

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



**Health**  
South Eastern Sydney  
Local Health District

|                            |  |
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| <b>NAME OF DOCUMENT</b>    | <i>Blood Culture Collection - Neonate</i>  |
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| <b>SUMMARY</b>             | <i>To collect a blood culture sample aseptically</i>   |

# Royal Hospital for Women (RHW)

## BUSINESS RULE

### Blood Culture Collection - Neonate

This Clinical Business Rule 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 Clinical Business Rule. Using this document outside the Royal Hospital for Women or its reproduction in whole or part, is subject to acknowledgement that it is the property of NCC and is valid and applicable for use at the time of publication. NCC is not responsible for consequences that may develop from the use of this document outside NCC.

#### 1. BACKGROUND

Blood cultures are performed for neonates with suspected sepsis.

#### 2. RESPONSIBILITIES

Medical and Nursing Staff

#### 3. PROCEDURE

##### 3.1 Equipment

- Sterile gloves (PPE)
- Pair of eye goggles (PPE)
- Hat (when collecting blood culture)
- Blue plastic tray
- Blue inco-pad
- 2% chlorhexidine and 70% alcohol swab for blood culture bottle
- Skin cleansing antiseptic solution
- Dressing pack
- Sterile plastic drape: 60cm x 45cm
- 1 x aerobic blood culture bottle
- Blunt Monoject Needleless Med Prep Cannula
- 24g BD Insyte-N cannula OR 24g butterfly
- 18g needle with 2mL syringe attached
- Neutral Detergent



Picture1 - PPE



Picture 2

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#### KEY MESSAGES:

1. All blood culture specimens must be collected aseptically. The ANTT principles must be adhered to throughout the procedure.
2. The skin site for accessing the blood sample must be scrubbed for 30 seconds with the appropriate antiseptic solution and allow to dry for 30 seconds.
3. The tops of all blood culture bottles must be scrubbed with 2% chlorhexidine and 70% alcohol swab and allow to dry for 30 seconds.
4. The amount of blood required for an aerobic blood culture bottle is 0.5 - 4 mL.
5. Do not collect blood specimens for culture from pre-existing peripheral IV line.
6. If blood cultures are performed through existing central vascular devices or arterial line, it is highly recommended that a simultaneous peripheral blood culture is performed.
7. If inserting an IV cannula, blood culture may be taken from the IV cannula as long as it is freshly inserted under aseptic technique and the specimen is immediately transferred to the culture bottle with a new needle.

NOTE: ANTT is a standardized technique for aseptic clinical procedures to prevent microbial contamination of key parts and key sites by ensuring that they are not touched either directly or indirectly.

#### 3.2 Clinical Practice

1. Perform time out.
2. Check patient identification. Inform parent/s or carer of the purpose of the procedure. Explain that the result may not be available for 48 hours.
3. Ensure that a completed pathology blood culture request form is available.
4. Perform hand hygiene (NHHI Moment 1).
5. Examine the infant and identify an appropriate peripheral vein for blood collection. .
6. Wrap and position the infant in a comfortable position with the venepuncture site exposed.
7. Provide pain relief as appropriate.
8. Wash hands (NHHI Moment 4).
9. Clean the work-surface area.
10. Collect required equipment (Picture 1 & 2).
11. Check expiry date on blood culture bottle.
12. Place collected equipment on work-surface.
13. Remove cap from blood culture bottle. Scrub the top with 2% Chlorhexidine with 70% alcohol swab for 30 seconds (Picture 3). Allow to dry for 30 seconds.
14. Clean blue tray with neutral detergent.
15. Open dressing pack and place in the blue tray. Open remaining equipment onto dressing pack field.
16. Don PPE and do an ABHR (NHHI Moment 2). Allow drying. Don sterile gloves.
17. Prepare equipment:
  - Attach drawing-up needle to syringe
  - Make a small hole in the plastic drape to insert the infant's limb through after cleaning
  - Soak 3 x gauze squares with left over antiseptic solution from swab-sticks to use
18. Hold the limb with a wet gauze square. Clean the limb. Repeat. Allow the sampling site to dry.
19. Drape the plastic drape on the cleansed limb. DO NOT RE-PALPATE the vein prior to inserting the cannula.
20. Apply a tourniquet made from a sterile gauze.
21. Cannulate the vein and collect the blood sample.
22. Release the tourniquet during blood sampling.
23. Remove cannula (if it is not required for intravenous infusion).

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24. Apply gauze and pressure to puncture site until bleeding stops.
25. Replace the drawing-up needle on the blood syringe with the Monoject needleless needle.
26. Inoculate the blood culture bottle (Picture 4)



27. Ensure the culture bottle and pathology tubes are correctly labelled with:
  - Infant's name
  - MRN
  - Date and time of collection

**NOTE:** Do not cover any bar code/s or the bottom of the bottle.

28. Place culture bottle in a bio-hazard bag with the request form in the pneumatic air-tube container.
29. Dispose any sharps and syringes in the yellow sharps bin.
30. Remove gloves and perform hand hygiene (NHHI Moment 3).
31. Clean the blue tray and return it to storage.
32. Document procedure in eRIC.

**NOTE:** Start antibiotics as prescribed. Do not delay.

### 3.3 Abbreviations

|     |                               |      |                                  |
|-----|-------------------------------|------|----------------------------------|
| NCC | Newborn Care Centre           | NHHI | National Hand Hygiene Initiative |
| PPE | Personal Protective Equipment | ABHR | Alcohol Based Hand Rub           |

## 4. RELATED BUSINESS RULES AND POLICY DOCUMENTS

- RHW NCC Neonatal Medical Guideline - Antisepsis in the Newborn Care Centre

## 5. CULTURAL SUPPORT

- When clinical risks are identified for an Aboriginal family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal liaison officers, health workers or other culturally specific services.
- For a Culturally and Linguistically Diverse CALD family, notify the nominated cross-cultural health worker during Monday to Friday business hours.

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- If the family 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. IMPLEMENTATION PLAN

This (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.

#### 7. RISK RATING

- Low

#### 8. NATIONAL STANDARDS

- Standard 1 Governance for Safety and quality in Health Service Organisation

#### 9. REVISION AND APPROVAL HISTORY

| Date      | Revision No. | Author and Approval   |
|-----------|--------------|---|
| Dec 2004  | 1            | KB Lindrea (CNC); Primary document approved   |
| Dec 2017  | 2            | KB Lindrea (CNC); Revised and approved NCC LOPs Committee   |
| 21/8/2018 | 3            | KB Lindrea (CNC); Revised and approved NCC LOPs Committee   |
| 3/11/2022 | 4            | D Coll (RN); Revised and approved NCC CBR Committee   |
| 16.2.23   | 5            | Victoria Walton (Manager CPIU). Title updated to specify "neonate" as requested by RHW Safety and Quality Committee prior to endorsement. |