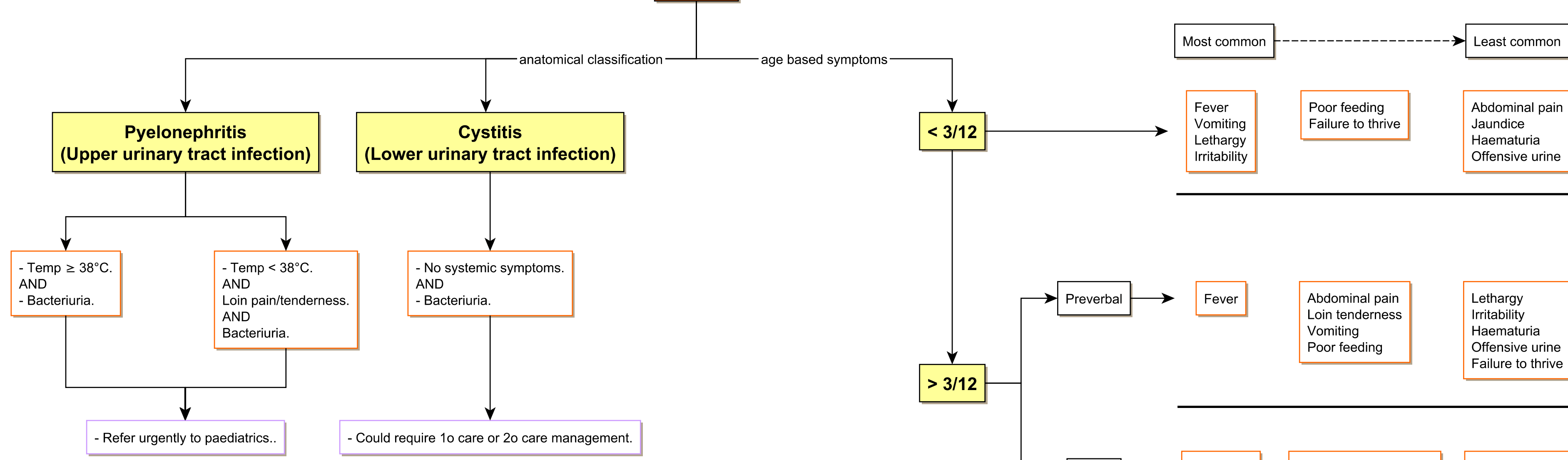


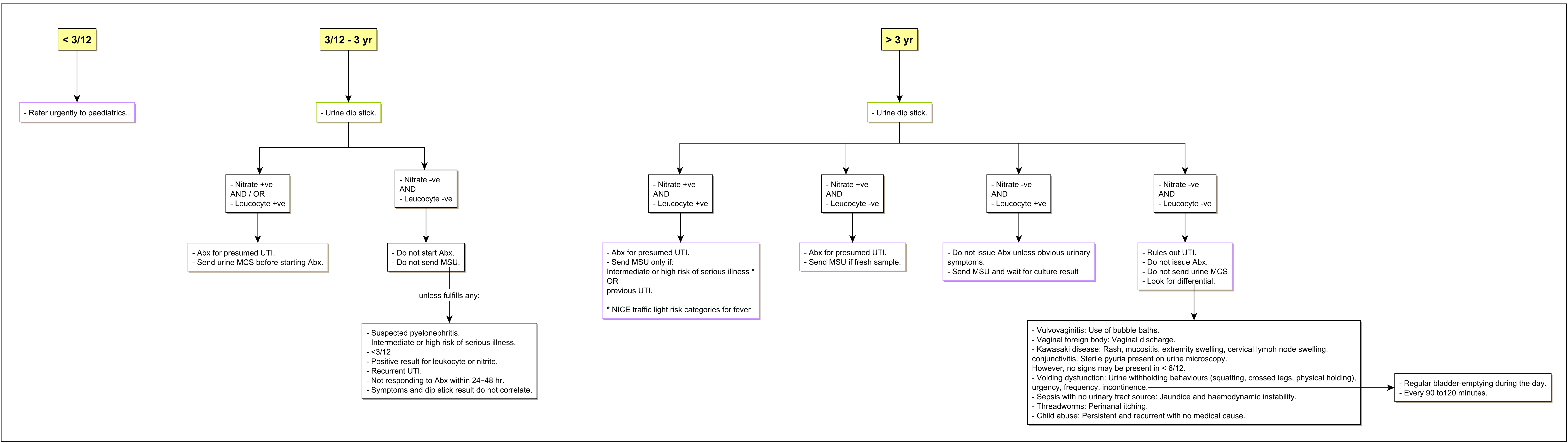
**Urinary tract infection**

Disclaimer:  
Read the disclaimer at medimaps.co.uk/disclaimer  
References:  
1. cks.nice.org.uk, Sept 2017  
2. NICE guidance CG54, Sept 2017.

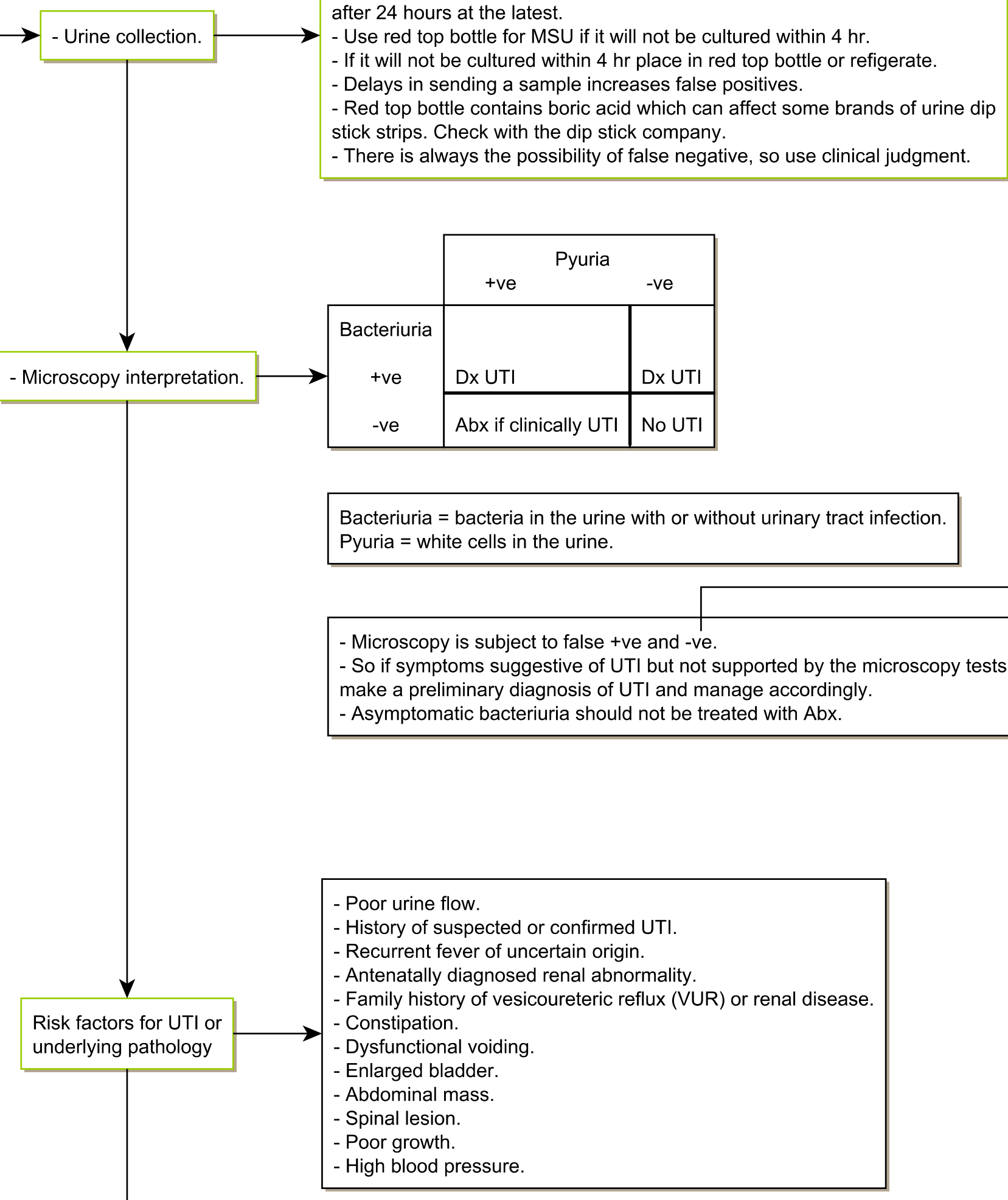
**Symptoms**



- Refer urgently to paediatrics...  
- Could require 1o care or 2o care management.



**Investigations**



**Imaging**

**Recommended imaging schedule for infants younger than 6 months**

Test	Responds well to treatment within 48 hours	Atypical UTI*	Recurrent UTI*
Ultrasound during the acute infection	No	Yes <sup>1</sup>	Yes <sup>1</sup>
Ultrasound within 6 weeks	Yes <sup>2</sup>	No	No
DMSA 4-6 months following the acute infection	No	Yes	Yes
MCUG	No	Yes	Yes

\* See box 1 for definition.  
\* If abnormal consider MCUG.  
\* In an infant or child with a non-E. coli-UTI, responding well to antibiotics and with no other features of atypical infection, the ultrasound can be requested on a non-urgent basis to take place within 6 weeks.

**Recommended imaging schedule for infants and children 6 months or older but younger than 3 years**

Test	Responds well to treatment within 48 hours	Atypical UTI*	Recurrent UTI*
Ultrasound during the acute infection	No	Yes <sup>1</sup>	No
Ultrasound within 6 weeks	No	No	Yes
DMSA 4-6 months following the acute infection	No	Yes	Yes
MCUG	No	No <sup>2</sup>	No <sup>2</sup>

\* See box 1 for definition.  
\* While 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.

 In an infant or child with a non-E. coli-UTI, responding well to antibiotics and with no other features of atypical infection, the ultrasound can be requested on a non-urgent basis to take place within 6 weeks.

**Table 6 Recommended imaging schedule for children 3 years or older**

Test	Responds well to treatment within 48 hours	Atypical UTI*	Recurrent UTI*
Ultrasound during the acute infection	No	Yes <sup>1</sup>	No
Ultrasound within 6 weeks	No	No	Yes <sup>2</sup>
DMSA 4-6 months following the acute infection	No	No	Yes
MCUG	No	No	No

\* See box 1 for definition.  
\* Ultrasound in toilet-trained children should be performed with a full bladder with an estimate of bladder volume before and after micturition.  
\* In a child with a non-E. coli-UTI, responding well to antibiotics and with no other features of atypical infection, the ultrasound can be requested on a non-urgent basis to take place within 6 weeks.

**Box 1 Definitions of atypical and recurrent UTI**

**Atypical UTI includes:**

- seriously ill (for more information refer to the NICE guideline on fever in under-5s)
- poor urine flow
- abdominal or bladder mass
- raised creatinine
- septicaemia
- failure to respond to treatment with suitable antibiotics within 48 hours
- infection with non-E. coli organisms

**Recurrent UTI:**

- 2 or more episodes of UTI with acute pyelonephritis/upper urinary tract infection, or
- 1 episode of UTI with acute pyelonephritis/upper urinary tract infection plus one or more episode of UTI with cystitis/lower urinary tract infection, or
- 3 or more episodes of UTI with cystitis/lower urinary tract infection

**Management**

