

# Sample Subcutaneous Indwelling Access Protocol

This protocol was developed by the Palliative Care Consultation Program and endorsed by Dr. Mary Anne Huggins, Medical Director for the Mississauga Halton Palliative Care Network. It is to be used for reference only, based on Best Practice Guidelines. Each organization is unique and policy development in individual facilities should recognize the mission, vision, and values of each organization.

## Purpose:

- To provide guidance in initiating, maintaining and monitoring of winged infusion sets for subcutaneous injections.
- To decrease the necessity for multi-site injections for single medication administration.
- To decrease discomfort for the patient and increase satisfaction of access to medications that are needed on a daily basis when a subcutaneous route is the preferred route i.e. the person is no longer able to swallow.

## Equipment:

- Alcohol swab
- Winged infusion butterfly set – 25 gauge, or 27 gauge (finer needle)  
OR
- Saf-T-Intima 24 gauge 19mm (includes adaptor) is needleless for cognitively impaired residents  
OR
- Sof-Set injection 24 gauge x 24in. (needleless for cognitively impaired residents)
- Cavilon No Sting Wipe (for those who have fragile skin)
- Occlusive Dressing, approx. 10 x 12 cm e.g. Tegaderm
- PRN medication adaptor
- 3 cc syringe
- Medication as prescribed
- Saline (only if one site used for multiple medications)

## Procedure:

1. Explain procedure to the person and family.
2. Wash your hands.
3. Prime the winged butterfly set or the Sof-Set with the medication ordered.
4. Gently pinch the person's skin at the chosen subcutaneous injection site to form a bulge. Sites to consider include the abdomen, above or below the waist; arms and thighs or upper chest below the subclavian vein.
5. Cleanse the site using the alcohol swab; allow area to dry. Point the bevel of the needle up, and insert the entire length of the needle at a 45 degree angle. (Different sets may require a different insertion technique).  
NOTE: If blood return is present, withdraw the infusion set and repeat the procedure using a new infusion set in an alternate site.

Reference: Sample Subcutaneous Injection Protocol, St. Joseph's Health Care, London  
From *Nursing Best Practice Guidelines; assessment and management of pain*  
RNAO, November 2002

6. Loop tubing to prevent pull on the site, and cover set and tubing with occlusive dressing.
7. Label the dressing with the name of the medication, date and time of insertion and your initials.
8. Ensure the injection cap is securely on the end of the extension tubing.

**Administration:** To administer medication through the “butterfly”

1. **One Medication/One Site**

Cleanse the cap of the extension set with an alcohol swab. Insert needle into cap and inject prescribed medication. If there is only **one** medication going into the site, flushing the tubing with saline after each medication administration is **not necessary and not advised**.

2. **One Site/Multiple Medications**

If the site is needed for 2 or more medications, **consider using a second site**. If one site is needed for more than one medication, flush with N.S. after each medication up to a combined total volume of no more than 2 cc. (saline & medication) The volume of the saline flush need only be equal to the volume of the tubing and needle. ( i.e. if tubing holds 0.2 cc of volume of then only 0.2 cc of N. S. is required for flushing).

Either method (separate sites for each medication or one site for multiple medications) is acceptable, but practice **must be consistent** by all care providers.

3. The volume of fluid per injection should not exceed 2 cc to allow for timely absorption of medication and reduce discomfort for the patient. Inject the medication slowly over 1 – 5 minutes depending on the patient’s discomfort.
4. Document as per facility policy; dose, time and route.

**Site Changes:** Assess the site every shift or prior to every injection for redness, bruising, swelling, tenderness, leakage, or purulent discharge.

There might be slight local redness at the insertion site for several minutes or up to 60 minutes following the establishing of a new site. If the redness persists after this, remove the needle and re-site.

Change site as per agency/facility policy (some recommendations are 5-7 days, but the site might be sustainable for a longer period depending on many variables).

**Documentation:** Record date, time and site of insertion/removal of winged infusion set in patient’s health record. Record the condition of the site every shift or at each visit.

**NOTE:** This system can be used for subcutaneous infusion using a computerized portable pump, a syringe driver or a positive pressure infuser.

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