# Suprapubic Aspiration of Urine

**Pre-Procedure**

- The child should not have passed urine in the previous 60 minutes prior to the procedure. If so, feed the child and wait 30-60 minutes.
- If the child is stable it is preferable to do the suprapubic aspiration prior to carrying out any other invasive procedures.

**General**

- Suprapubic aspiration of urine is a simple and safe technique for obtaining an uncontaminated specimen of urine in children.
- In stable children, perform first before other invasive procedures like bloods and lumbar puncture (in case the child voids).
- The procedure should be done quickly once you expose the genitals, so prepare everything before you undo the nappy.
- Standard aseptic non touch technique with sterile gloves is required.

**Indications**

- Children < 6 months of age who need a urine culture.
- Children < 1 year old who need a repeat urine culture because the previous urine culture is contaminated.

**Contraindications**

- Urinated in the previous 1 hour.
- Distended abdomen.
• Known coagulopathy
• Skin infection over puncture site
• Urogenital abnormality

**Preparation**

**Staff**

• Doctor to carry out procedure
• Nurse to hold the child throughout procedure
• Assistant to catch urine

**Equipment**

SPA equipment

• 3ml or 5ml syringe
• Alcohol wipe
• 23 gauge needle
• Sterile gloves
• Urine container (yellow top)
• IV pressure pad (‘dot’)

**Procedure**

**Medications**

• Can give a small amount of sucrose to infants prior to the procedure

**Positioning and technique**

• Confirm the patient has not passed urine in the last 60 minutes. If they have then give a feed and wait for 30-60 minutes.
• The child lies supine in a frog leg position
• The nurse is to hold the child steady and restrain the legs in an extended position
• An assistant is to be ready to catch the urine with an open urine jar, if the patient
passes urine

**Check the bladder size /volume** using one of the following 3 methods:

1. **Curvilinear ultrasound probe** to check bladder volume:
   - Transverse view, depth (D) 2-3 cm or Transverse diameter (T) 3.5cm (recommended method) or
2. **Bladder scanner** (minimum 20ml) - scan 3 times to confirm, or
3. **Gently percuss the bladder**, fundus should be 1-2 finger breadths above the pubic symphysis (PS)

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1. **Wipe the skin** from the pubis to umbilicus in a circular motion 5cm diameter with the alcohol wipe
   - ![check]

2. **Insert the needle** perpendicular to the skin at 1-2cm superior to the pubic symphysis (the suprapubic crease level) at midline
   - ![check]

3. **Aspirate gently** after the needle goes through the skin. Remember to aspirate as you *insert*, as well as when you *withdraw* the needle.

4. **Advance** the needle 2-3cm deep **if needed** (i.e. whole length of the 23G needle)
   - If urine is not obtained, do not remove the needle, but withdraw it to a subcutaneous layer and redirect it slightly more superior, and then more inferior to the pubic symphysis if needed
   - The procedure should be abandoned if still unsuccessful and an alternate method of urine collection should be considered
   - Further attempts at **SPA** should be at the discretion of the Senior Doctor on duty

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**Post-Procedure**

**Complications**

All these complications are rare:

- Transient, gross or microscopic haematuria
- Intestinal perforation
- Bladder haematuria
- Abdominal wall abscess
More

Tags

aspiration, bladder, culture, febrile, septic, spa, suprapubic, tap, urine, uti

References


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