

Department:	Maternal Intensive Care Unit		
Document:	Departmental Policy and Procedure		
Title:	Sampling and Medication via Central Venous Catheter in Maternal Intensive Care Unit		
Applies To:	All Maternity Intensive Care Unit Staff		
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1. PURPOSE:

- 1.1 To provide MICU nurse a guideline during blood sampling and medication through central line.
- 1.2 To ensure high quality of nursing practice.
- 1.3 To enable the nurses to function in an effective and safe manner.

2. DEFINITIONS:

- 2.1 **Medication Administration** – refers to the process of living medication, directly into a central line. Method of administering medication may include giving the medication by rapid injection (push) or giving the medication continuously giving the medication intermittently over a specific amount of time.

3. POLICY:

- 3.1 All MICU nurses are competent to give medication and draw a blood sample from central line.
- 3.2 Sterile technique must be maintained throughout the procedure.

4. PROCEDURE:

4.1 Drawing blood from Central Line

4.1.1 Preparation

- 4.1.1.1 Check physician's order and the medication administration sheet.
- 4.1.1.2 Check the patient identification and Ask patient to state name.
- 4.1.1.3 Explain the procedure to the patient.

4.1.2 Procedure:

- 4.1.2.1 Wash hands and don mask, gown and gloves.
- 4.1.2.2 If fluid is infusing through catheter, turn off infusing for at least 1 minute prior to drawing blood specimen.
- 4.1.2.3 Suspend the CVP monitoring alarm if monitoring is being used.
- 4.1.2.4 Select the largest port for the drawing of blood. Open a sterile 4x4 gauze pad keep under the stopcock to protect from blood splash. Remove the dead-end cap from the stopcock.
- 4.1.2.5 Clean the access port with alcohol swab and allow it to dry.
- 4.1.2.6 Flush catheter with 5-10 ml normal saline and if pressure flushing system is need activate the fast-flush release to check the patency of lumen. (Take care if there is no any infusion ongoing don't flush, aspirate first. If there is any blood clot in the lumen it will come out).
- 4.1.2.7 Insert the syringe for the discard sample into the stopcock. (This sample is discarded because it is diluted with flush solution). In most cases, you'll withdraw 5 to 10 ml through a 5- or 10-ml syringe.
- 4.1.2.8 Next, turn the stopcock off to the flush solution. Slowly retract the syringe to

withdraw the discarded sample. Then turn the stopcock halfway back to the open position to close the system in all direction.

- 4.1.2.9 Remove and discard the syringe, and dispose the blood in the syringe, observing standard precautions.
- 4.1.2.10 Place the syringe in the laboratory sample in the stopcock, turn the stopcock off to the flush solution, and slowly withdraw the required amount of blood. For each additional sample required, repeat this procedure. If the physician has ordered coagulation tests, obtain blood for this sample from the final syringe to prevent dilution from the flush device.
- 4.1.2.11 After you've obtained blood for the final sample, turn the stopcock off to the syringe and remove the syringe. Activate the fast-flush release to clear the tubing. Then turn off the stopcock to the patient, and repeat the fast flush to clear the stopcock port. (If not IV infusion ongoing flush with 5-10 ml normal saline).
- 4.1.2.12 Turn the stopcock off to the stopcock port, and replace the dead-end cap. Reactivate the monitor alarms. Attach needles to the filled syringes, and transfer the blood samples to the appropriate vacutainers, labelling them according to the facility policy. Send all samples to the laboratory with appropriate documentation.
- 4.1.2.13 Check the monitor for return of the central line wave form and pressure reading.
- 4.1.2.14 Send the specimen for analysis.
- 4.1.2.15 Discard used supplies in the appropriate receptacle and wash hand.
Document the procedure in the nursing note.

4.2 For Medication

4.2.1 Preparation:

- 4.2.1.1 Check Physician's order and the medication administration sheet.
- 4.2.1.2 Check patient ID band and ask patient to state name.
- 4.2.1.3 Explain the procedure to the patient.
- 4.2.1.4 Prepare medication as order by physician.
- 4.2.1.5 Obtain medication, check label on individual medication package with the patient medication error for:
 - 4.2.1.5.1 Correct Medication
 - 4.2.1.5.2 Correct dose and frequency
 - 4.2.1.5.3 Expiration date
 - 4.2.1.5.4 Route of administration
- 4.2.1.6 Proper administration should follow the seven "rights" of medication administration to avoid medication errors: be sure it is the right patient, the right drug, the right dose, the right time, and the right route before giving any medication.

4.2.2 Procedure:

- 4.2.2.1 Wash hands and don mask, gown and gloves.
- 4.2.2.2 Clean the access port with alcohol swab and allow it to dry.
- 4.2.2.3 Select the port for IV medication. Open the sterile 4x4 gauze keep under the stopcock to protect from the blood splash. Remove the dead-end cap from the stopcock.
- 4.2.2.4 If there is no any infusion ongoing don't flush, aspirate first using every little force to check the lumen patency and also if there is any blood clot in the lumen it will come out then flush catheter with 5-10 ml normal saline.
- 4.2.2.5 If using pressure flushing system activate the fast-flush release to check the patency of the lumen.
- 4.2.2.6 Maintain positive pressure when withdrawing flush syringe by clamping lumen before removing syringe or by maintaining pressure on syringe plunger before clamp.
- 4.2.2.7 Swab access port with antimicrobial swab.
- 4.2.2.8 For IV push medication: Attach prefilled medication syringe into access port and give medication accordingly.
- 4.2.2.9 For continuous IV infusion insert prime IV tubing into access port. Set infusion

- delivery pumps to prescribe rate.
- 4.2.2.10 Ensure central line dressing is clean and intact.
 - 4.2.2.11 Check the monitor for the central line wave form and pressure reading.
 - 4.2.2.12 Discard used supplies in the appropriate receptacle and wash hand.
 - 4.2.2.13 Document the procedure in the nursing note.
 - 4.2.2.14 Document on the Medication Administration Record:
 - 4.2.2.14.1 Time medication is given.
 - 4.2.2.14.2 Injection code when applicable.
 - 4.2.2.14.3 Your initials.
 - 4.2.2.14.4 Signature (one time only).
 - 4.2.2.15 Record patient's response to PRN medications or drug reaction to medication must be reported to the physician, and an Adverse Drug Reaction Form (electronic) will be completed and sent to pharmacy.

5. MATERIAL AND EQUIPMENT:

N/A

6. RESPONSIBILITIES:

- 6.1 Physician
- 6.2 Nurse








7. APPENDICES:

N/A

8. REFERENCES:

- 8.1 Guidelines for Adult ICU Care/ Ministry of Health, General Directorate of Health Centers- Riyadh, 2013

9. APPROVALS:

	Name	Title	Signature	Date
Prepared by:	Ms. Doha Al Anizi	Maternal Intensive Care Unit Head Nurse		January 12, 2025
Prepared by:	Dr. Mogahid Mahmoud Ali	Maternal Intensive Care Unit Quality Coordinator		January 12, 2025
Reviewed by:	Mr. Sabah Turayhib Al - Harbi	Director of Nursing		January 14, 2025
Reviewed by:	Dr. Abdelghany Ibrahim	Head of the Department Anesthesia		January 15, 2025
Reviewed by:	Mr. Abdulelah Ayed Al - Mutairi	QM&PS Director		January 16, 2025
Reviewed by:	Dr. Tamer Naguib	Medical Director		January 19, 2025
Approved by:	Mr. Fahad Hezam Al - Shammari	Hospital Director		January 26, 2025