



HEALTH HOLDING

HAFER ALBATIN HEALTH
CLUSTER
MATERNITY AND
CHILDREN HOSPITAL

Department:	Neonatal Intensive Care Unit (NICU)		
Document:	Departmental Policy and Procedure		
Title:	Supra Pubic Urine Aspiration in Neonates		
Applies To:	All NICU Staff		
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1. PURPOSE:

- 1.1 Collect urine specimen that can reliably indicate or rule out urinary tract infection. Suprapubic bladder aspiration is considered the most reliable method of obtaining urine for culture in infants. Urinary bladder catheterization is an acceptable alternative method particularly if suprapubic collection is contraindicated.

2. DEFINITIONS:

- 2.1 Urine is directly aspirated from the bladder via a sterile needle introduced through the suprapubic area.

3. POLICY:

- 3.1 The procedure is done under complete aseptic technique.
- 3.2 Indications:
 - 3.2.1 To obtain urine for culture. Any number of bacteria in urine obtained by this method is considered significant and likely to be indicative of urinary tract infection. Contamination with skin flora can occur, with a false-positive rate of 1% reported, but should be avoidable with careful skin preparation.
- 3.3 Contraindications:
 - 3.3.1 Empty bladder as a result of recent void or dehydration. A full bladder is essential for success of the procedure and avoidance of complications.
 - 3.3.2 Skin infection over the puncture site.
 - 3.3.3 Distention or enlargement of abdominal viscera (eg. dilated loops of bowel, massive hepatomegaly).
 - 3.3.4 Genitourinary anomaly or enlargement of pelvic structures (e.g. ovarian cyst, hydrometrocolpos)
 - 3.3.5 Uncorrected thrombocytopenia or bleeding diathesis.

4. PROCEDURE:

- 4.1 Technique:
 - 4.1.1 Identify patient using 2 patient identifier (Four name for Saudi or Complete name for Non-Saudi and Medical Record Number (MRN)).
 - 4.1.2 Determine the presence of urine in the bladder.
 - 4.1.2.1 Verify that the diaper has been dry for at least 1 hour
 - 4.1.2.2 Palpate or percuss the bladder
 - 4.1.2.3 Optionally, use portable ultrasound guidance
 - 4.1.3 Wash hands thoroughly for two minutes (aseptic wash) and put on sterile gloves.
 - 4.1.4 Clean the suprapubic area (including the area over pubic bone) with povidone iodine. Let it dry for at least 30 seconds (remove it after procedure).
 - 4.1.5 Cover the area with sterile open hole drape.
 - 4.1.6 Palpate the symphysis pubis, and insert the needle or 23 gauge butterfly (with syringe attached) just superior to (up to 1 cm above) the pubic symphysis in the midline. Maintain the needle perpendicular to table or directed slightly caudad.(appendices 7.1)

- 4.1.7 Advance the needle 2 to 3 cm. A slight decrease in resistance may be felt when the bladder is penetrated.
- 4.1.8 Aspirate gently as the needle is slowly advanced until urine enters the syringe. Do not advance the needle more than 1 inch.
 - 4.1.8.1 Withdraw the needle if no urine is obtained
 - 4.1.8.2 Do not probe with the needle or attempt to redirect it to obtain urine
- 4.1.9 Withdraw the needle after urine is obtained.
- 4.1.10 Apply gentle pressure over the puncture site with sterile gauze to stop any bleeding.
- 4.1.11 Remove the needle and place a sterile cap on the syringe or transfer urine to a sterile container to send for culture.
- 4.1.12 Clean the antiseptic with sterile water or sterile saline.

4.2 Complications:

Minor transient haematuria is the most commonly reported complication, occurring in 0.6% to 10% of cases. With proper technique, serious complications are very rare, occurring in 0.20% of cases or less

- 4.2.1 Bleeding
 - 4.2.1.1 Transient macroscopic haematuria (blood-tinged urine).
 - 4.2.1.2 Gross haematuria
 - 4.2.1.3 Abdominal wall hematoma
 - 4.2.1.4 Bladder wall hematoma
 - 4.2.1.5 Pelvic hematoma
- 4.2.2 Infection
 - 4.2.2.1 Abdominal wall abscess.
 - 4.2.2.2 Sepsis
 - 4.2.2.3 Osteomyelitis of pubic bone.
- 4.2.3 Perforation of bowel or pelvic organ.

5. MATERIAL AND EQUIPMENT:

- 5.1 Sterile gloves,
- 5.2 Wear sterile gown and surgical mask as indicated.
- 5.3 Cup with povidone antiseptic solution.
- 5.4 Sterile normal saline or water (to clean povidone).
- 5.5 Gauze or cotton ball swabs.
- 5.6 Sterile open hole drape.
- 5.7 22 to 23 gauge needle and syringe, or 23 gauge butterfly needle.
- 5.8 Sterile specimen container with cover.

6. RESPONSIBILITIES:

- 6.1 Physician
- 6.2 NICU nurse

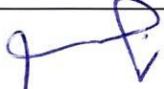
7. APPENDICES:

- 7.1 Supra pubic puncture site

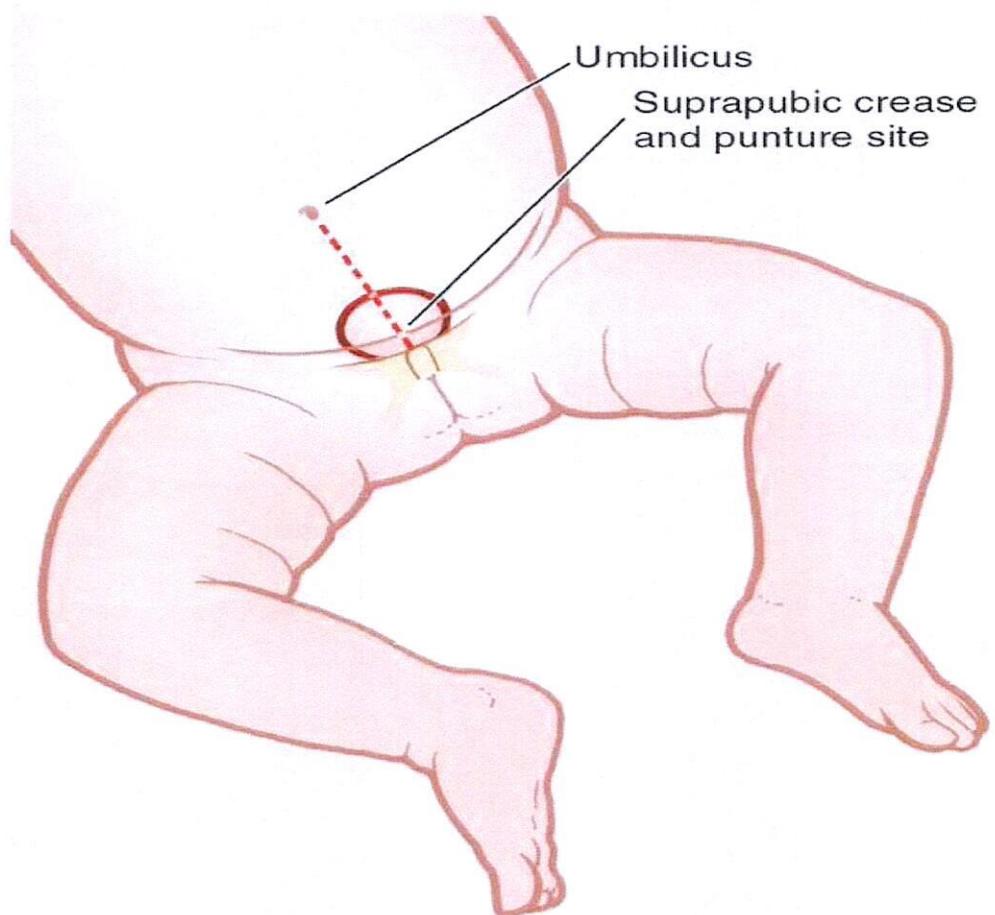
8. REFERENCES:

- 8.1 Woods SL. Suprapubic bladder aspiration. Atlas of procedures in neonatology. MacDonald MG. 2007 108-111
- 8.2 Ringer SA et al., Common Neonatal Procedures. Manual of Neonatal Care. Cloherty JP. (2012.853.

9. APPROVALS:

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Appendices 7.1:Supra Pubic Puncture Site:



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