

PR24: Subcutaneous Butterfly Placement

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Applicable To

- ACP and higher

Introduction

To provide guidelines to paramedics for the establishment of a subcutaneous (SQ) injection site and for the safe, accurate, and intermittent administration of medications via a subcutaneous injection site to the palliative care population for pain and symptom management when other routes are not possible or established.

Procedure

1. **Clinical consultation required** prior to establishing a SQ butterfly and prior to administering medications via a SQ line.
2. Gather required equipment, perform hand hygiene, and don clean gloves.
3. Select the SQ site.
 - Note: site must be changed every seven days to maintain patency and sites must be rotated to avoid tissue damage
4. Cleanse site (circular area 5-8 cm) with chlorhexidine/alcohol swab; allow to dry.
5. Remove slide clamp from the SQ butterfly if preferred as clamp is not required after insertion.
6. Remove the vent plug and attach a needleless connector/LuerLock to the side Y port.
7. Prime the set with medication (additional 0.4 mL for priming the set, including the LuerLock).
8. Rotate the white safety shield 360° to loosen the needle. Ensure the bevel is up and catheter is not extended over the needle tip/bevel.
9. Pinch the textured yellow wings together, textured side down.
10. Gently pinch the skin fold and insert the needle at a 30-45 degree angle to the full length of the needle.
11. Hold the wings flat on the skin firmly (do not hold the centre bar). Pull back on the white safety shield in a straight continuous motion until the safety shield separates, leaving the cap.
12. Apply an Opsite sterile transparent dressing. Loop the extension set and secure in place.
 - Optional: place gauze under the port to protect the skin from pressure
13. Label the dressing:
 - Name of medication and concentration
 - Date and time of insertion
 - Administrator initials
 - Administrator clinical designation
14. Record insertion on ePCR with the following:
 - Date and time; drug; concentration; dose; route
 - Injection site and catheter size
 - Site assessment
 - Patient's response to procedure, any patient/family education, or any other pertinent actions or observations
 - Individual who inserted the catheter and administered the medication

Notes

General Directives:

- Do NOT flush tubing (medication remaining in tubing will be given during the next administration).
- **Clinical consultation required** prior to establishing a SQ butterfly and prior to administering medications via a SQ line.
- The site should be assessed for redness, bruising, swelling, tenderness, leakage, or discharge. Re-site if any of these are present.

- The SQ site is to be changed every seven days or sooner to maintain patency. If two sites are being used, then two separate locations should be used (rotate sites).
- To help optimize medication absorption and patient comfort, the maximum amount of medication to be administered at one time/site is 2 mL. If greater volume is required, two sites can be used to deliver the required amount. A minimum of 30 minutes must be adhered to between doses at the same site.
- Note: more than one SQ site is required for multiple medications.
- Sites for catheter insertion are to be rotated to avoid tissue damage.
- If blood appears in the tubing, remove and discard the SQ set and select a new injection site.

Equipment & Materials

- #24 gauge butterfly needle
- Chlorhexidine 2% or 70% isopropyl alcohol swab
- Transparent dressing (e.g., Opsite or Tegaderm)
- Tape
- Non sterile gloves, latex free
- Needleless butterfly syringe with LuerLock containing the medication dose ordered, plus an additional 0.4 mL of the medication for priming the needle and tubing set at the time of initial dose administration
 - Volume may be different if using product other than Saf-T-Intima or Baxter One-Link Needle-free IV connector

Preferred Injection Sites

- Upper arms
- Abdomen
- Anterior aspect of thighs
- Above scapula
- Subclavicular chest wall

Note: site should be easily accessible; free of lesions; clear from large vessels, joints, and bones; and away from edematous tissue that may alter medication absorption.

References

Provincial Health Services Authority (2013). BC Cancer Agency: Intermittent and Continuous medication administration via an established Subcutaneous Injection Site.

Provincial Health Services Authority (2009). BC Children's Hospital Child and Youth Health Policy and Procedure manual: Continuous Subcutaneous Medication or Fluid Infusion.

