

## **PERIPHERAL INTRAVENOUS CANNULA – INSERTION AND DRESSING**

*This Local Operating Procedure is developed to guide safe clinical practice in Newborn Care Centre (NCC) at The Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this Local Operating Procedure.*

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### **INTRODUCTION**

A peripheral intravenous cannula (PIVC) is inserted into a small peripheral vein to provide access for intravenous fluid administration, medication, blood products and/or blood sampling for diagnostic tests. Sterile technique using aseptic non-touch technique (ANTT) principles must be adhered to throughout the procedure.

#### **1. AIM**

- To insert a PIVC safely and aseptically
- To secure the PIVC correctly

#### **2. PATIENT**

- Newborns

#### **3. STAFF**

- Medical and nursing

#### **4. EQUIPMENT**

- Blue tray
- Dressing pack
- 5mL ampoule of 0.9% Sodium Chloride
- 24g cannula 14mm long
- 2mL slip-lock syringe
- Armboard (appropriate size)
- Needlefree Minibore extension set (Codan)
- Tegaderm film (small)
- Sterile plastic drape (60cm x 45 cm)
- Correctly pre-cut Elastoplast
- Blue-Inco sheet
- Oral Sucrose 24%
- 0.5% Chlorhexidine Maxi Swabstick x2

#### **NOTE:**

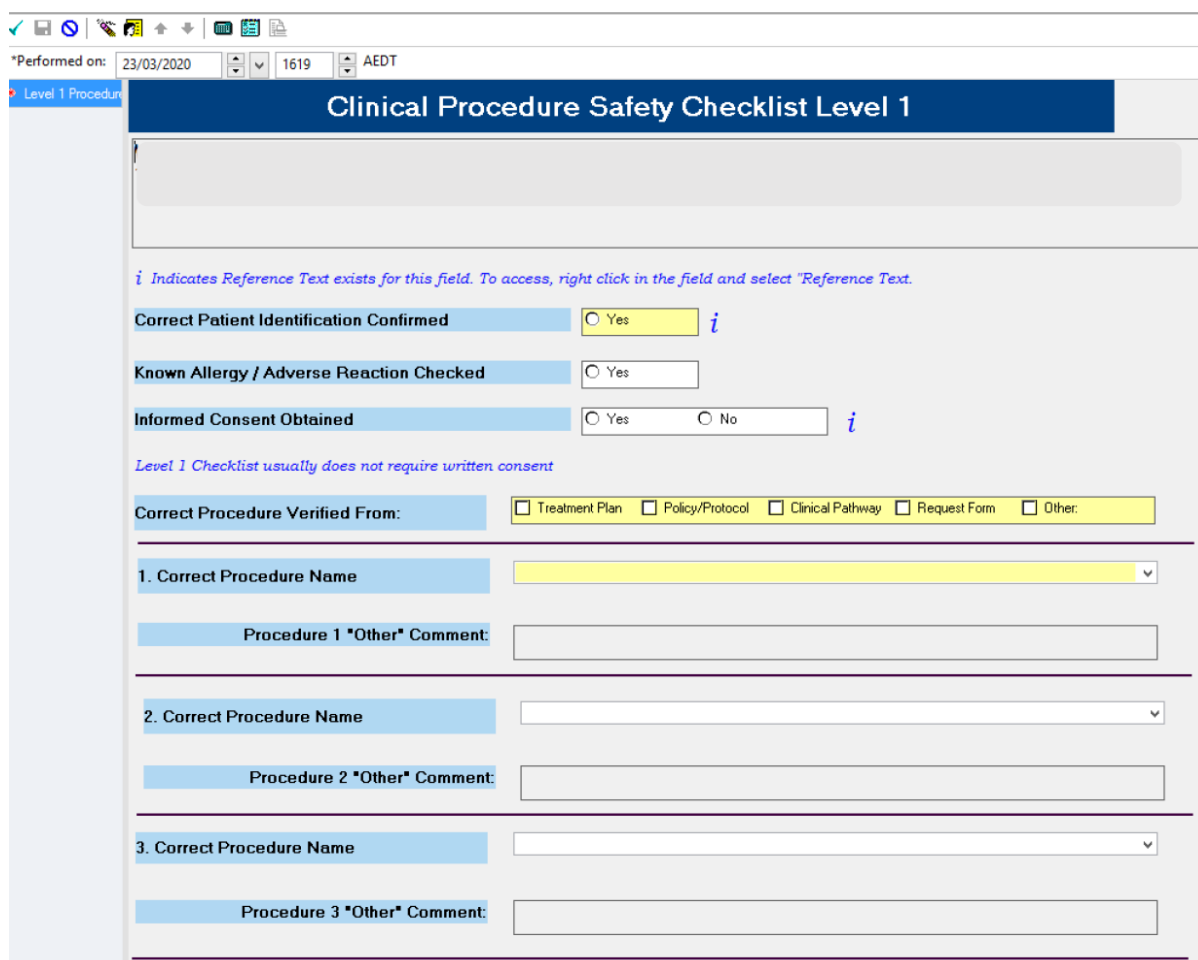
- Consider possible need for peripherally inserted central catheter before using cubital fossa or saphenous veins
- Avoid using a scalp vein if possible
- Maximum attempts to cannulate = 2 at each attempt
- Potentially difficult cannulation may require more attempts and will require discussion with senior medical staff

## PERIPHERAL INTRAVENOUS CANNULA – INSERTION AND DRESSING cont'd

### 5. CLINICAL PRACTICE

#### Procedure:

1. Perform a *Clinical Procedure Safety Check* prior to procedure:
  - Log on to infant's eMR
  - Click on *Chart* on task-bar above infant's information bar (blue bar) for drop-down field
  - Click on *Ad Hoc Charting*
  - Tick in the box for *Clinical Procedure Safety Checklist Level 1*
  - Click on *Chart* at the bottom right of page for the form (Picture 1)
  - Complete checklist before starting the procedure



\*Performed on: 23/03/2020 1619 AEDT

Level 1 Procedure

### Clinical Procedure Safety Checklist Level 1

*i* Indicates Reference Text exists for this field. To access, right click in the field and select "Reference Text."

Correct Patient Identification Confirmed  Yes *i*

Known Allergy / Adverse Reaction Checked  Yes

Informed Consent Obtained  Yes  No *i*

*Level 1 Checklist usually does not require written consent*

Correct Procedure Verified From:  Treatment Plan  Policy/Protocol  Clinical Pathway  Request Form  Other:

1. Correct Procedure Name

Procedure 1 \*Other\* Comment:

2. Correct Procedure Name

Procedure 2 \*Other\* Comment:

3. Correct Procedure Name

Procedure 3 \*Other\* Comment:

Picture 1

**PERIPHERAL INTRAVENOUS CANNULA – INSERTION AND DRESSING cont'd**

1. Use alcohol hand rub (AHR) solution or wash hands.
2. Clean the Blue plastic tray with neutral detergent wipe.
3. Collect equipment in the tray. (Picture 2)
4. Clean the work surface area to be used.
5. Prepare strappings to secure the cannula.
6. Cut Elastoplast to appropriate size and length x 2.
7. Back the middle section of the Elastoplast with cotton wool or Elastoplast. (Pictures 3 & 4)
8. Make a small slit in the middle of one of the 2nd Elastoplast. (Picture 5)



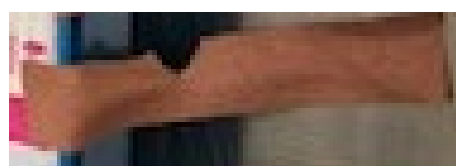
Picture 2



Picture 3



Picture 4

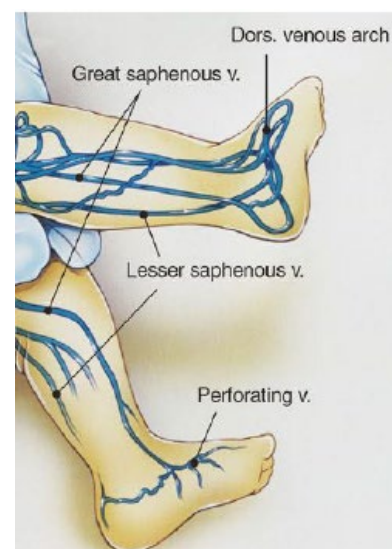
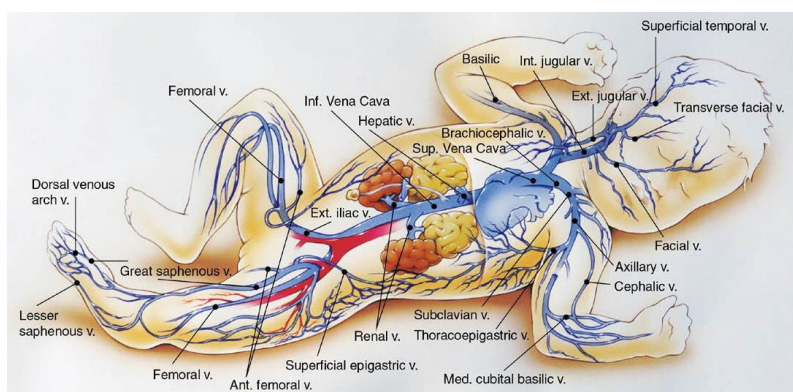


Picture 5

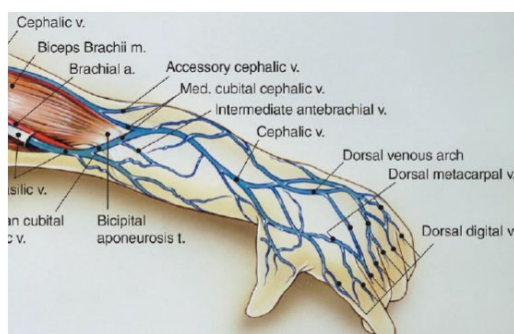
9. Wash hands or use AHR.

## PERIPHERAL INTRAVENOUS CANNULA – INSERTION AND DRESSING cont'd

10. Examine the infant and select an appropriate vein on a limb to cannulate. (Pictures 6)



Pictures 6



Pettit, J. & Mason Wyckoff, M. (1997).  
Peripherally Inserted Central Catheters in  
Guideline for Practice, 2nd. Ed.,  
National Association of Neonatal Nurses, U.S. A.  
4700 W. Lake Avenue, Glenview, IL 60025, p13;  
p18

11. Prepare the infant for cannulation:

- Wrap the infant snugly with the selected limb exposed for the procedure
- Position the infant in a comfortable posture
- Make a fenestrated hole in the blue inco-pad
- Insert the selected limb through the hole of the inco-pad to the axilla or groin
- Position a sharps disposal container close by
- Provide oral sucrose for pain-relief when needed

13. Wash hands.

14. Put sterile gloves on.

15. Prepare equipment for cannulation:

- Open dressing pack onto blue tray
- Open remaining packets of equipment onto dressing pack
- Prime the Needlefree Minibore extension set (Codan) with 0.9% Normal Saline
- Leave syringe attached to the extension set
- Make a small hole in the sterile plastic drape

13. Hold the selected limb for cannulation with a piece of antiseptic saturated gauze.

14. Clean the whole limb with a chlorhexidine swabstick focusing on the insertion site. Repeat cleaning with another swabstick.

15. Insert the limb through the fenestrated sterile plastic drape.

16. Use a sterile gauze to apply tourniquet to the limb.

17. Cannulate the vein whilst protecting key parts and key sites from contamination.

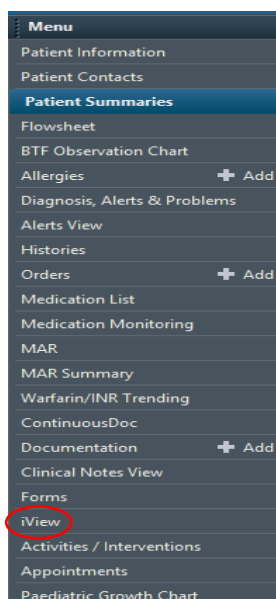
## PERIPHERAL INTRAVENOUS CANNULA – INSERTION AND DRESSING cont'd

18. Remove/loosen tourniquet when cannulation is successful.
19. Remove the stylet and attach the T-extension set to cannula.
20. Dispose sharps correctly.
21. Flush the cannula.
22. Ask an assistant to secure the cannula with tegaderm.
23. Secure the limb to an appropriate size armboard with prepared Elastoplast.
24. Ensure correct alignment of limb to armboard. (Picture 7)

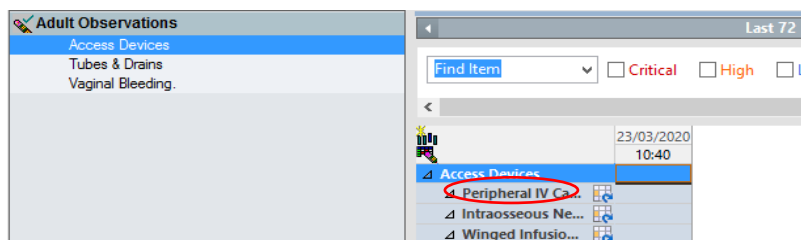


Picture 7

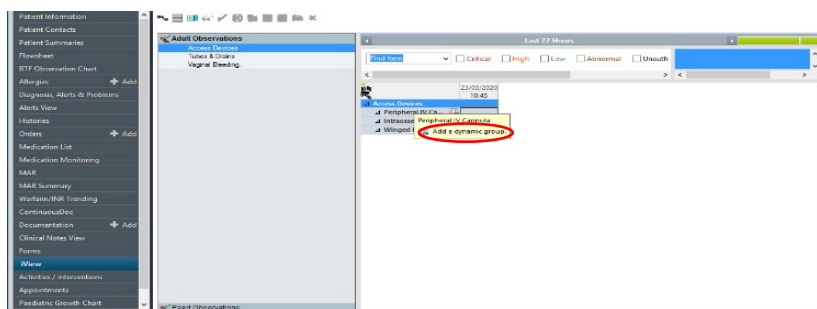
25. Remove and discard drapes and equipment. Remove gloves.
26. Perform Hand Hygiene.
27. Record details of cannulation in eMR:
  - Log on to infant's eMR
  - Click on *Menu* for drop-down field showing *iView* (Picture 8)
  - Click on *iView* on drop-down field showing *Access Devices* (Picture 9)
  - Click on *Access Devices* for drop-down field showing *Add a Dynamic Group* (Picture 10)



Picture 8



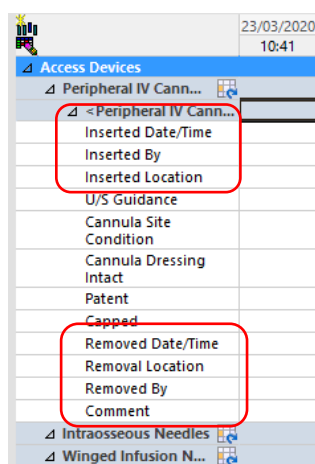
Picture 9



Picture 10

## PERIPHERAL INTRAVENOUS CANNULA – INSERTION AND DRESSING cont'd

- Click on *Add a Dynamic Group* for drop-down field below. (Picture 11)
- Record all information relating to the procedure post insertion in infant's eMR.



Picture 11

### 6. DOCUMENTATION

- eMR
- Neonatal Observation Chart
- NICUS database

### 7. RELATED POLICIES/PROCEDURES/CLINICAL PRACTICE LOP

- Extravasation and infiltration injuries prevention and management
- Intravenous Therapy

### 8. RISK RATING

- Low

### 9. NATIONAL STANDARD

- Standard 1 Clinical Governance
- Standard 3 Preventing and Controlling Healthcare-Associated Infection
- Standard 5 Comprehensive Care
- Standard 6 Communicating for Safety

### 10. ABBREVIATIONS AND DEFINITIONS OF TERMS

|      |                                |      |                             |
|------|--------------------------------|------|-----------------------------|
| NCC  | Newborn Care Centre            | ANTT | Aseptic Non-Touch Technique |
| PIVC | Peripheral Intravenous Cannula | AHR  | Alcohol Hand Rub            |

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LOCAL OPERATING PROCEDURE  
**NEONATAL SERVICES DIVISION**

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Approved by Quality & Patient Safety Committee  
16/4/2020

**PERIPHERAL INTRAVENOUS CANNULA – INSERTION AND DRESSING cont'd**

**11. REFERENCES**

1. NSW Health Policy Directive, 22<sup>nd</sup> September 2017. Clinical Procedure Safety. Doc No. PD2017\_032, File No. CEC 17/238. *Department of Health, NSW.*
2. NSW Department of Health Safety Alert SN: 003/07. Extravasation of IV fluids – care of the cannula site in neonates and children. Document No. PD2007\_07.
3. Royal Children’s Hospital Melbourne; Clinical Practice Guidelines: (2019). Intravenous access – Peripheral. <https://www.rch.org.au/clinicalguide/>

**12. AUTHOR**

|         |            |                        |
|---------|------------|------------------------|
| Primary | 4/11/2005  | RHW NCC LOPs Committee |
| Revised | 03/03/2016 | KB Lindrea (CNC)       |
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