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 a Luer-Lok® syringe to prevent risk of disconnection; recommended minimum syringe size is 20 ml to reduce risk of incompatibility, adverse site reactions, and minimise effect of priming the line
- Use Teflon/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

Alarms – audible and visual

- Air in line
- Almost empty
- End of infusion
- Start
- Distal occlusion
- Proximal occlusion
- Power loss
- Improperly installed cassette
- Empty container
- Programming incomplete
- Using batteries
- Low batteries
- Change batteries

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 areas around access devices
- Central Abdominal Wall - avoid areas around access devices
- 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
- Anterior Chest Wall - avoid dominant arm if patient still active
- Anterior Upper Thigh - avoid if oedematous or lymphatic obstruction

Image courtesy of Hume Region Palliative Care Consortium

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