LRI Children's Hospital

COLLECTING A URINE SPECIMEN (INCLUDING CLEAN CATCH) FROM A CHILD

Staff relevant to:	Clinical staff working within the UHL Children's Hospital.
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1. Introduction and who this guideline applies to

A urine specimen suitable for laboratory testing will be obtained correctly with minimal trauma to the child. A clean catch urine sample is the recommended method for urine collection.

A urine sample should be obtained for children with fever without a clear alternative focus or have symptoms and signs suggestive of a UTI.

When it is not possible to collect urine by non-invasive methods, urethral catheter or supra pubic aspirate (under ultrasound guidance) should be considered as per NICE CG54 2018: https://pathways.nice.org.uk/pathways/urinary-tract-infections

Related documents:

Urethral Catheterisation for Male and Female Children UHL Childrens Hospital Guideline

This guideline has been developed to support the practice of

- Qualified competent Children's Nurses experienced in obtaining urine samples from children.
- Competent Health Care Assistants experienced in obtaining urine samples.

2. Structure/Resources

- Supply of sterile urine collection packs, J trays, investigation request forms, specimen containers.
- Facilities to maintain hygiene, cotton wool, water, non-sterile gloves.

2.1 Clean catch (child who is toilet trained)

Action	Rationale
Explain procedure to child and parent and offer to assist.	To ensure consent and concordance with procedure and integrity of sample.
Ensure child has privacy and parental assistance as required.	To maintain privacy and dignity
Provide child with a sterile 'J' tray and request that the child passes urine into it. The tray can be placed inside a bedpan placed under toilet seat to make it easier for the child.	To ensure a clean catch
Provide child / parent with water and a towel to clean and dry the child's genital area.	To ensure the child's genital area is clean prior to passing urine. Soap is not needed and may irritate the urethral meatus in a child with a urine infection.
Wear gloves (non-sterile) when collecting specimens of urine.	To prevent cross infection and contamination.
Once specimen is obtained, transfer the specimen from the 'J' tray into the appropriate specimen container and label accurately.	Using the appropriate container and correct request form will ensure integrity of the sample and facilitate valid results.
Use a white top universal container if sample will be sent to lab within 4 hours or if there is insufficient quantity for red top boric acid bottle. If sample will not be seen within 4 hours, use a red top boric acid container.	Prompt delivery to the laboratory and use of correct sampling equipment will minimize the growth of additional organisms and ensures testing can commence as soon as possible.
Ensure the correct form accompanies the specimen.	

Record when the specimen is obtained, accurately noting the appearance and amount obtained.	To prevent unnecessary repetition of sampling and delay in treatment.
Wash hands on completion of task	To prevent cross infection and contamination.
Reassure child and parent when the procedure is completed.	To maximize comfort and future concordance and ensure child is comfortable.

2.2 Alternative to clean catch (child not toilet trained)

Where possible a clean catch specimen is the recommended method. However if this is impractical due to existing health needs or delaying a potential diagnosis, a urine collection pad should be used.

If the sample is not for MCS (e.g. protein or metabolic test) a clean catch sample is not necessary and a pad will be sufficient.

Action	**Rationale**
Explain procedure to child and parent and offer to assist.	To ensure consent and concordance with procedure and integrity of sample.
Ensure child has privacy and parental assistance as required.	To maintain privacy and dignity.
Wearing gloves clean the child's genital area with warm tap water.	To prevent cross infection and contamination To ensure the child's genital area is clean prior to passing urine. Soap is not needed and may irritate the urethral meatus in a child with a urine infection.
Place the pad from the urine collection pack into the nappy, positioned in the area where the child passes urine	To ensure the urine is collected in the pad
Review every 10 mins to see if the child has passed urine. If the pad is not wet within 30 minutes apply a new pad If child has not passed urine after 2 hours, inform medical staff.	To minimize the time the pad is in contact with the skin and reduce the risk of contamination. To enable reassessment of hydration status and need for other interventions.
Remove pad when the child has passed	To prevent soreness and maximise comfort.

urine. Wash and dry child's genital area. Apply barrier cream as required and replace nappy.	
If child has had their bowels opened, then remove the pad and repeat procedure.	Faecal contamination may give a false positive result.
Lay the pad, wet side up, on a flat surface on paper towel or the paper field that the pads are wrapped in.	To minimize the risk of contamination
Wearing gloves take the supplied syringe, place the tip on the pad at a 45" angle and pull up to obtain the urine. Empty this into the appropriate container and repeat if it is an insufficient amount of urine	To withdraw the urine and obtain a sufficient sample amount
Deal with urine specimen promptly and place in appropriate specimen container and label correctly.	Using the appropriate container and correct request form will ensure integrity of the sample and facilitate valid results.
Use a white top universal container if sample will be sent to lab within 4 hours or if there is insufficient quantity for red top boric acid bottle. If sample will not be seen within 4 hours, use a red top boric acid container.	Prompt delivery to laboratory prevents growth of organisms and ensures testing can commence as soon as possible.
Ensure the correct form accompanies the specimen.	
Record when the specimen has been obtained, accurately noting appearance and amount obtained.	To prevent unnecessary repetition of sampling and delay in treatment.
Wash hands on completion of task.	To prevent cross infection and contamination.
Reassure the child and parent when the procedure is completed	To maximize comfort and future compliance.

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2.3 Outcome

Urine specimens will be obtained, correctly labelled, and sent to the laboratory without delay to facilitate diagnosis and treatment.

3. Education and Training

No additional training is required to implement this guideline.

4. Supporting Documents and Key References

Farrell, M et al. (2002) 'A method comparison study to assess the reliability of urine collection pads as a means of obtaining urine specimens from non-toilet trained children for microbiological examination', Journal of Advanced Nursing 37(4) 387-393.

Pritchard, A.P. & Mallett, J. (1993) Manual of Clinical Nursing Procedures 3rd Edition, Royal Marsden Hospital, Blackwell Scientific

Skale, N. (1992) Manual of Paediatric Nursing Procedures, Lippincott.

https://www.nice.org.uk/guidance/cg54 2018 (accessed24/05/2021)

5. Key Words

Urine, Specimen, Urethral, Sample, Child

The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.
As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

DEVELOPMENT AND APPROVAL RECORD FOR THIS DOCUMENT		
Author / Lead Officer:	Rachel Sheard Specialist Nurse Jeni Senior Specialist Nurse	**Executive Lead** Chief Nurse
REVIEW RECORD		
Description Of Changes (If Any)		
May 2021 • Updated NICE guidance/pathway hyperlink • Added to sample collection rationale for use of correct sampling equipment to minimize the growth of additional organisms		