

ARTERIAL LINE – BLOOD SAMPLING

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1. AIM

- To safely and correctly obtain a blood sample from an arterial line

2. PATIENT

- Newborns

3. STAFF

- Medical and nursing staff

4. EQUIPMENT

- 2 mL syringe/arterial blood gas syringe
- Shielded blunt cannula
- Antiseptic wipes x 2 (2% chlorhexidine gluconate & 70% isopropyl alcohol [SoluPrep])
- Non-sterile gloves

NOTE:

This is a standard Aseptic Non-Touch Technique (ANTT)

CLINICAL PRACTICE

Procedure:

1. Wash hands.
2. Put gloves on.
3. Scrub the sampling port for 30 seconds with antiseptic wipe and allow 30 seconds air-drying.
4. Remove white cap (do not discard) and attach the shielded blunt cannula (Picture 1) to blood sampling syringe. (Picture 2) Return to sterile package until ready to use. (Picture 3)



Picture 1



Picture 2



Picture 3

5. Unlock and slowly pull back plunger on reservoir (no faster than 0.5mL/second). (Picture 4)



Picture 4

ARTERIAL LINE – BLOOD SAMPLING cont'd

6. Pull blood to the black demarcation line on the infant's infusion line. (Pictures 5,6)



Picture 5



Picture 6

7. Turn the one way stopcock at the tip of the reservoir "off". (Picture 4)
8. Puncture the sampling port with the shielded blunt cannula. (Picture 7,8) Draw back the amount of blood sample required.



Picture 7



Picture 8

NOTE:

The shielded blood cannula must be attached with a syringe before inserting it on the sampling port.

9. Disconnect syringe and shielded blunt cannula device together from the sampling port. (Picture 9)



Picture 9

ARTERIAL LINE – BLOOD SAMPLING cont'd

10. Remove the shielded blunt cannula from the syringe. (Picture 10)



Picture 10

11. Turn the one way stopcock at the tip of the reservoir "on". (Picture 11)
12. Return patient's blood in the arterial line slowly by pressing the reservoir plunger to locked position (no faster than 0.5m/second). (Picture 11)



Picture 11

13. Clear any residual blood from patient line by bolusing 0.5 ml of the arterial infusion. Press the "bolus" button on the syringe driver and squeezing the flush device (yellow "wings") simultaneously. (Picture 12) Observe for blanching of the skin when bolusing arterial infusion.



Picture 12

14. Clean the sampling port again with antiseptic wipe.
15. Discard waste appropriately.
16. Remove gloves and perform hand hygiene.

ARTERIAL LINE – BLOOD SAMPLING cont'd

5. RELATED POLICIES/PROCEDURES/CLINICAL PRACTICE LOP

- Arterial Line – Set Up and Priming

6. RISK RATING

- Low

7. NATIONAL STANDARD

- Standard 1: Governance for Safety and Quality in Health Service Organisation
- Standard 12: Provision of Care

8. REFERENCES

- ANTT® Clinical Practice Framework (2017). <http://antt.org/>
- ICU Medical Aust. Pty. Ltd. (2013). Obtaining a Blood Sample using SAFESET. <http://www.icumed.com/>

9. AUTHOR

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Revised	22/3/18	NCC LOPs Committee

REVISION & APPROVAL HISTORY

Reviewed March 2018

Approved NCC Quality Committee 2/12/13

FOR REVIEW :