

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



**Health**  
 South Eastern Sydney  
 Local Health District

**Ref: T24/45387**

<b>NAME OF DOCUMENT</b>	Peripherally Inserted Central Catheter (PICC) Line – Removal (Neonate)
<b>TYPE OF DOCUMENT</b>	Clinical Business Rule
<b>DOCUMENT NUMBER</b>	RHW CLIN071
<b>DATE OF PUBLICATION</b>	8 July 2024
<b>RISK RATING</b>	Low
<b>REVIEW DATE</b>	July 2029
<b>FORMER REFERENCE(S)</b>	<p>SESLHD - Aseptic Technique Document Number SESLHDPD/271            CEC - Intravascular Access Devices (IVAD) - Infection Prevention &amp; Control            NSW Health Policy Directive PD2017_013 Infection Prevention and Control Policy            NSW Health Policy Directive PD2020_022 Cleaning of the Healthcare Environment            NSW Health Policy Directive PD2012_069 - Health Care Records - Documentation and Management            NSW Health Policy Directive PD2020_049 Clinical and Related Waste Management for Health Services            NSW Health Policy Directive PD2019_040 Intravascular Access (IVAD) – Infection Prevention and Control</p> <p>Former references-            PICC Removal</p>
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<b>SUMMARY</b>	To guide clinicians on the safe removal of a PICC line
<b>Key Words</b>	PICC line, PICC removal, Neonate, Dressing

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*This Clinical Business Rule (CBR) is developed to guide safe clinical practice at the Royal Hospital for Women (RHW). Individual patient circumstances may mean that practice diverges from this Clinical Business Rule. Using this document outside RHW or its reproduction in whole or part, is subject to acknowledgement that it is the property of RHW and is valid and applicable for use at the time of publication. RHW is not responsible for consequences that may develop from the use of this document outside RHW.*

*Within this document we will use the term woman, this is not to exclude those who give birth and do not identify as female. It is crucial to use the preferred language and terminology as described and guided by each individual person when providing care.*

## **1 BACKGROUND**

PICC lines are removed when they are no longer required, or sepsis is suspected. Removal of a PICC is a two-person standard aseptic technique. PICC can be removed by accredited nursing staff deemed competent in their removal.

## **2 RESPONSIBILITIES**

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

- 2.1.1 Medical – To request PICC line removal from neonates when indicated.
- 2.1.2 Nursing - Accredited nurses to remove PICC lines

## **3 PROCEDURE**

### **3.1 Equipment**

- Sterile gloves x1 pair
- Sterile paper towels – x2 packets
- Sterile plastic drape
- Dressing pack
- Chlorhexidine 0.5% swabsticks x 3
- Blue inco-pad
- Cleaned blue tray

### **3.2 Clinical Practice**

#### **3.2.1 Prior to procedure**

1. Check and confirm with medical officer that the PICC is to be removed, check if antibiotic administration is required prior to removal.
2. Explain the procedure to the parents (if present).
3. Ensure emergency equipment available at the bedside.
4. Collect equipment. (Picture 2)
5. Perform hand hygiene.

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**3.2.2 Preparation**

6. Administer oral sucrose or EBM as required
1. Insert the infant's limb through an "off-centred" fenestrated blue inco-pad. (Picture 1)



Picture 1



Picture 2



Picture 3

8. Ask for assistance to maintain asepsis throughout the procedure.
9. Perform hand hygiene.
10. Clean work surface and blue tray.
11. Cover the blue tray with sterile plastic drape.
12. Open the dressing pack and place required equipment onto the sterile surface.
13. Perform sterile hand wash, dry with sterile paper towels and put sterile gloves on.

**NOTE:**

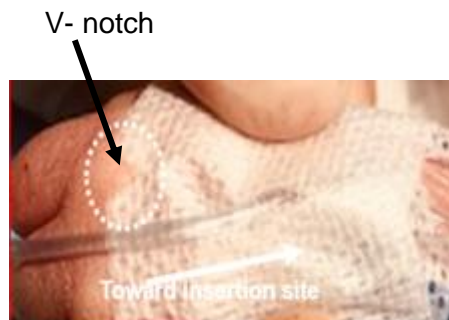
DO NOT turn off the infusion pump during the procedure.

**3.2.3 Removal**

14. Hold infant's PICC limb with a sterile gauze
15. Clean PICC dressing and the whole limb with chlorhexidine 0.5% swabstick and repeat twice (Picture 4)
16. Create a hole in paper drape (Picture 3) and then isolate the limb with drape
17. Peel apart at "V"-notch of SorbaView dressing toward the insertion site (Picture 5)
18. Carefully remove the SorbaView dressing
19. Clean the insertion site with 0.5% chlorhexidine swabstick in a circular motion starting from the centre towards the periphery, then clean the catheter and surrounding skin that was under the dressing (Picture 6)
20. Remove steristrips and discard



Picture 4



Picture 5



Picture 6

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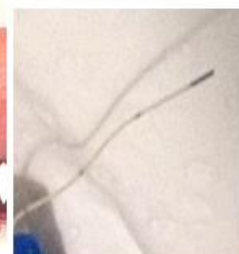
Picture 7



Picture 8



Picture 9



Picture 10

21. Using clean forceps, hold the catheter and pull 1.5 cm away from the insertion site (Picture 7)
22. Re-position forceps on catheter at insertion site (Picture 8) and pull out in 1.5 cm allotment and repeat action until catheter tip is out of the vein (Picture 9)
23. A black marker can be seen at the tip of the catheter (Picture 10)
24. Check catheter tip is intact with assistant.
25. Tip of PICC line ONLY to be sent for culture at the direction of a senior medical officer.

**NOTE:**

If bleeding present after removal-  
Use sterile gauze and apply pressure on insertion site.  
Place dressing on and check the site 15 minutes later.

26. Stop any infusions that are running through the PICC line.
27. Discard equipment and waste.
28. Perform hand hygiene.
29. Document procedure in eRIC.
  - Complete CVAD removal record
  - Stop PICC line timed procedure under 'Skin/ Wounds' tab
  - Stop infusions under 'Medication Administration' tab

**3.3 Documentation**

- eRIC

**3.4 Abbreviations**

PICC	Peripherally Inserted Central Catheter	CVAD	Central Venous Access Device
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**3.5 Education Notes**

- Prior to removing the catheter, check the documented length of catheter inserted.
- One of the most common complications encountered during PICC line removal is breakage during removal. It is important not to remove the PICC line with force.

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- If there is any resistance, do not pull the line with force; ask a more experienced member of staff for assistance with the removal.
- Infection in the bloodstream is a frequent and harmful complication for newborn infants who have a peripherally inserted central catheter. It is important to monitor the PICC line and maintain sterile techniques. If sepsis is suspected, the tip must be sent to the laboratory for culture. One potential method of reducing this risk of bloodstream infection is to remove the catheter within about two weeks after insertion rather than leaving it until no longer required. However, no evidence is available to support this theory.
- A single prophylactic dose of vancomycin prior to PICC line removal might reduce clinical sepsis events in infants.
- Document the line removal including any difficulties with catheter removal and state whether the catheter was visualised to be intact.

**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**

- SESLHD - Aseptic Technique Document Number SESLHDPD/271
- CEC - Intravascular Access Devices (IVAD) - Infection Prevention & Control
- RHW Medical CBR - Antisepsis in the Newborn Care Centre
- RHW Medical CBR- Extravasation and infiltration injuries prevention and management
- RHW Nursing CBR - PICC Insertion and Management
- NSW Health Policy Directive PD2017\_013 Infection Prevention and Control Policy
- NSW Health Policy Directive PD2020\_022 Cleaning of the Healthcare Environment
- NSW Health Policy Directive PD2012\_069 - Health Care Records - Documentation and Management
- NSW Health Policy Directive PD2020\_049 Clinical and Related Waste Management for Health Services
- NSW Health Policy Directive PD2019\_040 Intravascular Access (IVAD) – Infection Prevention and Control

**3.6 References**

1. CEC. Intravascular Access Devices (IVAD) - Infection Prevention & Control. [https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2019\\_040.pdf](https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2019_040.pdf)  
Accessed 23/05/2024



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3. Koppitz J, Ascherl RG, Thome UH, Pulzer F. Incorporating anti-infective drugs into peripherally inserted catheters does not reduce infection rates in neonates. *Front Pediatr.* 2024 Jan 5; 11:1255492.
4. Gordon A, Greenhalgh M, McGuire W. Early planned removal versus expectant management of peripherally inserted central catheters to prevent infection in newborn infants. *Cochrane Database Syst Rev.* 2018 Jun 25;6(6):CD012141.
5. Yu X, Yue S, Wang M, et al. Risk Factors Related to Peripherally Inserted Central Venous Catheter Nonselective Removal in Neonates. *Biomed Res Int.* 2018; 2018:3769376.
6. Pei- Ru Y, Hsin C, Nan-Chang C et al. Reducing catheter related bloodstream infection risk of infant with a prophylactic antibiotic therapy before removing peripherally inserted central catheter: A retrospective study. *Journal of Microbiology, Immunology and Infection.* 2022 December 55;6(2):1318-1325

#### **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.
- 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 5 Comprehensive Care
- Standard 6 Communicating for Safety

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## 7 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
4/11/2005	1	KB Lindrea (CNC)
12/1/2010	2	KB Lindrea (CNC), S Gan (CNS), NCC Policy/Procedure Working Group
24.9.2014	3	J Blaeck (CNS)
28.10.2017	4	KB Lindrea (CNC)
14.11.2019	5	KB Lindrea (CNC)
07.08.2023	6	KB Lindrea (CNC), R Jackson (NE)
23.5.2024 1.7.24	6	Endorsed by NCC CBR Committee Endorsed BRGC