GUIDELINE

Suprapubic Aspiration of Urine

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<th>Scope (Staff):</th>
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<td>Scope (Area):</td>
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This document should be read in conjunction with this DISCLAIMER
http://kidshealthwa.com/about/disclaimer/

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 preferrable 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

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

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

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

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**More**

**Tags**

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

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