Earl Mountbatten Hospice | Isle of Wight NHS NHS Trust

Patient name:
Address:
Date of Birth:
NHS or IW Number:

Just in Case Medications

Where patients are deteriorating from a palliative illness, the therapeutic aim is prompt symptom control and losing the ability to take oral medicines is foreseeable (due to vomiting, weakness or drowsiness), please:

1. **Prescribe the medications on an FP10** (see boxes below) *and*
2. **Complete the grey boxes in the 'PRN table' below** (authorising community nurses to administer the medicines)
3. Ensure questions and concerns from the patient and their carers have been addressed
4. If appropriate, update the Adastra Frail Persons Advanced Care Plan, lilac DNACPR form and 111 triage bypass form

Usual regimen is 10 ampoules of each of the following

- **Morphine sulphate** (10mg/1ml size)
  ○ 2.5 to 5mg SC 1-4 hourly if no prior strong opioid *or*
  ○ SC dose at half of the existing oral PRN Oramorph
Additional notes on opioid dose conversions are over the page

- **Levomepromazine** 6.25-25mg SC PRN (25mg/1ml size)
- **Midazolam** 2.5 to 5mg SC PRN (10mg/2ml size)
- **Hyoscine butylbromide** 20mg SC PRN (20mg/1ml size)
- **Water for injections** as directed (20ml size)
Plus 14 tablets of - **Lorazepam** 0.5mg PRN QDS SL (1mg size Genus brand)

Situations needing a modified regimen
Parkinson's disease: avoid levomepromazine; use cyclizine 50mg SC† TDS for nausea and midazolam for agitation
Severe renal impairment: avoid morphine; use fentanyl SC† (100microgram/2ml size) instead
Epilepsy: prescribe midazolam 5-10mg SC PRN for seizures and pre-emptively prescribe midazolam† 20mg/day via CSCI when unable to take oral anti-epileptics
Already using oral oxycodone: use SC oxycodone (10mg/1ml size) in place of morphine. SC PRN dose is half the oral PRN dose

PRN ('as required') doses

This pre-printed record of drugs prescribed is used *instead* of the 'blank' district nurse administration chart.
Seek advice if 2 or more doses have been ineffective or if benefit lasts less than 1 hour – the dose or drug may need changing.
Most are used in the last days of life once a decision has been made that the focus of care is on ensuring comfort.
Some can be used in a few other specific circumstances – turn over for more details.

Date	Drug	Indication	Dose	Route	Minimal interval	Seek advice before exceeding	Prescribers signature
	Morphine Sulphate	Pain Breathlessness or cough		SC	1 hour	6 doses/day	
	Levomepromazine†	Nausea	6.25mg	SC	1 hour	25mg/day	
		Terminal agitation	12.5-25mg	SC	1 hour	100mg/day	
	Midazolam†	Anxiety Breathlessness (2nd line)	2.5 to 5mg	SC	1 hour	4 doses/day	
	Hyoscine Butylbromide†	Distressing chest secretions Colicky abdominal pain	20mg	SC	1 hour	4 doses/day	
	Lorazepam†	Anxiety	0.5 to 1mg	Subling	1 hour	4 doses/day	

Continuous Subcutaneous Infusion (CSCI / Syringe Driver)

This section is generally left blank until PRN doses start to be needed. If PRN drugs are used *and are effective*, those drugs are then given via continuous subcutaneous infusion. The above 4 subcutaneous drugs can be used singly or in combination.
The "when to start" column is only used if prescribing pre-emptively (e.g. "when ability to take oral Zomorph is lost")

Date	Drug	When to start	Dose over 24 hours	Route	Diluent	Prescribers signature
				CSCI	Water	
				CSCI	Water	
				CSCI	Water	
				CSCI	Water	

† = off-label use or route # = specialist-initiated Authors: Paul Howard and Graham Grove (Earl Mountbatten Hospice, October 2014)

Just in Case Medications – when to use and when *not* to use

Most subcutaneous medications can be used either in the last days of life or alongside the treatment of intercurrent problems. For example, SC morphine can be used to maintain analgesia while addressing vomiting and SC hyoscine butylbromide can control colicky pain due to constipation whilst obtaining appropriate laxatives.

However, the following subcutaneous medications should generally *only* be used in the last days of life unless on the specific advice from an experienced clinician or a written symptom management plan:

- Hyoscine butylbromide for chest secretions - This reduces the volume of chest secretions but sometimes makes them more tenacious. Thus it is generally only used when you are no longer able to treat the underlying cause (e.g. antibiotics for chest infection) *and* when the patient no longer has an effective cough (otherwise, treatment aimed at aiding expectoration would be more appropriate: chest physiotherapy; saline nebulisers; carbocisteine)
- Morphine sulphate and midazolam for breathlessness – Seek further advice before use if still treating a reversible cause (e.g. antibiotics for a chest infection) unless a patient-specific management plan advising their use is in place
- Midazolam via continuous subcutaneous infusion for epilepsy – This may cause drowsiness that could hamper subsequent treatment of an underlying cause. Seek advice about possible alternatives (e.g. IV anti-epileptics, SC valproate# or SC levetiracetam#) before commencing if the patient is not thought to be in the last few days of life. Note that *stat doses* of midazolam *can* be given for emergency treatment of a seizure even if the underlying causes can potentially be treated.

Equianalgesic Doses for Opioids

For patients who are on *oral* opioids and are no longer able to swallow, replace their previous opioid with a continuous subcutaneous infusion (syringe driver) of the same opioid at half the previous oral dose (see chart).

Worked example: a patient taking Zomorph 60mg/day (i.e. 30mg twice daily) requires morphine sulphate 30mg/day via a continuous subcutaneous infusion.

For patients who are on opioid *patches*, continue these unchanged and prescribe a PRN opioid:

For a fentanyl 25 size patch, prescribe morphine sulphate 7.5mg SC PRN *or* oxycodone 5mg SC PRN.

If further analgesia is needed, commence a low-dose continuous subcutaneous infusion in addition to the patch.

Working example: a patient with a 50 size fentanyl patch required SC morphine 15mg twice in the last day. The patch was continued at an unchanged dose and morphine 30mg/day (reflecting the 2 PRN doses needed) was added via a continuous subcutaneous infusion (syringe driver) because this would achieve therapeutic levels more quickly than titrating the patch.

Morphine (milligrams)		**Oxycodone** (milligrams)		**Fentanyl†** (***micro***grams)	
Oral	**SC**	**Oral**	**SC**	**SC**	**Patch**
5	2.5	≈5	≈2.5	≈25	
10	5	≈10	≈5	75	
15	7.5	10	5	125	
30	15	20	10	200	
60	30	40	20	450	
90	45	60	30	600	*
120	60	80	40	900	
150	75	100	50		
180	90	120	60		
210	105	140	70		
240	120	160	80		

* Fentanyl patch sizes are expressed as micrograms per/hr. Thus a 25 size patch releases 600 micrograms/day (25x24), equivalent to 90mg/day of oral morphine.

For further advice, see symptom guidelines booklet or contact the palliative care team

Titrating Up Doses of Continuous Subcutaneous Infusions

If pain is poorly controlled *and the opioids are helpful*, increase the long-acting background opioid dose. In general, increase by approximately a third. For example, if a patient on morphine 30mg/day via continuous subcutaneous infusion has 3 breakthroughs of 5mg SC morphine in 24-hours which relieved the pain effectively for several hours on each occasion, the continuous subcutaneous infusion would be increased to 40mg/day.

If distress persists despite previous opioid increases and PRNs, seek advice. Common explanations include agitated delirium (try levomepromazine or midazolam) or opioid poorly-responsive pain (try midazolam if muscle spasm suspected; otherwise, seek advice).

Titrate the PRN opioid dose in parallel to the regular dose

For patients on a continuous subcutaneous opioid infusion, a dose of one-sixth to one-tenth of the total daily dose of opioid is usually required as the PRN dose (e.g. a person taking morphine 60mg over 24 hours via CSCI will probably require breakthrough doses of 10mg of SC morphine PRN)

Further Information and Advice

For any concerns or advice, please call the Earl Mountbatten Hospice community team and speak to the patient's nurse or a palliative care doctor. The phone number is 533 331. The 2014 Isle of Wight Palliative Medicine Advice Handbook contains further advice. It can be obtained via the hospice, its website or via the Apple, Google and Microsoft app stores.

† = off-label use or route # = specialist-initiated

Authors: Paul Howard and Graham Grove (Earl Mountbatten Hospice, October 2014)