

## HALF A DOZEN THINGS TO KNOW ABOUT URINARY TRACT INFECTION IN CHILDREN

### NICE CLINICAL GUIDELINE 54

<http://guidance.nice.org.uk/CG54>

1. The most common presentation of UTI in infants is an undiagnosed fever. Infants and children presenting with unexplained fever of 38°C or higher should have a urine sample tested after 24 hours at the latest.
2. **Collecting the urine sample [1.1.3.1]**
  - A clean catch urine sample is the recommended method for urine collection.
  - If a clean catch urine sample is not possible, use other non-invasive methods such as urine collection pads
  - Do not use cotton wool balls, gauze or sanitary towels.
  - If other non-invasive methods are not possible, use a catheter sample or suprapubic aspiration (SPA)
  - Before SPA is attempted, ultrasound guidance should be used to demonstrate the presence of urine in the bladder.
3. **Diagnosis/Acute Management [1.2]**
  - Urine Microscopy result
    - ❖ If Bacteriuria negative and Pyuria positive, antibiotic treatment should be started if clinically UTI.
  - Using dipstick test to diagnose UTI [1.1.5.1]
    - ❖ If leukocyte esterase is negative and nitrite is positive, start antibiotic treatment if fresh sample was tested
    - ❖ If leukocyte esterase is positive and nitrite is negative, only start antibiotic treatment if there is good clinical evidence of UTI
  - Treat with a different antibiotic, not a higher dose of the same antibiotic, if an infant or child is receiving prophylactic medication and develops an infection **[1.2.1.7]**.
4. **Imaging Tests [1.3]**
  - Infants younger than 6 months should have ultrasound during the acute infection if they:
    - ❖ Do not respond well to treatment within 48 hours.
    - ❖ Have atypical UTI
    - ❖ Have recurrent UTI
  - In infants and children 6 months or older but younger than 3 years, MCUG should not be performed routinely. It should be considered if the following features are present:
    - ❖ dilatation on ultrasound
    - ❖ poor urine flow
    - ❖ non-*E. coli*-infection
    - ❖ family history of VUR.
  - When a micturating cystourethrogram (MCUG) is performed, give oral prophylactic antibiotics for 3 days with MCUG taking place on the second day **[1.3.1.8]**.
5. **Prophylaxis**
  - Antibiotic prophylaxis should not be routinely recommended in infants and children following first-time UTI (consider after recurrent UTI) **[1.2.3.2]**.
6. **Follow-up {1,5}**
  - Arrange follow up for infants and children with recurrent UTI, risk factors, atypical illness and abnormal imaging.
  - Assessment of infants and children with renal parenchymal defects should include height, weight, blood pressure and routine testing for proteinuria **[1.5.1.5]**.
  - Infants and children with a minor, unilateral renal parenchymal defect do not need long-term follow-up unless they have recurrent UTI or family history or lifestyle risk factors for hypertension **[1.5.1.6]**.