Prescribing regular subcutaneous medications in the Last Hours or Days of Life when a syringe pump is not available One-pager

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 prescribe or recommend other drugs, doses or drug combinations.

For which patients?
Patients who are experiencing persistent distress require prescription of regularly scheduled medications to ensure their comfort. When a patient is unable to take PO medications, a syringe pump is often used. If a syringe pump is not available, a regular schedule of subcutaneous (SC) injections can instead be given through a SC cannula to ensure symptom control.

Why give medications by the SC route?
There is good blood supply under the skin and this carries the drug into the rest of the body. SC injections are normally less painful than an injection into the muscle and are easier to give than an intravenous or intramuscular injection.

Where is the SC cannula inserted?
The cannula can be inserted into the person's abdomen or chest, upper thigh or upper arm. If the person is experiencing confusion and is likely to remove the cannula, it can be placed in the upper back.

What is the maximum volume of SC medication that can be administered?
Please note that the maximum recommended volume of each subcutaneous injection is 2 ml. Above this volume, the injection will be painful for the patient and absorption may be compromised.

Version 2. 29.3.20. For more detailed information refer to https://www.palliativecareguidelines.scot.nhs.uk

1a. Persistent pain and/ or breathlessness (for OPIOID NAÏVE patient)
Morphine sulphate 2.5mg SC q4-hourly

1b. Persistent pain and/or breathlessness (for patient already on a regular oral opioid)
Convert the 24-hour oral opioid dose to a q4-hourly SC regime by:
- Dividing the total 24-hour oral dose by two to obtain the 24-hour SC dose,
- And then by dividing that number by six to obtain the q4-hourly SC dose

E.g. MST 30mg PO BD
= Morphine sulphate 60mg PO over 24 hours
≈ Morphine sulphate 30mg SC over 24 hours
= Morphine sulphate 5mg SC q4-hourly.
Note: sometimes it may be necessary to round the dose of opioid to the nearest easily measurable dose.

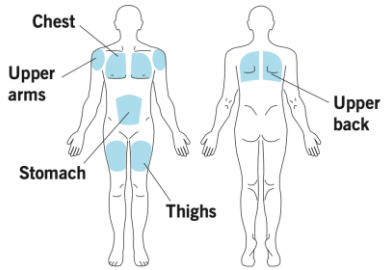
2. Persistent anxiety/ distress or delirium
Midazolam 2.5mg SC q4-hourly

3. Persistent respiratory secretions
Hyoscine butylbromide 20mg SC q4-hourly

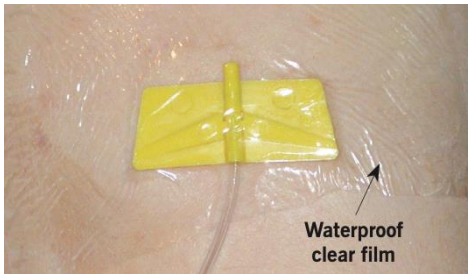
4. Persistent nausea or vomiting
Haloperidol 0.5-1mgmg BD or levomepromazine 3.125-6.25mg BD

Don't forget to prescribe PRN medications also (see anticipatory one pager).
Always review effectiveness of medications and titrate according to need. Specialist palliative care are always available to provide advice.

Common sites for subcutaneous medications



Subcutaneous cannula site- healthy site



Subcutaneous cannula site- inflamed site – ineffective & needs a new site