

# evidence based guidelines

## OUTPATIENT URINARY TRACT INFECTION

### Definition

#### Presence of symptoms\*

Lower tract (hematuria, suprapubic pain, dysuria, frequency, incontinence, temp <38 C)

Upper tract (flank pain, fever ≥ 38 C, nausea/vomiting, lethargy)

\*Do not order a urinalysis or culture if there are no symptoms consistent with a urinary tract infection

### Abnormal Urinalysis

Urine dipstick - Presence of leukocyte esterase and/or nitrates

Centrifuged Manual Microscopic Urinalysis: >5 WBCs/hpf or bacteriuria in male or pre-pubescent female

Laboratory Reported Microscopic Urinalysis: > 10 WBCs/hpf or bacteriuria in male or pre-pubescent female

### Urine Culture

Do not treat asymptomatic bacteriuria (exception: during pregnancy)

Urine cultures are not necessary for low-risk women ages 16 yo or older

Send a catheterized or supra-pubic aspiration (SPA) sample for infants ≤ 24 **months** old being treated for UTI

- A clean-catch sample is a permissible alternative
- Perineal bag collection can be used for dipstick or microscopic testing but due to high false-positive rate cannot be used to obtain a urine culture.

Send clean-catch or catheterized urine culture for any patient with a UTI and a high risk of a complication:

- Upper tract symptoms at any age
- All males and pre-pubescent females
- Presence of abnormal urogenital anatomy or an indwelling urinary catheter
- History of recently treated UTI or a patient with a history of frequent UTIs (2 or more in 6 months)

### Treatment (adjust doses for decreased renal function)

**Significantly ill patients and all infants < 2 months old:** Admit for inpatient therapy

**Children ≥ 2 months:** amoxicillin/clavulanate 10-15 mg/kg divided every 8 hrs x 7-14 days  
cephalexin 50-100 mg/kg divided every 8 hrs x 7-14 days  
cefdinir 14 mg/kg once daily x 7-14 days  
cefepodoxime 10mg/kg divided every 12 hrs x 7-14 days  
trimethoprim/sulfamethoxazole 6-12 mg/kg divided every 12 hrs x 7-14 days

**Adult female:** nitrofurantoin 100mg BID x 5 days (avoid if pregnant or upper tract symptoms)  
amoxicillin/clavulanate 875mg/125mg BID x 5-7 days  
cephalexin 500mg 2-4x/day x 5-7 days  
cefdinir 300mg BID x 3-7 days  
ciprofloxacin 250mg BID (or 500mg ext. release daily) x 3 days  
trimethoprim/sulfamethoxazole DS (160mg/800mg) BID x 3-5 days

**Adult male:** cephalexin 500mg 4x/day x 7-14 days  
ciprofloxacin 500mg BID (or 1000mg ext. release daily) x 7-14 days  
levofloxacin 750mg once daily x 7-14 days  
trimethoprim/sulfamethoxazole DS (160mg/800mg) BID x 7-14 days

### Imaging

Obtain a renal ultrasound within 6 weeks of a UTI in the following cases:

- In children ≤ 24 **months** old after first febrile UTI
- In all children 16 years old or under with any of the following: upper tract symptoms, 3 or more lifetime UTIs, FH of renal/urologic disease, poor growth, hypertension, non-E.Coli bacteria
- In any patient with: low urine flow, frequent infections, failure to respond to tx, septicemia