PALLIATIVE CARE CLINICAL GUIDELINES

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Calvary Health Care Kogarah

phn CENTRAL AND EASTERN SYDNEY
An Australian Government Initiative

This brief guideline to assist GPs with palliative care has been developed by Calvary Community Team and GPs/ Central and Eastern Sydney PHN. It reflects common palliative care practices in this Area. Palliative care providers in other areas are permitted to use freely but need to adapt to suit variations in practice in their areas. Major references used include Palliative Care Therapeutic Guidelines (etg.org.au) and The Palliative Care Handbook (Hammond Press). Another excellent reference for GPs is www.palliativecarebridge.com. Comments and for references contact Dr Alison Vickers Alison.vickers@optusnet.com.au

CLINICAL CONSIDERATION	PHARMACOTHERAPY
ANOREXIA/CACHEXIA • Reversible causes - pain, constipation, mouth condition, depression • Maintaining weight does not prolong life • Do not weigh the patient • Promote regular small meals on small plates, eating with family, avoiding strong smells	• **Protein supplements** (Sustagen, Prosure, Ensure) 1-2 per day • **Metoclopramide** (Maxolon) 10mg tds (not in Parkinson's disease) *OR* • **Domperidone** (Motilium) 10mg tds before meals **IF DEPRESSED CONSIDER:** • **Mirtazapine** (Avanza) 15-60mg at night **IF INDICATED FOR ANOTHER CAUSE:** • **Dexamethasone** 4mg mane may have a short term benefit **Exercise may be beneficial in early stages**
ANXIETY/AGITATION • Reversible causes - pain, hypoxia, urinary retention, constipation • Address fears, concerns • Patients tolerant to benzodiazepines need higher doses	**Lorazepam** (Ativan) 0.25-0.5mg (¼-1/2 of 1mg) tds orally or sublingually (maximum dose 1-2mg tds). For sublingual ensure mouth is moist **IF UNABLE TO SWALLOW:** • **Clonazepam** (Rivotril) 0.2 mg (2 drops of 2.5 mg/mL oral liquid) bd sublingually (0.1mg per drop)(Maximum dose 1mg bd) *OR* • **Midazolam** 2.5mg every 4 hours SC and titrate according to need (2.5-5mg 2 hourly prn). Likely to need syringe driver if ongoing agitation. (Preferably discuss these options with Calvary palliative care team/specialist)
BOWEL OBSTRUCTION • Reduced or absent flatus and motions, tinkling or absent bowel sounds, empty ballooned rectum • Common complication of GIT, gynae malignancies **Distinguish:** • **Low obstruction -** distension, nausea, cramping, faeculent vomiting, able to drink. • **High obstruction -** vomiting with little nausea, vomits after eating or drinking, undigested food vomiting. X-rays- limited gas and fluid levels • In some cases parenteral fluids, nasogastric suction, stenting and a venting gastrostomy for drainage may be indicated • All medications SC if not tolerating oral	• **STOP** senna, biscodyl, metoclopramide and domperidone if complete obstruction **FOR NAUSEA:** • **Haloperidol** (Serenace) 0.5 to 2.5 mg orally or SC, bd and titrate to effect or haloperidol 1 to 5 mg/24 hours by continuous SC infusion • **Cyclizine** or **Levomepromazine** May be helpful but need to be prescribed and supplied by Calvary palliative care Team. See end of page 4 for dosing guide. **FOR COLIC /PAIN:** • **Opioids** See pain section but use SC dosing as may not absorb oral • **Hyoscine butyl bromide** (Buscopan) 60-80 mg /24hrs (maximum dose is 120mg daily). Discuss with Calvary palliative care team/specialist first as may render obstruction irreversible. **TO REDUCE GASTRIC SECRETION:** • **Ranitidine** (Zantac) 300mg orally daily or 50mg tds SC • **Octreotide** 100 mcg SC, 2 or 3 times daily or Octreotide 300 mcg/24 hours (initially) by continuous SC infusion, and titrate to 600-800mcg over 24 to 48 hours (only after discussion with Calvary palliative care team/specialist) **TO REDUCE TUMOUR BULK IF CAUSING OBSTRUCTION:** • **Dexamethasone** 4mg mane and 4mg midi orally or SC • **REDUCE ORAL FLUIDS** 500ml-1000ml may be tolerated if given in small amounts
CONFUSION/DELIRIUM • Reversible causes pain, hypoxia, urinary retention, constipation, hypercalcaemia	• **Haloperidol** (Serenace) 0.5mg-1mg bd orally or SC (Maximum dose 5mg in 24 hours)
CONSTIPATION 1. Always use prophylactic laxatives with opioids 2. Aim to keep stools soft and regular 3. Adequate fluids and privacy when toileting 4. Lactulose not suitable for palliative care patients and avoid fibre supplements 5. Suppositories and enemas need to make contact with the bowel mucosa to be effective **Always consider bowel obstruction:** **Abdominal distension, reduced/absent bowel sounds, empty rectum.** **Low bowel obstruction may not produce nausea & vomiting. If uncertain-patient needs AXR.**	**PREVENT WITH:** • **Coloxyl and Senna** - 1-2 nocte (NOT in bowel obstruction) and if needed increase to **Coloxyl and Senna** 2 tds. *ADD (if fluid intake1-1.5L daily)* • **Macrogol 3350 (Movicol) -** 1 sachet BD *OR* **Fleet** - 3-5ml bd. (Maximum dose 10ml tds but consult with Calvary palliative care team/specialist) **IF INADEQUATE:** Increase **Coloxyl and Senna** to 3 tds **IF ESTABLISHED CONSTIPATION** (or no motion for 3 days) Exclude bowel obstruction with clinical examination and AXR if uncertain. PR exam: **Collapsed <u>empty</u> rectum or Soft faeces in the rectum – Increase to Coloxyl & Senna** to 2-3 tablets tds AND **Movicol** 1 sachet tds AND if ineffective **Bisacodyl** suppository AND if ineffective **Microlax** enema. **Hard faeces in the rectum - Glycerine** suppository AND **Bisacodyl** suppository or **Microlax** enema. If nil result Movicol 6-8 sachets in 750ml to 1L of water over 4-6 hours OR **fleet liquid** 5ml TDS. **No faeces ballooned rectum (unable to feel walls)** - Consider abdominal X-Ray to exclude obstruction. And consult Palliative Care Team.
DEPRESSION • Not just normal part of dying	**SSRIs/SNRIs** • **Mirtazapine** (Avanza) (may also help with weight loss and insomnia) **Tricyclics** (may also help with neuropathic pain and insomnia) • Consider time taken to effectiveness, interactions, side effects

CLINICAL CONSIDERATION	PHARMACOTHERAPY	
DIARRHOEA • Consider constipation with overflow, spinal cord lesion or fistula and reversible causes - laxative, endocrine, medications, colitis, giardia, clostridium	**KEEP HYDRATED** • **Loperamide** (Lomotil) 2 mg orally, after each loose motion or 6 hourly (maximum 16 mg/day)	May need abdominal X-Ray and rectal examination to ensure not dealing with faecal impaction and overflow
DRY MOUTH/PAIN Be proactive. 2/3 of patients have unreported dry mouth(often medication related) **General mouth care** • 2 hourly mouthwashes (1 teaspoons of sodium bicarbonate in 500ml of lukewarm water) • Frequent sips of fluids or plain water sprays; Gentle soft tooth brush; Frozen or fresh-pineapple pieces, melon, lime juice, tonic water • Lanolin-based lip balms	**SALIVA SUPPLEMENTS** • **Biotene** mouthwash 15 mL rinse and spit, 4-hourly or prn **CANDIDA MUCOSITIS** • **Nystatin** (Nilstat drops) 100 000 units/mL 1 mL qid • **Fluconazole** 50 to 100 mg orally, daily for 3 days **PAIN** • **Choline Salicylate gel** (Bonjela)	**HERPES MUCOSITIS/STOMATITIS** • **Famciclovir** (Famvir) 500 mg orally, 12-hourly for 7 to 10 days If unable to swallow may need to consider IV option **GENERAL INFECTION** • **Povidone-iodine** 7.5% solution 1 mL diluted to 20 mL with water, rinse and spit, qid **SALIVARY STIMULANT** • **Pilocarpine** 4% eye drops 1-2 drops tds
DYSPHAGIA • There are neurological, structural, functional causes • Consider assessment by speech pathologist • Surgery, Nasogastric or percutaneous endoscopic gastrostomy feeding tubes may be considered if early in palliative care or localised disease only	**TUMOUR OBSTRUCTION CONSIDER** • **Dexamethasone** 4mg mane 4mg midi for 3 to 5 days to give symptomatic relief This should be managed with assistance of Calvary palliative care team/specialist **OESOPHAGITIS** • Proton pump inhibitor	**CANDIDA OESOPHAGITIS** • **Nystatin** (Nilstat drops) 100 000 units/mL suspension 1 mL topically (then swallowed), 6-hourly • **Fluconazole** 50 to 100 mg orally, daily for 7 days
DYSPNOEA • Exacerbating causes - anaemia, PE, heart failure, pneumonia, pleural effusion • In heart failure perhaps limit fluids to 1500ml/day. Depends on goals and cardiology advice. • Non drug treatment - fans, open windows, repositioning	**IF NOT ALREADY ON AN OPIOID** • Prescribe 1-2mg **morphine** p.o. qid with breakthrough doses 1-2mg p.o. q2-4hrly prn **IF ALREADY ON AN OPIOID** • Increase regular immediate or slow release and breakthrough dosing by 10-25%	**AND FOR ANXIETY** • **Lorazepam** (Ativan) 0.25-0.5mg (¼-1/2 of 1mg) tds orally or sublingually (maximum dose 1mg tds) **IN CONGESTIVE CARDIAC FAILURE** • Consider **Frusemide** 20mg qid • If refractory dyspnoea consult Calvary palliative care team/specialist about use of nebulised **Frusemide**
FATIGUE • Reversible causes - pain, anaemia, sepsis, dehydration, medications, depression, endocrine/electrolyte imbalance.	• **Dexamethasone** 2mg-4mg mane may help short term and should not be commenced early • Only proven therapy is exercise program-consider referral to Calvary gym	• **Ritalin** May have a role-discuss with palliative care specialist • Advise to modify activities to conserve energy where possible
HICCUPS • Can be caused by phrenic nerve irritation, cerebral lesion or liver or kidney abnormalities	**MAY BE HELPED BY** • **Metoclopramide** (Maxolon) 10mg-20mg qid • **Haloperidol** (Serenace) 0.5mg-1mg bd orally or SC	• **Clonazepam** (Rivotril) 0.2-1mg (2-10 drops of 2.5mg/ml) bd sublingually • **Baclofen** 5mg tds (maximum 20mg qid)
INSOMNIA • Assess for anxiety and depression • Check actual wakeful hours • Encourage daytime wakefulness	• **Temazepam** (Normison) 10mg 1 Nocte increasing to 20mg nocte if needed *OR* • **Clonazepam** (Rivotril) 0.5mg (5 drops of 2.5mg/ml) sublingual nocte	**IF DEPRESSIVE SYMPTOMS CONSIDER:** • **Mirtazapine** (Avanza) 15-60mg nocte or a tricyclic antidepressant
NAUSEA & VOMITING **Assess for cause/reversible cause** • Medication such as chemotherapeutic, opioids • UTI, infection, septicaemia • Raised intracranial pressure-vomiting may occur without nausea and associated altered consciousness • Bowel obstruction (See bowel obstruction section) • Uraemia, hypercalcaemia • Anxiety	**CONSIDER SPECIFIC CONTRAINDICATIONS & INDICATIONS** • **Parkinson disease** **DO NOT USE** Metoclopramide (Maxolon) or haloperidol (Serenace). **USE Domperidone** (Motilium) 10mg tds before meals and at night (maximum dose 10mg qid before meals and at night or **Cyclizine** through Calvary. • **Bowel Obstruction** **DO NOT USE** Senna, Biscodyl, Metoclopramide and Domperidone (see management of bowel obstruction) • **Vestibular cause** **Prochlorperazine** (Stemetil) 5 to 10 mg orally, 3 or 4 times daily or **Prochlorperazine** 25 mg rectally, once or twice daily • **Raised intracranial pressure** **Dexamethasone** 4mg mane and 4mg midi	• **Psychological component** **Lorazepam** (Ativan) 0.25-0.5mg (¼-1/2 of 1mg) tds orally or sublingually (max dose 1-2mg tds) • **Possible gastritis** or **hyperacidity** Add proton pump inhibitor **GENERAL TREATMENT PROTOCOL** • **Metoclopramide** (Maxolon) 10mg tds oral or SC (Maximum dose 20mg qid) *IF THIS IS INEFFECTIVE THEN CHANGE TO OR ADD* • **Haloperidol** (Serenace) 0.5mg bd orally or SC. Increase dose to 1mg bd if needed. If effective can be increased to a maximum of 1.5mg bd or a continuous infusion of 3mg in 24 hours. ***IF THIS HAS BEEN INEFFECTIVE DISCUSS WITH Calvary palliative care team/specialist***

CLINICAL CONSIDERATION	PHARMACOTHERAPY
PAIN **Always prescribe an aperient with an opioid** • SEE CONSTIPATION- PREVENT WITH **Once stable dosing** • Morphine can be changed to - Slow release morphine, S/C morphine, Fentanyl patches • Hydromorphone can be changed to Jurnista tablets **Always prescribe break through dosing** • Prescribe 1/6 of the daily dose as a prn dose every 2 hours • Use Morphine if using fentanyl patches or Ms Contin • Use Hydromorphone if using Jurnista **Fentanyl sublingual lozenges** (Abstral/Fentora) work within 10 minutes for breakthrough pain. Only for patients stabilised for at least 7 days **on at least 60mg/day of morphine** or equivalent. Can be particularly helpful for *Quick relief painful events: car trip, showering, dressings* Review product information for careful dose titration over days	**USE A STEP WISE APPROACH** **Paracetamol** • Good starting medication (Maximum 4 grams daily) • Can continue with other medications to increase effect **NSAIDS or COX2** • eg **Naproxen** (Naprosyn) 250-500 bd (consider along with PPI) **Drugs for neuropathic pain** • **Nortriptyline** 10-50mg at night OR • **Pregabalin** (Lyrica)* Start 25-50mg daily and increase every 4 days to max 300mg /day • **Gabapentin** (Neurontin)* May be tolerated when pregabalin is not. Start 100mg tds and may titrate up to 3600mg/day. **Gabapentin and pregabalin- use lower dose in renal impairment/elderly* Neuropathic pain only partially responsive to opioids – risk of using toxic doses. Consider discussing with Calvary palliative care team/specialist **Opioid** *If not already on an opioid* • Start with **Morphine** 1-2mg (0.5-1ml of 2mg/ml) 4hrly • And Morphine 1-2mg (0.5-1ml of 2mg/ml) every 2-4 hours for break through pain *If renal impairment a consideration at any time* • Use **Hydromorphone** instead (Img **Hydromorphone**=5mg morphine) • **Hydromorphone** available as 1mg/ml liquid • Starting dose of **Hydromorphone** 0.2mg (0.2ml of 1mg/ml) 4 hourly 0.2ml 2-4 hourly for breakthrough *Adjusting the dose of an opioid* • Add up total opioid for the day including most breakthrough doses and make this then the total daily prescribed dose • Divide by 6 to give 4 hourly • Prescribe the same dose every 2-4 hours for breakthrough **Corticosteroid** • **Dexamethasone** 4mg mane If RUQ pain from liver metastases or headache from raised intracranial pressure **Changing to a different formulation of an opioid** (use the conversion table next page)
PRURITUS • General measures - bathing less often ,avoid soap, moisturise , don't overheat, short finger nails, avoid vasodilating foods, cool compresses	• Soothing lotions containing menthol, phenol or camphor **GENERAL ITCH MAY RESPOND TO** • **Promethazine** (Phenergan) 10-25mg 2 to 3 times daily • **Doxepin** 10-50mg orally at night • **Paroxetine** (Aropax) 20mg in morning • **OPIOID ITCH** - change the Opioid • **Gabapentin** 25-100mg Daily (Non-sedating antihistamines not generally effective) • **URAEMIC ITCH** - **Gabapentin** - 25-100mg Daily after dialysis • **CHOLESTATIC ITCH** - **Cholestyramine** (Questran) 4mg 2-3 sachets may be appropriate. Discuss with Calvary palliative care team/specialist.
RESPIRATORY SECRETIONS (noisy breathing) • Exclude reversible cause not due to terminal phase	• **Glycopyrrolate** (Robinul) 0.2 mg-0.4mg SC 2-4 hourly or 0.6 to 1.2 mg/24 hours by continuous SC infusion
SKELETAL MUSCLE PAIN • Multiple sclerosis and neuromuscular disorders	• **Diazepam** 2- 5 mg tds prn orally OR • **Baclofen** 5 mg Increase every 3 days up to 10 to 25 mg tds orally. Lower dose in renal impairment.
SWEATING • Exclude pain, menopause, sepsis, medications	**MAY BE HELPED BY** • **Cimetidine**, **Clonidine**, **Benztropine**, **Hyoscine**, **Paracetamol**, **Glycopyrrolate**, **NSAIDS**
WEANING DEXAMETHASONE • Discontinue if no benefit after one week. Monitor BSL and consider Nystatin 1ml qid	If <4mg for 1 week can stop abruptly if no prior courses. >4mg or prior courses need to wean by halving dose every 3-5 days until <2mg then wean by 0.5mg every 5-7 days.

COMMUNICATING WITH CALVARY PALLIATIVE CARE TEAM/SPECIALIST

- **Initial referral:** Use Calvary referral or GP referral including history and medications
- **Making contact with Calvary:** Consider organising to speak or meet with the Calvary community nurse caring for your patient. They can be contacted via Calvary Hospital **9553 3444** or **directly on their mobile number**. (See opposite)
- **Ongoing communication with Calvary palliative care team and GP:** Consider exchanging any change in management by mobile (text or call) or fax. Fax number for Calvary community team **95881635**.
- **GPs have 24 hour help available from the Calvary community team or a palliative care specialist. CALL 9553 3111 and ask for a community nurse or CALL 9553 3111 and ask for a palliative care specialist.**
- For all enquiries regarding RACFs, please contact the Nurse Practitioner on **0405 192 619**

When Calvary community nurses are away all attempt will be made for whoever is filling in to carry their phone. If there is no answer contact Caroline Belfanti on 0405193119.

Hurstville, Hurstville Grove, Hurstville South, Lugarno, Mortdale, Oatley, Peakhurst, Penshurst	0433-969-001
Arncliffe, Banksia, Bardwell Park, Bardwell Valley, Beverly Hills, Bexley, Bexley North, Kingsgrove, Kyeemagh, Narwee, Riverwood, Turrella, Wolli Creek	0438-855-398
Allawah, Beverly Park, Brighton Le Sands, Carlton, Connells Point, Kogarah, Kogarah Bay, Monterey, Ramsgate, Rockdale, Sandringham, Sans Souci	0405-194-319
Blakehurst, Caringbah South, Carss Park, Dolls Point, Kangaroo Point, Kyle Bay, Sylvania, Sylvania Heights, Sylvania Waters, Taren Point	0438-859-326
Burraneer, Burraneer Bay, Caringbah, Cronulla, Dolan's Bay, Kurnell, Lilli Pilli, Port Hacking, Woolooware	0437-220-341
Grays Point, Gymea, Gymea Bay, Miranda, Yowie Bay	0405-193-419
Bonnet Bay, Bundeena, Engadine, Heathcote, Loftus, Maianbar, Sandy Point, Sutherland, Waterfall, Woronora Heights, Yarrawarrah	0434-220-740
Alfords Point, Bangor, Barden Ridge, Como, Illawong, Jannali, Kareela, Kirrawee, Menai, Oyster Bay, Woronora	0475-808-707
MND and Chinese speaking pts regardless of area	0437-216-133
RACF Nurse Practitioner	**0405-192-619**

OPIOID CONVERSION INFORMATION

CONVERSION OF ALL OPIOIDS TO MORPHINE

When converting between opioids convert to the oral morphine equivalent.

- Opioid conversions are variable and only a guide.
- Consider discussing conversion with Calvary palliative care team/specialist to confirm.
- Each drug must also be titrated against pain and side effects for each individual patient.
- **Break through doses should always be prescribed to ensure adequate pain relief occurs at the time of conversion.**

Hydromorphone 1 mg = 5 mgs oral Morphine (1:5)

*Codeine (Panadeine forte) 60mg = 7.5 mg oral Morphine (8:1)

Oxycodone 10mg = 15mg oral morphine (1:1.5)

Tramadol (Tramal) 50mg = 10mg oral morphine (5:1)

*Digesic 1tablet = Panadeine forte 1 tablet = 4-5mg oral morphine

*Buprenorphine (Norspan) 5 patch=10mg morphine/24 hours (1:2)

Apart from breakthrough do not start oral opioids for at least 24 hours after removing Buprenorphine patch.

TO	Codeine	Morphine		Hydromorphone		Oxycodone
FROM	PO Mg/day	PO Mg/day	SC Mg/day	PO Mg/day	SC Mg/day	PO Mg/day
Codeine PO mg/day		8	20	40	120	12
Morphine PO mg/day	8		2	5	15	1.5
Morphine SC mg/day	20	2		2	6	0.6
Hydromorphone PO mg/day	40	5	2		3	0.3
Hydromorphone SC mg/day	120	15	5	3		0.1
Oxycodone PO mg/day	12	1.5	0.6	0.3	0.1	

- Add current opioid doses to get total milligrams per 24hrs
- Multiply or divide current total by conversion factor, this will give the dose per 24hrs
- Divide 24hr dose by appropriate number, i.e. 2 for bd dosing

Multiply
Divide

Refer to opioid conversion policy. Adapted from SHH.

**** NB: The conversion of Digesic , Panadeine forte and Buprenorphine patches is unclear. Conversions are a rough guide and patients should be considered opioid naive.***

ORAL TO SUBCUTANEOUS DOSING

- 2mg of oral morphine = 1mg of subcutaneous morphine (2:1)
- 2-3mg of oral Hydromorphone = 1mg of subcutaneous Hydromorphone (2-3:1)

CONVERSION BETWEEN LONG & SHORT ACTING OPIOIDS*

- **MS Contin or Kapanol to oral Morphine**
  Add total dose over 24 hrs. of MS Contin or Kapanol. Divide by 6 to give 4/24 dose. Give first dose of Morphine **12 hours after last MS Contin** or Kapanol has been taken. (Effect of MS Contin or Kapanol lasts 12 hours).
- **Oral Morphine to MS Contin or Kapanol**
  Multiply 4/24 dose of Morphine times 6 to get total dose over 24 hrs, then divide by 2. This gives bd slow release dose. Give first MS Contin or Kapanol at same time as last single dose of Morphine. (M.S. Contin takes 4 hours to be effective.)
- **Oral Hydromorphone** (Dilaudid) **to Prolonged release Hydromorphone** (Jurnista)
  Add total Hydromorphone over 24 hours and give equal amount of Jurnista as a single daily dose. Continue immediate release hydromorphone for 12 hours (Jurnista takes 16 hours to be effective).
- **Oxycodone** (Endone) **to OxyContin** (OxyContin SR)
  Add total mgs of Endone taken over 24 hrs and divide by 2 for bd dose of OxyContin. Give last dose of Endone with first dose of OxyContin. (OxyContin takes 4 hrs to be effective)
- **OxyContin to Endone**
  Add total mgs of daily OxyContin and divide by 6 to give 4/24 dose of Endone. Give first dose of 4/24 Endone 12 hours after last OxyContin taken. (Effect of Oxycontin lasts 12 hours)

*Do not crush slow release opioids

FENTANYL PATCHES

CONVERSION OF 4 hourly morphine to a 72 hr fentanyl patch

Dose of morphine every 4 hrs	Fentanyl dose mcg/hr
5mg	12mcg patch
< 10-20mg	25mcg patch
20-35mg	50mcg patch
35-50mg	75mcg patch
50-65mg	100mcg patch
65-80mg	125mcg patch
80-95mg	150mcg patch
95-110mg	175mcg patch
110-125mg	200mcg patch
125-140mg	225mcg patch
140-155mg	250mcg patch

- When commencing fentanyl patch continue 4/24 opioid for three doses as fentanyl takes 12-16 hours to be effective.
- When converting from Fentanyl patch to opioid: Remove the patch. Commence 4/24 opioid 12 hours later and use breakthrough opioid if needed.
- Fentanyl patches are only usually prescribed to patients who are changing from another opioid and must not be used for opioid naïve patients.
- Apply to clean, dry skin and write date on the patch.
- Use opsite to secure if excessive sweating.
- Rotate sites every 72 hours.
- For more effective adhesion warm the patch in your hands before applying.
- Do not cut Fentanyl patches.
- Dispose the used, unneeded or defective fentanyl patch by folding the sticky side of the patch together until it sticks to itself. Discard into the clinical wastes sharps container.
- After a patch is removed, the half-life of fentanyl in the blood is 15-20 hours.
- Heat increases absorption and can result in toxicity. This includes:
  - Never apply a heat pack to the patch
    If fever >38. Monitor or consider alternative route or check PI and remove patch

PRACTICE POINTS

Medications not on PBS - available through Calvary pharmacy:
Clonazepam, Lorazepam, Cyclizine, Levomepromazine, Morphine gel, Glycopyrrolate, Hyoscine hydrobromide

Dosing guide for Cyclizine and Levomepromazine

Cyclizine
12.5-50mg tds orally (not in bowel obstruction)
12.5-50mg BD Subcutaneously - titrated up to 50mg tds or infusion over 24 hours (DO NOT MIX WITH OTHER DRUGS IN SYRINGE DRIVER)

Levomepromazine
6.25mg orally or sc BD and titrate to a maximum dose of 50mg daily for nausea

Hypercalcaemia
Early signs nausea, confusion, constipation, fatigue and thirst. Consider particularly if bone secondaries. Management-Avoid thiazides, increase fluids and seek advice. If symptomatic or >3.5mmol/l- seek advice urgently

Cannabis
Currently no evidence for clinical benefit except in muscle spasm. Further trials may indicate benefits and interactions. Patients planning to use cannabis must register for the Terminally ill cannabis scheme to avoid prosecution for possession.