



Paediatric Intensive Care unit Nursing Procedure: Urine Specimen Collection

Definition of specimen collection:

The collection of tissue or body fluids for laboratory investigations to aid diagnosis and/or treatment of medical conditions.

Universal Factors

Rationale

<p>Specimen collection should be undertaken in a sterile environment</p>	<p>To prevent contamination of specimen and cross infection of the patient.</p>
<p>Explain procedure to child and parent before commencing.</p>	<p>To alleviate stress and anxiety.</p>
<p>Ensure specimen containers are correctly labeled with patients name, hospital number and type of specimen. Also ensure that they are accompanied with laboratory request form which has been filled out correctly with the child's history and any medication that may have been taken.</p>	<p>To help prevent mistakes and ensure correct investigations are carried out. Some medication can affect the specimen and give abnormal results.</p>

In PICU there are 2 ways in which we usually collect urine samples, depending on whether or not the patient is catheterized. If the patient has no catheter in situ, then we use the "clean catch" or "bag" method and if the patient is catheterized we can obtain a sterile sample from the rubber bung area of the catheter tubing.

Clean catch or bag method

Equipment needed,

- Sterile urine bag
- Sterile gauze
- Sterile water
- Sterile gloves

Procedure

Action	Rationale
Wash hands thoroughly and put on sterile gloves.	To prevent cross infection and contamination.
Clean genital area with sterile water. Wipe once from front to back, then discard gauze and use new piece for next wipe, continue this method until area is clean.	To prevent contamination of urine sample.
For females, affix urine bag over genital area, starting from the perineum and working upwards. For males, place urine bag over the penis. Ensure there is a tight seal all around the bag.	Ensure tight seal to avoid leakage or/and contamination by faeces etc.
Check urine bag frequently and remove as soon as urine has been passed.	To prevent any leakage and to ensure sample is as fresh as possible for analysis.

Catheter method

Equipment needed,

- Sterile field
- Alcowipe
- Sterile gloves
- Sterile needle on a 10ml syringe
- Sterile universal container.

Procedure

Action Rationale

<p>Explain procedure to child and/or parents.</p> <p>Using an aseptic technique, clean the rubber bung of the catheter tubing with alcohol swab and allow to dry.</p> <p>Using a sterile syringe and needle, insert the needle into the rubber bung at an angle of 45 degrees.</p> <p>Gently withdraw the urine into the syringe.</p> <p>Remove the needle and syringe, wipe the area with the alcohol swab and allow to air dry.</p> <p>Place the urine into a sterile universal container.</p> <p>Discard needle and syringe into a sharps container.</p>	<p>To alleviate stress and anxiety.</p> <p>To prevent contamination of urine sample.</p> <p>To minimize penetration of the wall of the tubing and subsequent needlestick injury.</p> <p>To prevent any contamination entering the catheter via the bung. The bung will then self seal.</p> <p>To ensure sterile conditions.</p> <p>To prevent the occurrence of a needlestick injury.</p>
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References,

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