



NURSING PROTOCOL - MUHC

Medication included No Medication included

THIS IS NOT A MEDICAL ORDER

Title:	Nursing Protocol: Insertion, care, medication administration and removal of an Insuflon™ subcutaneous catheter for pediatric patients
This nursing protocol is attached to:	Interprofessional protocol: Selection of skin antiseptic solution for skin preparation for intravascular access and site care in children MUHC Hand Hygiene Policy Tetracaine 4 % (Ametop) medication administration policy EMLA medication administration policy

1. PURPOSE

The purpose of this protocol is to describe the procedure for insertion, care, medication administration and removal of an Insuflon™ subcutaneous catheter.

2. PROFESSIONALS AND PATIENT POPULATION

Pediatric patients requiring subcutaneous injections via an Insuflon™ catheter.

Nurses employed at the MUHC who care for children requiring subcutaneous injections via an Insuflon™ catheter.

Licensed Practice Nurses (LPN) who meet the above criteria and work within the limits of their role and in discussion and collaboration with a nurse.

Candidates to the Profession of Nursing (CPN) who meet the above criteria and work within the limits of their role and under the supervision of a nurse.

3. ELEMENTS OF CLINICAL ACTIVITY

Professionals are responsible to know the limits and extent of their practice as related to the particular protocol.

Indications

An Insuflon™ is an indwelling subcutaneous catheter that can be used to administer a subcutaneous medication. Once the Insuflon™ is inserted, it allows administration of the subcutaneous medication without piercing the skin thus minimizing pain associated with the procedure.

- Medications commonly administered using an Insuflon™ include:
 - Heparin and low molecular weight heparin (dalteparin, enoxaparin)
 - Granulocyte colony stimulating factor (GCSF)
 - Morphine
 - Desmopressin (DDAVP)
 - Cytarabine (Ara-C)

- Interferon

Precautions

- Insulin for the management of diabetes is not usually administered using an indwelling subcutaneous catheter. In certain circumstances, this approach may be used in consultation with the diabetes team.

Contraindications

- An Insuflon™ should not be used to administer a continuous subcutaneous infusion.
- Do not use for SC IVIG administration

Equipment needed:

For Insuflon™ insertion:

- Insuflon™ catheter with dressing (dressing comes in package)
- Antiseptic swab as per the Interprofessional protocol: Selection of skin antiseptic solution for skin preparation for intravascular access and site care in children
- Clean (non-sterile) gloves
- Disinfectant wipes

For Insuflon™ removal:

- Clean (non-sterile) gloves
- Sterile 2 X 2 gauze
- Adhesive bandage

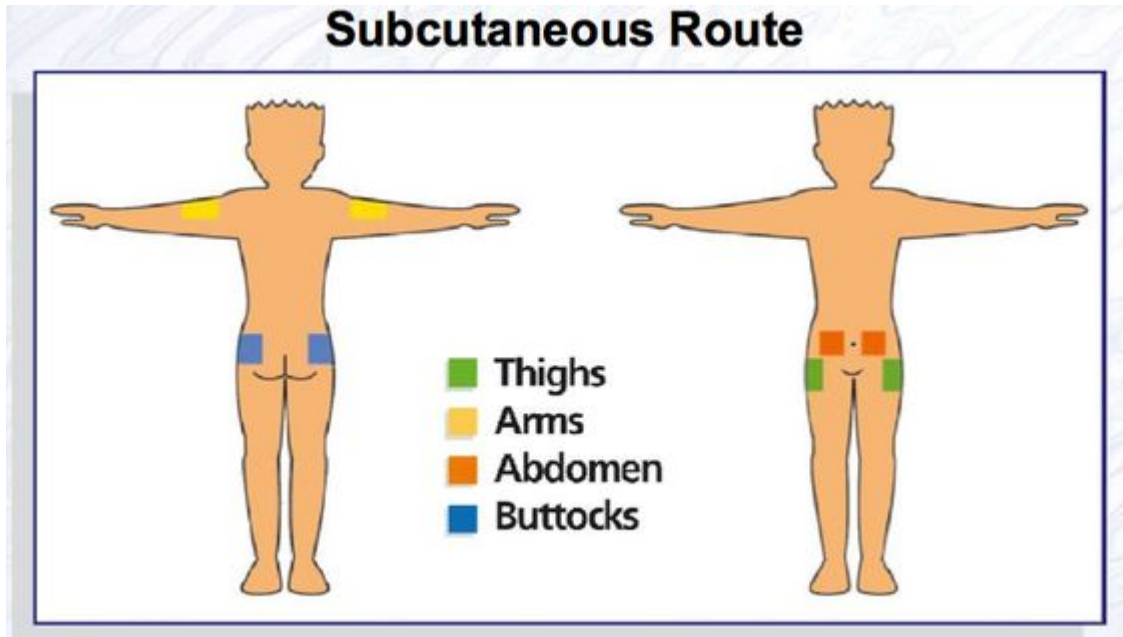
Procedure:

Note: The use of an indwelling subcutaneous catheter such as an Insuflon™ for intermittent medication administration requires the presence of sufficient subcutaneous tissue.

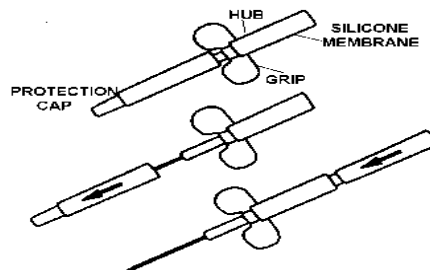
Procedure for insertion:

1. Explain procedure to patient and family.
2. Consider the use of strategies to reduce procedural pain and anxiety such as distraction, comfortable positioning and/or the administration of sucrose. Consider obtaining a medical prescription for a topical anesthetic.
3. Wipe counter surface to be used during the procedure with a disinfectant wipe and allow to dry.
4. Assemble equipment.
5. Perform hand hygiene according to the MUHC hand hygiene policy.
6. Don clean gloves
7. Select an insertion site. Consider child's age and developmental level when selecting a site. The catheter should not be inserted near a scar, bruise, skin lesion or abrasion. Avoid skin folds or areas where clothing may rub or constrict. Ensure selected site is not within a 5 cm radius of the umbilicus. If the patient is to self-administer, position the hub of the Insuflon™ for ease of access for the patient. See Figure 1.

Figure 1: Recommended Insertion Sites



8. A second person may be required to assist with positioning and immobilization for the insertion procedure.
9. Disinfect skin at insertion site using a rubbing motion covering an area larger than the dressing with recommended antiseptic swab and allow to dry.
10. Open Insuflon™ package by peeling back paper cover.
11. Hold catheter hub between thumb and index finger and remove protective cap. Place the protective cap on the end of the catheter hub (see figure 2 below)

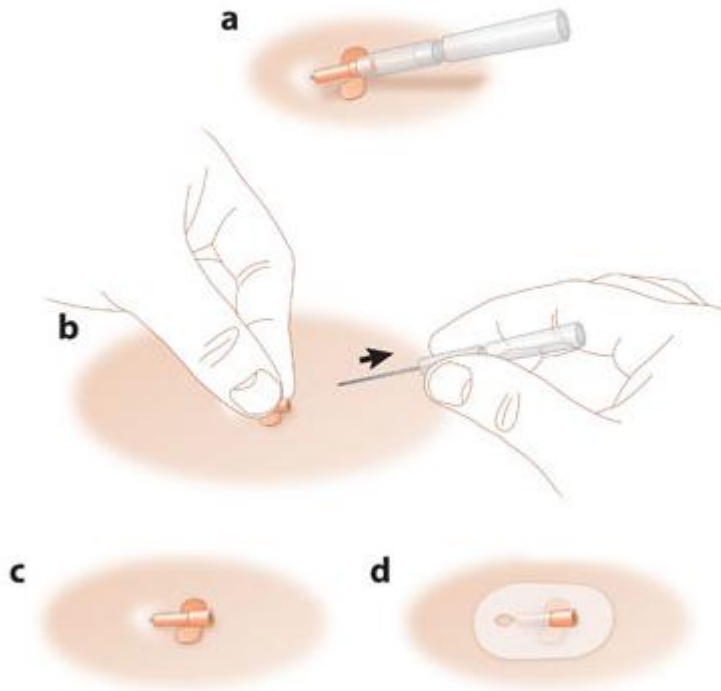


12. Pinch skin at the site of insertion and insert the Insuflon™ at a 20 to 45 degree angle in one smooth, quick movement, with the bevel angled upward (refer to Figure 3).
13. Remove needle by holding the catheter hub firmly and slowly pulling out the needle. Never reinsert the needle to reposition the catheter as reinsertion could shear the catheter. Discard needle in a sharps container.
14. Secure Insuflon™ by applying the adhesive dressing provided starting from the catheter end ensuring that the insertion site is covered and clearly visible. Ensure the catheter hub remains accessible.. Smooth out dressing using gentle pressure to ensure adhesion.

15. Remove gloves and perform hand hygiene.

16. Document location of insertion and tolerance of procedure in the nursing progress notes.

Figure 3: Insuflon™ insertion



Care and maintenance of the Insuflon™ catheter

- Site of insertion should be inspected daily for signs of potential complications. The insertion site must be assessed prior to medication administration. Document site assessments in the nursing progress notes.
- Potential complications include:
 - Dislodgement
 - Signs of infection such as redness, inflammation and/or presence of exudate
 - Blockage or kinking of the catheter
 - Bruising
 - Bleeding
 - Pain
 - Leakage
- Presence of signs of complications requires removal of the Insuflon™ catheter and reinsertion of a new Insuflon™ at a different site.
- In the absence of complications, the site of insertion should be changed every 3 to 7 days. If there are signs of redness, pain, swelling, exudate, or bleeding, the site may need to be changed sooner. Do not exceed a greater than 7 day dwell time. If more frequent changes of insertion site are required (more frequent than every 3 days), consideration should be given to the appropriateness of using an indwelling catheter rather than separate subcutaneous injections.

Medication administration

- The dead space volume of the Insuflon™ catheter is 0.0075 mL. There is no need to flush the catheter before or after medication administration. If more than 10% of the medication is lost due to the catheter dead space, consult the physician and pharmacist. A small amount of flush solution may be required in this rare circumstance.
- If the Insuflon™ catheter is to be removed after insertion, a minimum of 15-30 minutes should elapse prior to removal to ensure adequate absorption of the medication.
- The needle used to inject medication should be the smallest gauge possible (27 gauge or less). Needle length should not exceed 8 mm (3/8 of an inch).
- When inserting the needle into the silicone membrane of the Insuflon catheter, rotate the syringe gently as the needle is advanced. Rotating the needle helps it to move away from the inner wall of the hub.
- Do not administer multiple medications through a single Insuflon™. A separate Insuflon™ should be used for each type of medication injected. If using more than one Insuflon™ for the same patient, the location of the Insuflon™ being used to administer each medication should be clearly documented on the CMAR and the name of the medication for which the Insuflon™ is being used should be written on the dressing.
- Document medication administration on CMAR.

Procedure for removal

1. Explain procedure to patient and family.
2. Perform hand hygiene and don clean gloves.
3. Peel off adhesive dressing beginning at the end of the catheter then remove catheter.
4. Apply pressure to insertion site using a sterile gauze pad.
5. Assess site and apply adhesive bandage.
6. Discard used supplies in the sharp container
7. Remove gloves and perform hand hygiene.
8. Document reason for removal and tolerance of procedure in nursing progress notes.

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NPDQM committee

4. APPROVAL PROCESS

Institutional and professional approval

Committees	Date [yyyy-mm-dd]
<input type="checkbox"/> Pharmacy and Therapeutics Pediatrics (if applicable)	

Committees	Date [yyyy-mm-dd]
<input type="checkbox"/> Adult Pharmacy and Therapeutics (if applicable)	
<input type="checkbox"/> MUHC Adult Site Medication Administration Policy (MASMAP) (if applicable)	
<input type="checkbox"/> MUHC Pediatric Medication Administration Policy (PMAP) (if applicable)	
<input checked="" type="checkbox"/> Clinical Practice Review Committee (if applicable)	2016-06-28
<input type="checkbox"/> Nursing Executive Committee and Council of Nurses (NEC and CN) (if applicable)	
<input type="checkbox"/> Multidisciplinary Council (if applicable)	
<input type="checkbox"/> MUHC Central Executive Committee of Council of Physicians Dentists and Pharmacists Committee (ECPDP) (Obligatory if attached to a collective order) — Final approval Signature of Chairperson: _____	

5. REVIEW DATE

To be updated in maximum of 5 years or sooner if presence of new evidence or need for practice change.

6. REFERENCES

BC Children's Hospital (2013). Indwelling subcutaneous catheter (Insufilon™): Insertion, medication administration and removal.

Insufilon™guide. Intrapump Infusion Systems. Retrieved from www.insufilon.com February 2nd, 2016.

Montreal Children's Hospital Nursing Policy and Procedure Manual Inserting and removing an Insufilon™ subcutaneous catheter.

The Royal Children's Hospital Melbourne (2014) Subcutaneous catheter devices Management of Insufilon™ and BD Saf-T-Intima™ devices.