**Urinary Tract Infection (UTI) in Children**

Suspect UTI clinically from signs/symptoms

Consider UTI in an infant of child with the following signs or symptoms

< 3 months old

> 3 months old



Assess the risk of serious illness in line with “Feverish Illness in Children (NICE clinical guideline 47) If high refer to on-call Paeds team

Refer immediately to on-call paediatric team

> 3 years old

3 months to 3 years old

Dipstick fresh urine sample

Specific urinary symptoms present

No specific urinary symptoms

Leuc –ve Nitrite –ve

Leuc +ve Nitrite +ve

Leuc +ve Nitrite –ve

Not a UTI

Consider other diagnoses eg. vulvovaginitis

Leuc –ve Nitrite +ve

Clinically Unwell

Clinically Well

Send sample to lab (ideally 2)

Send sample to lab (ideally 2)

Send sample to lab (ideally 2)

Do not give ABx unless MC&S +ve positive

Do not give ABx unless MC&S +ve positive

Signs of upper UTI present? - Bacteruria and Temp >38°C - Loin pain/tenderness present

Treat with PO ABx, with a low resistance profile for 7-10 days Consider acute referral to paediatrics

YES

NO

Treat with PO ABx for 3 days

Is imaging or follow up required?

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Typical UTI**   * No features of an atypical or recurrent UTI present | **Atypical UTI – 1 or more of below**   * Seriously ill/sepsis * Poor urinary flow * Abdominal mass * Raised creatinine * Non E.coli organism * Failure to respond within 48 hrs | **Recurrent UTI**   * ≥ 3 lower tract UTIs * ≥ 2 upper tract UTI’s * 1 upper tract and ≥ 2 lower tract UTI’s |
| **Under 6 months old** | - Arrange a routine USS within 6 weeks.  - If USS abnormal refer to Paeds | - Arrange an acute USS within 1 week  - Refer to outpatients for further investigation | - Arrange an acute USS within 1 week  - Refer to outpatients for further investigation |
| **6 months to 3 years old** | - No imaging or follow up required | - Arrange an acute USS within 1 week UNLESS the only atypical feature is that it is an E.coli organism, where the USS can be within 6 weeks.  - Refer to outpatients for further investigation | - Arrange a routine USS within 6 weeks.  - Refer to outpatients for further investigation |
| **More than 3 years old** | - No imaging or follow up required | - Arrange acute USS within 1 week UNLESS the only atypical feature is that it is an E.coli organism, where the USS can be within 6 weeks.  - If USS abnormal refer to Paeds | - Arrange a routine USS within 6 weeks.  - Refer to outpatients for further investigation |

**TOP TIPS**

* Interpreting urine culture can be difficult as contamination is common.
* Try to send 2 clean catch samples before starting antibiotics.
* NEVER use bags to collect urines for MC&S as this increases the risk of contamination significantly
* A urine with a bacterial growth <10^5 cfu/ml and no WCC is unlikely to be a true UTI
* A urine that has a mixed growth with a bacterial count >10^5 cfu/ml may be a true UTI, especially if WCC are present
* If you are unsure if the result is a true UTI, discuss with your local Paed or Micro team before requesting further investigations

For further information please refer to the full NICE guidance (CG54) <http://guidance.nice.org.uk/CG54>

