

INSUFLON

Subcutaneous Catheter

Indications

- Used to administer subcutaneous medications without subjecting the baby to a subcutaneous injection with each medication dose. (administration of subcutaneous medications such as low molecular weight heparin or morphine for babies on palliative care)

Definitions/Key points

- The catheter is made of Teflon with a silicone membrane covering the injection hub. The dead space in the catheter is less than 0.0075 ml.

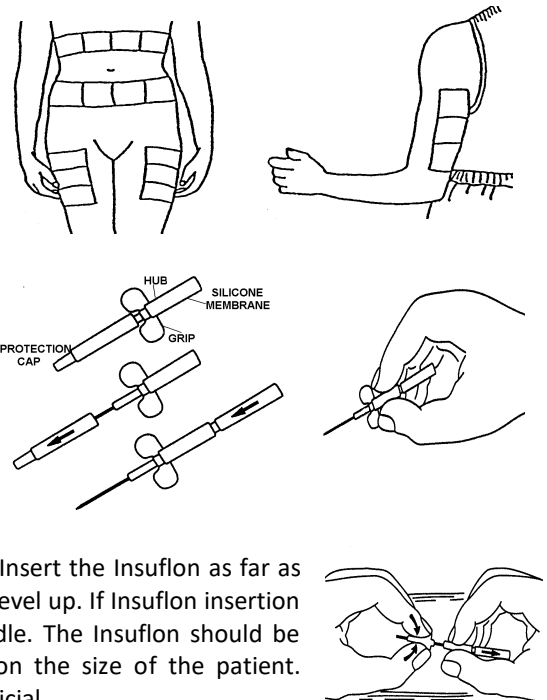
Procedure - Insertion

Materials

- Topical anesthetic cream (MD order needed)
- Sucrose (should also consider breastfeeding/skin to skin for pain management)
- Chlorhexidine/alcohol swab as per protocol
- Insuflon catheter with adhesive disk

How?

- Wash your hands with antiseptic agent.
- Gather the appropriate equipment.
- Select an insertion site. Avoid skin folds. Preferred sites include the posterior aspect of the upper arm, the anterior upper thigh or the abdomen. The Insuflon should be placed vertically (toward head) in the limb or horizontally in the abdomen. Apply EMLA cream to site 1 hour before insertion to minimize discomfort associated with needle insertion.
- Clean the site with chlorhexidine/alcohol swab and allow to dry. The skin should be dry to ensure secure adhesion of the foam pad and to ensure proper action of antiseptic.
- Hold the catheter hub and remove the protection cap. During insertion, hold Insuflon hub between the thumb and the index finger.
- Hold the patient securely with one hand and pinch the skin at the site of insertion. You may require an assistant to stabilize the child's limb. Insert the Insuflon as far as possible at 20° to 45° angle in one smooth quick movement with the bevel up. If Insuflon insertion is too slow there is a risk of the catheter peeling back from the needle. The Insuflon should be inserted deep into the subcutaneous tissue; the angle will depend on the size of the patient. Medications can be locally irritating if the Insuflon is inserted too superficial.
- Remove the needle by holding the catheter hub firmly and pulling the needle out slowly. Use a new Insuflon if the catheter is damaged or withdrawn. Dispose of the needle in a sharps container.



8. Secure the Insuflon with the provided adhesive in such a way that the insertion site is covered but clearly visible and the hub is open to the air. The insertion site must be **observed q shift for signs of redness, swelling, exudate or bleeding**.
9. If these signs/symptoms present, notify medical team and consider removing insuflon. Patient may need site rotation for injections.
10. The Insuflon catheter should be changed every 7 days or sooner if there are any signs of redness, pain, swelling, exudate or bleeding. Document the procedure in the nursing notes and write on the Nursing care Plan Worksheet the date of next change to ensure that the catheter does not exceed 7 days indwelling time
 - When?
 - Q 7 DAYS + PRN if signs of redness, pain, swelling, exudate or bleeding)

Procedure – Administration of medication

- Materials
 - 1ml tuberculin syringe with 28 gauge ½” needle
 - Chlorhexidine 0.5%/alcohol 70% swab
- How?
 - *Note: The maximum volume that can be administered subcutaneously **to a term neonate is 1 mL**; up to 2 mL can be given to a larger infant/child
 1. Check medication to be administered according to unit policy.
 2. Wash your hands with an antiseptic agent.
 3. Gather appropriate equipment.
 4. Observe site for any signs of redness, swelling, exudate or bleeding prior to injection. The catheter site should be changed if any of the above signs are present.
 5. Clean the membrane of the Insuflon hub with a chlorhexidine/alcohol swab and allow to dry. Insert the 28 gauge needle into the silicone membrane, rotating the syringe gently as it is advanced. Rotating the needle helps it to move away from the inner wall of the hub. Do not use excessive force to insert the needle. Be sure to insert the needle fully into the hub before injecting medication. The dead space volume of the catheter is 0.0075ml.
 6. Instill the medication slowly and then remove the needle. Slow injection helps to reduce irritation caused by the medication.
 7. Document the medication on the medication sheet

Procedure – Removal

- When?
 - After 7 DAYS
 - If there is any pain, swelling, leakage, exudate or bleeding at the insertion site, **the catheter should be immediately removed**.
- How?
 1. Always place the new Insuflon (see insertion protocol) before removing the old one to ensure rotation of sites. Rotate insertion sites to avoid tissue damage and the formation of lipohypertrophies.
 2. To remove an Insuflon catheter, carefully peel off the foam pad, apply 2x2 at the insertion site and remove the catheter. Discard the Insuflon after removal.
 3. Document the procedure in the nursing notes