

**Royal Hospital for Women (RHW)**  
**NEONATAL BUSINESS RULE**  
**COVER SHEET**



**Health**  
South Eastern Sydney  
Local Health District

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<b>NAME OF DOCUMENT</b>	Insuflon™ – Subcutaneous Catheter Device Insertion, Medication Administration and Removal (Neonate)
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<b>SUMMARY</b>	To provide guidelines on the insertion, maintenance, medication administration and removal for neonates requiring an Insuflon™ device.
<b>Key Words</b>	Insuflon™, subcutaneous, injection, medication, neonate

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**Insuflon – Subcutaneous Catheter Device  
Insertion, Medication Administration and  
Removal (Neonate)**

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## Insuflon – Subcutaneous Catheter Device Insertion, Medication Administration and Removal (Neonate)

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### 1 BACKGROUND

Subcutaneous (SC) injections are a common route for medication administration. Indwelling subcutaneous catheters are used for administering subcutaneous medications that require regular dosing, with Insuflon™ being the device used in Newborn Care Centre (NCC). SC catheters can be used for medications such as insulin, heparin and morphine in neonates.

### 2 RESPONSIBILITIES

#### 2.1 Staff (medical, midwifery, Nursing, Allied health)

2.1.1 Medical – to determine and assess neonates that require an Insuflon™ device for medication management. To prescribe medications for administration via Insuflon™.

2.1.2 Nursing – to insert, manage and, administer medication using an Insuflon™ device and to remove the device when no longer needed. To assess and monitor neonates for side effects, pain management and routine observations when an Insuflon™ device is insitu.

### 3 PROCEDURE

#### 3.1 Equipment

- Insuflon™ SC catheter
- 24% Sucrose
- Blue tray or kidney dish
- 1 mL syringe
- 27 gauge needle (grey)
- 0.5% chlorhexidine swab stick (skin)
- 2% chlorhexidine with 70% alcohol swab x 3 (hub)
- Non-sterile gloves
- Sharps bin

##### 3.1.1 Equipment for removal of Insuflon

- Gauze and absorbent dressing (if required)
- Blue tray or kidney dish
- 24% sucrose

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### 3.2 Clinical Practice

#### 3.2.1 Insertion

1. Ensure parents/caregivers are aware of insertion of device prior to commencing.
2. Identify and assess optimal insertion site.

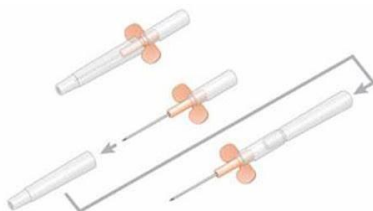
**NOTE:**

Optimal site for neonates is anterior (outer) aspect of the thigh.

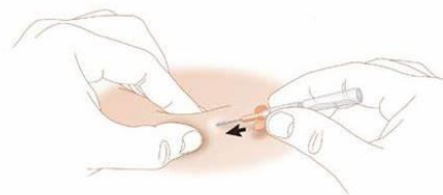
Avoid inserting device into areas of high friction/rubbing, into skin that is hard or oedematous, swollen, red or showing signs of infection.

Do not insert device into abdomen where clothes and wraps are likely to cause excessive shearing to catheter.

3. Collect equipment.
4. Perform hand hygiene.
5. Administer 24% sucrose.
6. Swaddle and position the infant with insertion site exposed.
7. Perform hand hygiene and don non-sterile gloves.
8. Clean insertion site with 0.5% chlorhexidine swab stick and allow to dry for 30 seconds.
9. Hold catheter hub between thumb and index finger and remove protective cap (Picture 1).
10. Place the cap at the rear end of the grip (Picture 1).
11. Pinch skin at the insertion site. Insert catheter at a 20-45° angle to skin (Picture 2).



Picture 1

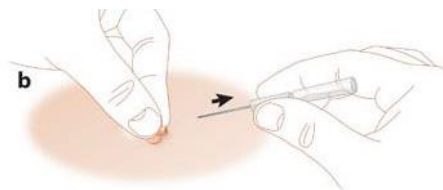


Picture 2

12. Advance the total length of the catheter into skin (Picture 3).
13. Remove the needle from the catheter by holding the hub steady and pulling needle out slowly, leaving catheter in place (Picture 4).



Picture 3



Picture 4

15. Dispose of needle in sharps bin.

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16. Secure the SC catheter with the supplied dressing from the catheter end first (Picture 5). Ensure that the insertion site is visible.



Picture 5

17. Remove gloves, dispose of waste and perform hand hygiene.

**NOTE:**

Insuflon™ can remain in place for up to 7 days. Ensure Insuflon™ is changed on day 7 if neonate requires prolonged SC device management.

### 3.2.2 Medication Administration

1. Collect equipment in clean blue tray.
2. Calculate required volume for administration.
3. Perform hand hygiene.
4. Prepare medication as per local policy and pharmacy guidelines.
5. Draw up medication (diluted or undiluted) into 1 mL syringe.
6. Attach 27 gauge needle to 1 mL syringe and prime needle until reaching the required volume for administration.

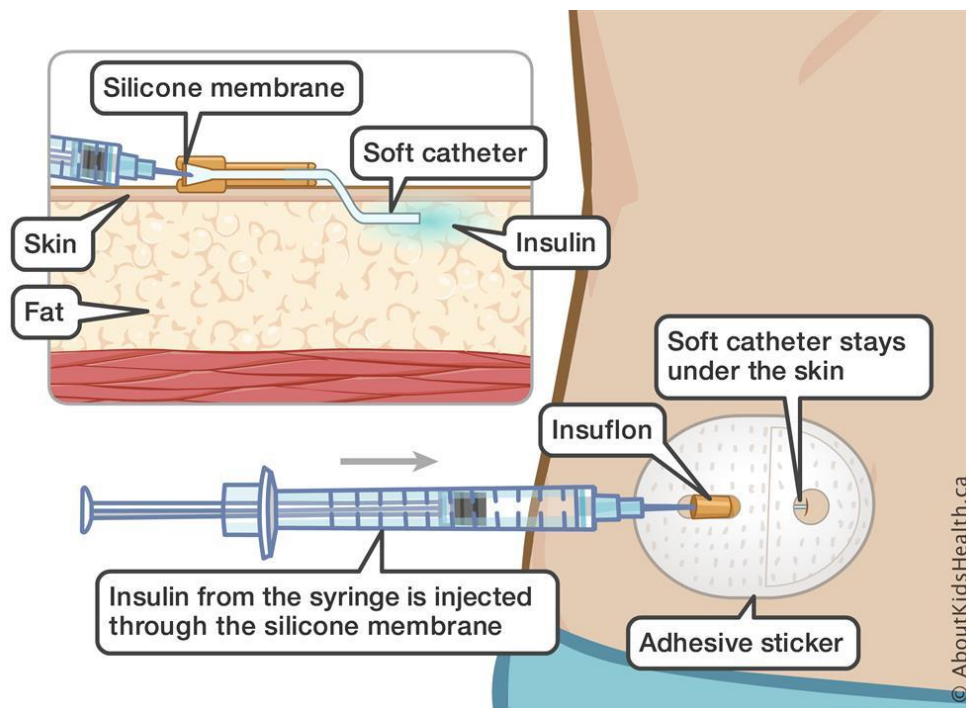
**NOTE:**

The insuflon device has a dead space of 0.0075 mL.  
It is not necessary to flush the Insuflon before or after use if accessing with 27 gauge needle (to accommodate for dead space).

7. Perform hand hygiene and don gloves.
8. Clean catheter hub site with 2% chlorhexidine with 70% alcohol swabs for 15 seconds 3 times (once with each swab) and allow hub site to dry for 30 seconds.
9. Insert 27 gauge needle into silicone membrane at the end of the hub. Needle should be inserted fully into the hub (Picture 6).
  - DO NOT use excessive force to insert needle as this will cause damage to the hub. Gently rotating the syringe will help to advance the needle into the hub.

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Picture 6

10. Inject medication slowly to minimise pain and irritation. Apply pressure to insertion site to reduce bruising.

**NOTE:**

It is recommended that when using the Insuflon™ to administer Clexane, pressure should be applied to the distal tip of the catheter during injection and for 2 minutes post-injection. This helps to minimise pain and bruising associated with this medication and can assist in prolonging the life of the Insuflon catheter.

11. Discard syringe into sharps bin.
12. Dispose of waste and perform hand hygiene.
13. Document procedure in eRIC.

### 3.2.3 Removal of Insuflon

1. Perform hand hygiene and assemble equipment.
2. Explain the procedure to the parents/caregivers (if present).
3. Utilise an aseptic technique and non sterile gloves for removal.
4. Remove the Insuflon™ dressing from the skin.
  - It may be helpful to place a small amount of pressure on the wings of the Insuflon™ as you remove the dressing
5. Withdraw the Insuflon™ from the insertion site in one quick, smooth movement.
6. Apply gauze over insertion site if required to absorb any exudate.

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- If there is an increased amount of exudate from the site place an absorbent dressing onto the site and observe for further exudate or signs of infection such as redness or inflammation
- 7. Dispose of waste in the appropriate containers.
- 8. Perform hand hygiene.
- 9. Document procedure in eRIC.

### NOTE:

When removing the Insuflon™, wait a minimum of 15-30 minutes post medication administration to ensure that adequate time has been given to allow medication absorption. Keep applying pressure to site for 1-2 minutes (may be longer if site has been accessed to deliver Clexane) to ensure bleeding has stopped.

### 3.3 Documentation

- eRIC

### 3.4 Education Notes

- A faster darting action on insertion helps to minimise pain for patient.
- If supplied dressing not available in pack, use a steristrip to secure the hub, followed by a transparent dressing (Tegaderm) to allow visualisation of insertion site.
- Insuflon™ can be inserted to assist with the administration of medications such as insulin, heparin and morphine in neonates. It is recommended that the Insuflon™ device not be used on infants <2kg to ensure adequate subcutaneous tissue in which the device can sit. Considerations should be made when using Insuflon to administer Clexane in regards to rotating devices and bruising/bleeding at the insertion site. Insuflon™ is able to stay in place for up to 7 days, avoiding multiple injections for routine medication.
- In small infants receiving Clexane, consider inserting two Insuflon™ and alternate dose between the two devices to reduce risk of significant bruising.
- Limbs should be alternated when device is re-sited to avoid tissue damage from repeated use.
- Regular inspection of Insuflon™ site should be attended and documented. Site should be inspected prior to and directly after accessing for medication. Site should be assessed for:
  - Redness
  - Infection
  - Exudate
  - Bruising
  - Bleeding
  - Leakage

### 3.5 Abbreviations

SC	Subcutaneous
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### 3.6 CBR Implementation Plan

The revised CBR will be distributed to all medical, nursing and midwifery staff via @health email. The CBR will be discussed at ward meetings, education and patient quality and safety meetings. Education will occur through in-services, open forum and local ward implementation strategies to address changes to practice. The staff are asked to respond to an email or sign an audit sheet in their clinical area to acknowledge they have read and understood the revised CBR. The CBR will be uploaded to the CBR tab on the intranet and staff are informed how to access

### 3.7 Related Policies/procedures

- NSW Health PD2017\_032 Clinical Procedure Safety
- NSW Health PD2017\_013 Infection Prevention and Control Policy
- NSW Health Guideline GL2018\_013 Work Health and Safety - Blood and Body Substances Occupational Exposure Prevention

### 3.8 References

1. Department of Health and Wellbeing. South Australian Neonatal Medication Guidelines Enoxaparin 20mg/0.2mL injection [Internet]. 2019. Accessed 21.5.24  
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## 4 ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

- Considerations for culturally safe and appropriate care provision have been made in the development of this Business Rule and will be accounted for in its implementation.



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- When clinical risks are identified for an Aboriginal and/or Torres Strait Islander woman or family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal liaison officers, health workers or other culturally specific services

### 5 CULTURAL SUPPORT

- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours
- If the woman is from a non-English speaking background, call the interpreter service: NSW Ministry of Health Policy Directive PD2017\_044-Interpreters Standard Procedures for Working with Health Care Interpreters.

### 6 NATIONAL STANDARDS

- Standard 1 Clinical Governance
- Standard 2 Partnering with Consumers
- Standard 3 Preventing and Controlling Infections
- Standard 4 Medication Safety
- Standard 5 Comprehensive Care
- Standard 6 Communicating for Safety
- Standard 8 Recognising and Responding to Acute Deterioration

### 7 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
14/11/2019	1	C Walter (CNS)
2/10/2020	1	Approved by NCC Quality Committee
21/05/2024 1.7.24	2	R Jackson (NE), C Walter (CNE), Endorsed by NCC CBR Committee Endorsed BRGC

