

Urinary Tract Infection

Do not send urine for UTI workup in asymptomatic patients	
Do not send urine for test of cure	
Changes in urine color, smell or turbidity do not qualify as symptoms of UTI	
Syndrome	Symptoms and signs
Asymptomatic bacteriuria	Positive UA or urine culture with no acute localizing signs/symptoms of UTI
Cystitis or UTI	New or worsening dysuria, urgency, hesitancy, frequency, suprapubic pain and/or gross hematuria
Pyelonephritis	See Cystitis/UTI as above, plus fevers, chills, flank pain, CVA tenderness, nausea, vomiting

Diagnosis	<ul style="list-style-type: none"> - If dysuria is present, inspect genitalia for discharge, vesicles or ulcerations AND consider STI testing - For acutely symptomatic patients, obtain urine dipstick OR laboratory urinalysis • for dipstick specimens, send urine culture if leukocyte esterase (LE) positive • for laboratory UA, WBC count $\leq 10/hpf$ indicates low likelihood of true infection even if bacteria present - In patients with longstanding irritative symptoms (often postmenopausal women with ongoing dysuria, urinary frequency/hesitancy/urgency), test only if acute and/or worsening change in symptoms
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Treatment Recommendations by Type of UTI and by Age

ALWAYS review available urine cultures from prior 6 months to determine appropriateness of empiric choice		
Contact patient to discontinue prescribed antibiotics if culture is negative, has >3 bacterial types or <1,000 CFU/mL		
Type of UTI	Empiric Adult Treatment	Empiric Pediatric Treatment
Cystitis without additional features	<ul style="list-style-type: none"> • Cephalexin* 1000 mg BID for 5 days • Nitrofurantoin** 100 mg BID for 5 days for 5 days (also Beta-lactam allergy history option) • TMP-SMX DS** 160 mg-800 mg BID for 3 days (also Beta-lactam Allergy History option) 	<ul style="list-style-type: none"> • Cephalexin* 25-50 mg/kg/day <u>divided BID to QID</u> for 3 to 5 days (maximum dose: 3000 mg/day) • TMP-SMX** 6-12 mg/kg/day <u>divided BID</u> for 3 days (dose based on TMP component; maximum dose: 320 mg/day)
Cystitis with catheter or known obstruction	<p>Base empiric selection on available data</p> <ul style="list-style-type: none"> • Cephalexin* 1000 mg BID for 5 days • TMP-SMX DS** 160 mg-800 mg BID for 5 days • Ciprofloxacin** 250 mg to 500 mg BID for 3 days (also a Beta-lactam allergy history option) 	<ul style="list-style-type: none"> • Cephalexin* 50-100 mg/kg/day <u>divided BID to QID</u> for 5 days (maximum dose: 3000 mg/day) • TMP-SMX** 6-12 mg/kg/day <u>divided BID</u> for 5 days (dose based on TMP component; maximum dose: 320 mg/day)
Men with fever and UTI symptoms (prostatitis or pyelonephritis)	<ul style="list-style-type: none"> • TMP-SMX DS** 160 mg-800 mg BID for 14 days • Ciprofloxacin** 500 mg BID for 14 days <p>Do not use nitrofurantoin</p> <p>For males with pyelonephritis and no suspicion of prostatitis, cephalexin is an additional option:</p> <ul style="list-style-type: none"> • Cephalexin* 1000 mg TID for 14 days 	
Women and children with pyelonephritis	<ul style="list-style-type: none"> • Cephalexin* 1000 mg TID for 14 days • TMP-SMX DS** 160 mg-800 mg BID for 10 to 14 days • Ciprofloxacin** 500 mg BID for 7 days <p>Do not use nitrofurantoin</p>	<ul style="list-style-type: none"> • Cephalexin* 50-100 mg/kg/day <u>divided TID to QID</u> for 14 days (maximum dose: 3000 mg/day) • TMP-SMX** 8-12 mg/kg/day <u>divided BID</u> for 7 to 10 days (dose based on TMP component; maximum dose: 320 mg/day) <p>Do not use nitrofurantoin</p>
* For Moderate or High Beta-lactam Allergy History , avoid Cephalexin (See NM O/P Allergy Risk Assessment first)		
**For pregnant patients, review ciprofloxacin, nitrofurantoin, and TMP-SMX appropriateness before prescribing		
Adjunctive Measures	Increased oral hydration Heat packs, acetaminophen or NSAIDs for pain relief Pyridium for pain relief if age >6 years AND CrCl >50 ml/min (decrease for mild renal impairment)	

<p>Key Points for Counseling Patients</p> <ol style="list-style-type: none"> 1. Just cloudy and/or smelly urine is not a symptom of UTI and does not require antibiotic therapy 2. You will be contacted in 1 to 3 days if antibiotics aren't necessary or if a different antibiotic is required 3. Repeating the urine culture is not indicated if symptoms resolve after antibiotic treatment. 4. Contact your provider if symptoms worsen or do not resolve after treatment
