

BLOOD CULTURE COLLECTION

This LOP 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 Operations Procedure (LOP).

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INTRODUCTION

Blood cultures are performed for neonates with suspected sepsis.

1. AIM

To collect a blood culture sample aseptically

2. PATIENT

- Newborns

3. STAFF

- Medical and nursing staff

4. EQUIPMENT

- Sterile gloves (PPE)
- Pair of eye goggles (PPE)
- Blunt 18g needle with 2mL syringe attached
- Monoject Needleless Med Prep Cannula
- 24g BD Insyte cannula OR 24g butterfly
- 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
- Blue plastic tray
- Blue inco-pad
- Neutral detergent



Picture 1



Picture 2

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 lines, 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 standardised 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.

BLOOD CULTURE COLLECTION cont'd

5. CLINICAL PRACTICE

Procedure:

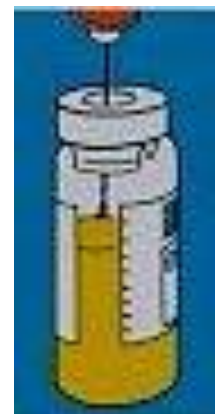
1. Perform time out.
2. Check patient identification. Inform parent/s or carer of the purpose of the procedure. Explain that the result may not be available for 48 hours.
3. Ensure that a completed pathology blood culture request form is available.
4. Perform hand hygiene (Moment 1).
5. Examine the infant 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 (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 30seconds.
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. Put on PPE and do an ABHR (Moment 2). Allow drying. Put on sterile gloves.
17. Prepare equipment (Picture 4):
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 antiseptic solution to use



Picture 3



Picture 4



Picture5

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.

NOTE:

- Sit the drawing needle in the cannula hub and aspirate the blood into the syringe.
- The drawing-up needle MUST remain in the hub during sampling.

23. Remove cannula (if it is not required for intravenous infusion).
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 5)

BLOOD CULTURE COLLECTION cont'd

NOTE:

- The blood culture bottle sucks in the blood.
- Control the syringe-plunger to retain some blood for other blood pathology tubes if required.

27. Ensure the culture bottle and pathology tubes are correctly labelled with:

- Infant's name
- MRN
- Date and time of collection

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 (Moment 3).
31. Clean the blue tray and return it to storage.
32. Document the procedure, the purpose and the venepuncture site in eMR notes.

NOTE:

- Start antibiotics as prescribed. Do not delay.

6. DOCUMENTATION

- eMR
- Neonatal Observation Chart
- NICUS database
- Clinical Procedure Checklist 1

7. RELATED POLICIES/PROCEDURES/CLINICAL PRACTICE LOP

- Intravenous Cannula - Intravenous Cannula Insertion

8. RISK RATING

- Low

9. NATIONAL STANDARD

- Standard 1 Governance for Safety and quality in Health Service Organisation
- Standard 3 Preventing and Controlling Healthcare Associated Infections
- Standard 11 Service Delivery
- Standard 12 Provision of Care

10. ABBREVIATIONS AND DEFINITIONS OF TERMS

NCC	Newborn Care Centre	ANTT	Aseptic Non-Touch Technique
LOP	Local Operations Procedure	ABHR	Alcohol-based hand rub
PPE	Personal Protective Equipment	IV	Intravenous
MRN	Medical Record Number		

11. REFERENCES

Nil

12. AUTHOR

Primary	December 2004	CNC B Lindrea
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