Syringe Pump Prescribing in the Last Hours or Days of Life One-pager guidance (Version 24.03.20)

For more detailed guidance, suggest https://www.palliativecareguidelines.scot.nhs.uk AND/OR contact specialist palliative care team for advice

Adherence to guideline recommendations will not ensure a successful outcome in every case. It is the responsibility of all professionals to exercise clinical judgement in the management of individual patients. Palliative care specialists occasionally use or recommend other drugs, doses or drug combinations.

When should a syringe pump be used? When a patient is unable to take PO medications and needs a regular infusion to control symptoms.
What medications? 4 symptoms commonly require medications for relief of distress at end of life:

1a. Persistent pain and/or breathlessness (for an OPIOID NAÏVE patient)

First step: Morphine SC 5mg to 10mg (if no previous opioid use) via syringe pump over 24 hours.

May also need midazolam SC 5mg to 10mg via syringe pump over 24 hours for symptom relief if breathlessness severe or 'total' pain (i.e. existential distress) present.

Second step: Titrate morphine and/ or midazolam with advice. Dose and rate of increase are dependent on symptoms and response to PRNs.

1b. Persistent pain and/or breathlessness (for patient already on regular opioids)

First step: Convert the 24-hour oral opioid dose to a 24-hour SC infusion by dividing the 24-hour oral dose by two e.g.

MST 30mg PO BD = morphine sulphate 60 mg PO over 24 hours ≈ morphine sulphate 30mg SC over 24 hours

Second step: Titrate opioid with advice. Dose and rate of increase are dependent on symptoms and response to PRNs.

2. Persistent anxiety/distress or delirium

First step: Midazolam SC 10mg to 20mg over 24 hours in a syringe pump.

Second step: Titrate Midazolam with advice. Dose and rate of increase are dependent on symptoms and response to PRNs.

Note: Levomepromazine may need to be used in addition to midazolam if anxiety/ distress or delirium is severe:

- Levomepromazine 6.25 to 12.5mg over 24 hours in a syringe pump.
- Higher starting doses can be used under specialist advice.

If levomepromazine not available, haloperidol can be used instead e.g. haloperidol 2.5 to 5 mg over 24 hours in a syringe pump.

3. Persistent oropharyngeal secretions

First step: Hyoscine butylbromide (Buscopan®) 60 to 120mg via syringe pump over 24 hours.

Second step if symptoms persist: Stop hyoscine butylbromide and instead start glycopyrronium 1.2 to 2.4mg via syringe pump over 24 hours.

Version 24.03.20
For more detailed information refer to
https://www.palliativecareguidelines.scot.nhs.uk

4. Persistent nausea or vomiting

Step 1: Selection of anti-emetic depends on whether the patient is already on an effective anti-emetic or not. Starting doses of possible anti-emetics are:

- Cyclizine 150mg via syringe pump over 24 hours **OR**
- Haloperidol 1-2.5mg via syringe pump over 24 hours **OR**
- Metoclopramide 30mg via syringe pump over 24 hours **OR**
- Levomepromazine 6.25 to 12.5mg over 24 hours

Step 2: Titrate or change anti-emetic with advice. Dose and rate of increase are dependent on symptoms and response to PRNs.

Practice points:

- Regular review ensures best care as patient's condition deteriorates, stabilises or improves.
- Use minimum effective dose and titrate according to response.
- If side effects with morphine, use alternative opioid such as oxycodone (note: twice as potent as morphine, so will need dose adjustment).
- If eGFR< 30ml/min, adjust dose +/- medication; seek specialist advice.
- All patients should also have PRN medications (refer to anticipatory prescribing one pager).
- Information on drug compatibilities available at https://www.palliativecareguidelines.scot.nhs.uk
- If syringe pump not available, a regular schedule of stat doses can be prescribed – seek specialist advice.