tds/qid for delayed gastric emptying.
- Trial of steroids if hepatomegaly is present.
- Haloperidol 0.5mg-1.5mg nocte/bd.
- Clonazepam 0.25-1mg nocte.
- Nifedipine 10mg tds.
- Baclofen – useful prophylactically in refractory cases – 5mg tds – sedation and nausea are side effects.
- Sometimes sedation with Chlorpromazine or midazolam is needed.

[Contents](#) 

10. Dry Mouth

- This is a common symptom causing significant morbidity and distress.
- It is a side effect of commonly used drugs (antidepressants, anticholinergics, morphine etc) and radiotherapy to the head and neck.
- Oral candida must be excluded and if present treated with nystatin oral suspension, **Mycostatin™** or miconazole gel. Parenteral antifungals e.g. fluconazole may be necessary for severe cases or when oesophageal candida is suspected.
- Attention to mouth cares and moistening is very important especially in the terminal phase when oral intake is reduced – this includes ice to suck, sips of water and swabs moistened with water applied to mouth and lips.
- Lemon and Glycerine swabs should **NOT** be used as the acidity causes mouth problems after short periods of use. **USE** jumbo swabs moistened with fluids as desired by patient.
- Saliva Substitutes are available but are of limited value.

10.1. Oral Care

- Soda Bic mouthwashes qid are often effective (1tsp Baking Soda dissolved in water) or soda Bic impregnated mouth swabs.
- Diluted **Diffiam™** mouthwashes to assist with oral hygiene.
- Soda Bic and water may be helpful for a severely coated tongue.
- Brush tongue gently with a soft toothbrush.
- Remember to sterilize dentures.

[Link to Oral Hygiene Policy](#)

[Contents](#) 

11. Sweating

Exclude infection and treat if appropriate.

A common symptom of some active cancers e.g. lymphoma.

Can accompany metastatic disease e.g. liver metastases, carcinoid.

Pain and fear can exacerbate the problem.

Drugs can be the cause e.g. tricyclic antidepressants, alcohol.

Some relief can be gained with the following :

- Steroids e.g. prednisone 40-60mg/ day.
- NSAIDs e.g. diclofenac SR 100mg nocte, naproxen 250-500mg bd.
- Cimetidine 400mg nocte or bd.
- Thalidomide – restricted prescribing. [Suggest Palliative Care Service Referral.](#)

[Contents](#) 

12. Itch/ Pruritis

12.1 Causes include:

- Drug allergy.
- Hepatic Disease (Obstructive Jaundice).
- Uraemia.
- Active Lymphoma especially Non Hodgkins Lymphoma.
- Drugs e.g. vasodilators, opioids.

12.2 Management

- Treat/ remove cause(s).
- Night sedation may be helpful.
- Apply topical agents e.g. D.P.Lotion (no part-charge on prescription), Alpha-Keri™ lotion, aqueous cream.
- Use emulsifying ointment or Pinetarsol instead of soap.
- Oily creams – some patients may find helpful (keeping the skin moist is most important).
- Biliary stenting may be the most effective management if appropriate.

12.3 Consider drug treatment

- Anti-histamines e.g. promethazine HCl 10-25mg nocte or a non-sedating alternative for daytime use.
- Cholestyramine (Questran Light™) ½ - 1 sachet bd/ tds for obstructive jaundice.
- H₂ Antagonist (acting via histamine receptors in the skin) e.g. Cimetidine 400mg bd.
- Steroids – particularly for lymphoma or other active malignancies.
- Low dose Paroxetine (5mg) – beware of nausea.

- Rifampicin for chronic cholestasis.
 - NSAIDs e.g. diclofenac.
 - Ondansetron has been reported to be helpful (beware of cost and constipation.)
-

13. Agitation

A normal anxiety reaction.

Attempt to identify and reverse causes.

Exclude acute delirium or treat as per chapter 14.

Manage any symptoms of acute anxiety.

Spiritual, social and religious issues require a multi-disciplinary approach.

Precipitants such as fear (requiring explanation and reassurance or the presence of a relative) or unrelieved physical symptoms must be addressed e.g. constipation, urinary retention, and alcohol or nicotine withdrawal.

An antidepressant may need to be considered.

Treatment with benzodiazepines may be necessary:

- Clonazepam 0.25 – 1mg nocte – tabs or oral drops 0.1mg/drop (1-5 drops in any 6 hour period).
- Midazolam by subcut bolus 2-5mg 2-4 hourly or via subcut infusion starting at 10mg per 24 hours.
- Lorazepam 0.5 - 2mg PO/SL, 4 - 6 hourly.
- Diazepam 2 - 10mg PO or PR, 8 - 12 hourly.

Sedation may occasionally be indicated in the terminally ill when agitation or extreme fear is unrelieved – a referral to the Palliative Care Service is strongly recommended.

[Contents](#) 

14. Delirium

Delirium is a global disorder of **cognition** and **attention** with disorientation and often visual hallucinations.

There can be increased OR decreased psychomotor activity, altered sleep-wake cycle and **fluctuating** impairment of consciousness.

Often rapid onset and fluctuating course over the day.

There is a HIGH mortality rate in Palliative Care patients and delirium is often part of the terminal process.

It is essential to differentiate between delirium, dementia and restlessness.

14.2 Causes

- Unfamiliar excessive stimuli/ Change of environment.
- Pain/ Fatigue/ Pressure areas.
- Anxiety/Depression.
- Organ Failure e.g. Hepatic, Renal.
- Brain Metastases/ Leptomeningeal Disease.
- Hypercalcaemia/ Dehydration/ Biochemical Abnormality.
- Infection/ Sepsis.
- Drug toxicity e.g. amitriptyline, opioids, steroids.
- Urinary retention/ faecal impaction/ Constipation.
- Drug, Alcohol or Nicotine withdrawal.
- Hypoxia

[Contents](#) 

14.2 Management

Explanation to patient and family as to the nature of the problem and all that is being undertaken is vital.

Patients describe the “experience” of delirium as extremely distressing

Minimise staff changes and encourage the presence of family members where possible. Ensure a calm environment with frequent re-orientating measures.

Investigate and treat underlying cause(s).

CT Brain is rarely indicated in the first instance.

Remove or reduce drugs with known CNS effects if clinically appropriate.

Sedation with benzodiazepines should be AVOIDED initially as they often exacerbate the condition.

If the patient is symptomatic (nocturnal confusion, agitation, aggression, hallucinations, paranoia etc) and where there are no **immediately** reversible causes the best treatment is **HALOPERIDOL**

- Haloperidol 2.5mg subcut stat and repeat after 30 minutes if necessary - this dose can then be doubled after a further 30 minutes if the patient is not settled.
- Large doses may be required (10-20mg/24hours subcut) to achieve a response.
- Aim for a regular bd dose or a continuous subcut infusion

Note: *In severe or complicated cases, an urgent referral to Palliative Care Service is recommended.*

[For Guidelines on Delirium and Confusion](#)

[Contents](#) 

15. Care of the Imminently Dying

A diagnosis of dying is very important because it influences medical decision making. When a patient is diagnosed as dying, patient comfort takes priority and increased support for family is needed.

- Drug regimes **must be** simplified.
- Active intervention such as IV fluids, blood transfusions, tests and investigations etc need to be discontinued after discussion with the patient and family.
- Symptom control is the main priority.
- Terminal restlessness is common and needs careful management – see below.
- Maintenance of comfort and dignity are paramount with quality of life being the goal of care.

Symptom Management

When the patient reaches the terminal phase their ability to swallow medication is lessened – subcut administration of medication will therefore be necessary.

- See relevant chapters for prescribing guidelines including chapter on subcutaneous administration. (Chapter 16)
- The patient's symptom's need to be continuously assessed by all staff and documented fully in patient's notes.
- Listen to the relatives.
- To help with management of this phase a phone consultation with the Palliative Care Service may be valuable.

15.1 Excessive Airway Secretions (*Death Rattle*)

See also Excessive Secretions (see page 26).

Relatives who witness this can find it quite alarming and careful reassurance is essential.

Some alleviation of this state can be achieved by using anticholinergic medications.

[Contents](#) 

15.2 Terminal Agitation

See also Agitation (see page 33) and Delirium (see page 34).

This is also referred to as 'Terminal Restlessness' and may require 'Palliative Sedation'.

Management

Agitation, impaired consciousness, distressed vocalising, muscle twitching, myoclonus, convulsions may all be signs of terminal agitation

- Exclude fear, anxiety, pain, impaction, urinary retention, drug, alcohol or nicotine withdrawal as possible causes
- Opioids can aggravate the problem or be the underlying cause – consider dose reduction
- Generally need to treat with sedation

"Terminal Agitation" may occasionally require complete sedation - the following drugs, administered parenterally, can be considered – refer to Agitation (see page 33) for prescribing guidelines.

- Clonazepam
- Midazolam
- Methotrimeprazine (Nozinan™) – sedation is a side effect of this drug which may be helpful if benzodiazepines are contraindicated or proving ineffective or if it is already being utilised effectively for nausea and/or pain

Newer agents such as olanzapine and risperidone have been found to be useful particularly if extrapyramidal side effects are encountered but these are only available orally

Note: *If severe and distressing symptoms a referral to the palliative care team is strongly recommended.*

[Contents](#) 

16. Subcutaneous Administration of Medications

If oral medication is not tolerated, **consider** regular or intermittent subcut injections (via **Saf-t-intima™**) or a subcut infusion.

Indications

- Severe nausea and/or vomiting.
- Dysphagia.
- Severe oral lesions.
- Unconscious or sedated patient.
- Non-absorption of oral drugs.
- Uncontrolled symptoms with oral medications.

Doses – as per individual drug profiles.

[Link to hospital policy on subcutaneous infusions](#)

16.1 Subcutaneous Bolus Medications

See also Prescribing of Opioids (see page 12).

While titrating medications subcut boluses may be prescribed prn.

These should be given via the side port of the **Saf-t-intima™**.

Boluses being given as breakthrough medications while a pump is running can be given slowly via the side port of the **Saf-t-intima™**. **Do not flush before or after** the bolus. The pump does not need to be stopped while the bolus is given.

If intermittent boluses are being given via **Saf-t-intima™** where no infusion is running, a flush of **0.3mls** of saline should follow the medications to ensure the entire drug enters the subcut space. If more than one drug is being given at the same time, one bolus following all medications is sufficient.

If patients have a continuous infusion running and are also requiring several intermittent boluses of medications (ie: more than 3-4 per day), it is preferable to have a butterfly inserted for the administration of breakthrough boluses – this allows more effective absorption of both the infusion and bolus medications.

[Contents](#) 

17. Guidelines for Referral to the Palliative Care Service

17.1 *Referral is appropriate when*

As a consequence of advanced/progressive disease, the patient has symptomatic or other needs (such as those outlined below) that require **Specialist** Palliative Care input.

- The patient has a range of symptoms relating to their illness including pain, nausea, vomiting, dyspnoea, constipation, anxiety, agitation etc that are proving difficult to manage.
- The patient/family/whanau have psychological, social, spiritual or religious concerns related to The illness.
- The patient/family/whanau need support and assistance following a diagnosis of recurrent disease, relapse or change in disease status.
- Staff member(s) require support in order to care effectively for a patient and their family/whanau.

Patients may still be receiving active treatment for their underlying disease process but the Palliative Care team can work alongside this to ensure that both symptomatic management and support is maximised.

17.2 *How the Palliative Care Team work*

- We provide a consultative service to all wards and areas across the WDHB.
- The “Team” consists of Consultant Physicians, Specialist Palliative Care Nurses and Registrar.
- We will assess the patient promptly and where possible inpatients will be seen on the day of referral.
- We give advice with planning for discharge and liaison with community services.
- We conduct Palliative Care clinics for both new referrals and follow-ups.

[Contents](#) 

17.3 Making a referral

A formal medical referral from the primary team is needed using a yellow consultation request form which must be **faxed to 8895**.

It is important that you discuss the referral with us as well as sending the fax as this assists us with prioritising.

We can be contacted during working hours on extension 8691 (Monday to Friday 0800-1630).

The patient must have knowledge of their disease and of the fact that a referral has been made to the Palliative Care Service **(please discuss where concerned)**.

We are happy to discuss any referrals you are unsure about and to give telephone advice if required- **Enquiries are always welcome**.

For problems “after hours”, please contact the Specialist on Call.

[Contents](#) 

Appendix D: References and Resources

References

Lipman A.G., Jackson K.C., Tyler L.S., 2000 **Evidence Based Symptom Control in Palliative Care** The Haworth Press USA

Twycross R., Wilcock A., Charlesworth S., Dickman A., 2003 **Palliative Care Formulary 2nd Edition** Radcliffe Medical Press UK

Watson M., Lucas C., Hoy A., Back I., 2005 **Oxford Handbook of Palliative Care** Oxford University Press, UK

Other Resources Available from the Palliative Care Service

Books and journals on symptom management, grief and loss.

Care of the Dying. – Booklet

What to expect when someone is dying – Leaflet

How to Cope with Bereavement - Leaflet

Patient information:

Palliative Care Service brochure

Graseby™ Syringe Driver

Note: *These guidelines are also available in electronic form on the Waikato Hospital intranet (under 'guidelines' or 'departments' - Palliative Care).*

Useful websites:

www.palliativedrugs.com

Authors

We would like to thank the following from Christchurch Hospital: The original authors of "The Palliative Guidelines"

Dr Kate Grundy

- Palliative Medicine Physician

Anne Morgan

- Palliative Care Nurse Consultant

Ruth Tramschek

- Oncology Pharmacist

[Contents](#) 