Management of Subcutaneous Infusion Devices in Palliative Care

General Principles

- Check manufacturer’s guidelines and organisation’s protocol regarding preparation and set-up for changing the device
- Use aseptic technique when preparing and setting up infusion
- Check microbiological stability, physical and chemical compatibility of drugs used
- Ensure patient and family/carer receive full explanation of how the device works and indications for use
- A prescription from a medical officer or appropriately credentialled nurse practitioner is required before administering any medication
- Use Te/filon/Vialon cannula to reduce risk of site inflammation
- When changing extension set and/or cannula, prime line after drawing up prescribed medications, and before connecting to the patient

Reservoir Volumes

1 ml to 100 ml

Duration

10 minutes to 96 hours in 5 minute intervals
(not greater than 24 hours duration is recommended)

Alarms – audible and visual

- Air in line
- Low reservoir volume
- High delivery pressure
- Program incomplete
- Motor locked
- Upstream occlusion
- Pump fault

- Disposable not attached
- Reservoir volume empty
- Pump stopped
- Battery dislodged
- Low battery
- Depleted battery power
- Key stuck

Selection, Preparation and Maintenance of Subcutaneous Cannula Insertion Site

- Site selection influenced by whether patient is ambulatory, agitated and/or distressed
- Select a site that is easily accessible eg. chest or abdomen, with a good depth of subcutaneous fat
- Select and use sites on a rotating basis
- Do not position cannula in areas that are:
  - Lymphoedematous or where lymphatic drainage may be compromised, e.g. in women who have had a mastectomy
  - Bony prominences or in close proximity to a joint
  - Inflamed or where there is broken skin
  - Sites of infection or tumour
  - Skin sites that have recently been irradiated
  - Where scarring is present or in skin folds
  - Wherever ascites or pitting oedema are present
- Site longevity varies from 1–14 days. Type of medication and type of cannula used will influence site longevity.

Subcutaneous Infusion Sites

- Anterior Upper Arm (Often limited subcutaneous tissue) - avoid dominant arm if patient still active
- Anterior Chest Wall (Good option) - avoid areas around access devices
- Central Abdominal Wall - Avoid over tumour sites and if ascites or obstruction
- Anterior Upper Thigh - Avoid if oedematous or lymphatic obstruction
- Posterior Chest Wall (Scapular region) - Consider if patient pulling at things difficult due to positioning
- Posterior Upper Arm - Reasonable choice as some subcutaneous tissue in emaciated patients

Prepared by the Centre for Palliative Care Research and Education in conjunction with Palliative Care Australia. Funded by the Australian Government Department of Health and Ageing.