

WESTERN LOCALITY SPECIALIST PALLIATIVE CARE SERVICE

GUIDELINES FOR PRESCRIBING FOR SYRINGE DRIVERS IN PALLIATIVE CARE

Indications for using a syringe drive [SD]:

1. Altered level of consciousness in a dying patient.
2. Persistent nausea and vomiting e.g. in bowel obstruction
3. Inability to swallow
4. Malabsorption

The syringe driver is simply another method of administration of medication for patients who are symptomatic.

***Remember to prescribe water for injections when prescribing medication for a syringe driver.**

ANALGESIC

Diamorphine – dose per 24 hours: No ceiling dose but:

1. Start at 10mg/24 hours in opioid naive patients (less in very elderly/frail).
2. See conversion table for calculating doses, changing from oral to SD use and using other opioids e.g. converting the total daily dose of oral morphine to the total daily dose of subcutaneous diamorphine by dividing by 3, e.g. MST 60mg bd=120mg/day =diamorphine 40mg/24 hours by SD (Powder for reconstitution; amp sizes are 5mg, 10mg, 30mg, 100mg or 500mg amp).
3. **Caution:** in patients with **significant renal impairment (suspected eGFR <30)** aim to avoid diamorphine/morphine because of significant risk of opioid accumulation/toxicity. Alternative opioids such as oxycodone/fentanyl/alfentanil may be more appropriate. Please seek advice from Specialist Palliative Care team (see guidance on prescribing at end of life in renal failure).
4. **Patches** - Topical opioid patches should not be started in the terminal stage since it takes too long to titrate against a patient's pain. If the patient is already established on a patch it is usually appropriate to continue with it and add in additional medications via the SD. Take into account the patch dose when calculating PRN doses.

ANTIEMETICS

1. Metoclopramide: Useful for gastric stasis and upper gastrointestinal obstruction. Avoid in patients with colic. Non-sedating.

Dose per 24 hours: 30-60mg

Dose per prn injection: 10mg 6-8 hourly
(Vial strength 5mg/mL in 2-mL amp)

2. Haloperidol: Useful in chemically induced vomiting (e.g. hypercalcaemia, renal failure), and/or in patients with psychotic features. Sedating at higher doses. Use lower dose in the elderly.

Dose per 24 hours: 2.5-5mg (up to 10mg if being used for sedation as well)

Dose per prn injection: 1-3mg od-bd
(Vial strength 5mg/mL in 1-mL amp)

3. Levomepromazine: Good antiemetic especially with co-existing anxiety, very sedating at higher doses.

Dose per 24 hours: 6.25-25mg

Dose per prn injection: 6.25mg 6-8 hourly.
(Vial strength 25mg/mL in 1-mL amp)

4. Cyclizine: Relatively non-sedating, useful in mechanical bowel obstruction or raised intracranial pressure, **(can precipitate with hyoscine butylbromide/oxycodone/alfentanil so consider advice from specialist palliative care).**

Dose per 24 hours: 50-150mg

Dose per prn injection: 50mg 8 hourly (max. 150mg/24hours)
(Vial strength 50mg/mL in 1-mL amp)

ANTISPASMODICS

Hyoscine butylbromide (Buscopan)

Dose per 24 hrs: 60-120mg
(Vial strength 20mg/mL in 1-mL amp)

***Caution:** Whilst Hyoscine butyl bromide should be used with caution for patients with cardiac disease and tachycardia, in the context of last days of life it would be appropriate to make a clinical decision based on the risk/benefit.

SEDATIVES

1. Midazolam: Useful for anxiety, breathlessness, restlessness and muscle stiffness in terminal phase. Also used as an anticonvulsant.

Dose per 24 hours: 10-50mg (higher doses occasionally required in terminal agitation)

Dose per prn injection: 2.5-10mg 4 hourly
(Vial strength 5mg/mL in 2-mL)

***Caution:** respiratory depression is more likely when midazolam is given parenterally with diamorphine.

2. Levomepromazine: Useful as sedative but can lower fitting threshold.

Dose per 24 hours: 12.5-50mg (higher doses occasionally required)

Dose per prn injection: 12.5-25mg 4 hourly

TERMINAL SECRETIONS

1. Hyoscine butylbromide (Buscopan) useful in respiratory secretions **when sedation not desired.**

Dose per 24 hours: 60-120mg

Dose per PRN injection: 20mg 4 hourly
Suitable for use if suspected eGFR <30

2. Hyoscine hydrobromide useful in terminal stages **when sedation required** but can cause paradoxical agitation; usually given with a sedative, e.g. Levomepromazine or Midazolam.

***Caution: avoid if suspected eGFR <30.**

Dose per 24 hours: 1.2-2.4mg

Dose per prn injection: 0.4-0.6mg 4 hourly (max. 2.4mg/24 hours)
(Vial strength 400mcg/mL in 1-mL amp)

3. Glycopyronium Bromide: Useful in terminal stages, recommended in renal impairment (eGFR<30), not sedative.

Dose per 24hrs: 0.6-1.8mg

Dose per PRN injection: 0.4mg
Suitable for use if suspected eGFR <30
(Vial strength 200mcg/mL in 1-mL or 5-mL amp)

PRN DOSES

Always ensure that adequate prn doses are clearly written so that any trained healthcare professional visiting the home who does not know the patient can give extra medication when indicated.

CONTACT DETAILS

St Luke's Hospice Community Specialist Palliative Care Team

Mon – Fri 9-5 Tel no: 01752 964200

24 hour advice line (St Luke's Hospice) Tel no: 01752 401172 Calls go through to the hospice. The Senior Nurse will be able to answer queries or ask the Doctor on call to ring you back.

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Created: March 14

Review Date: June 19