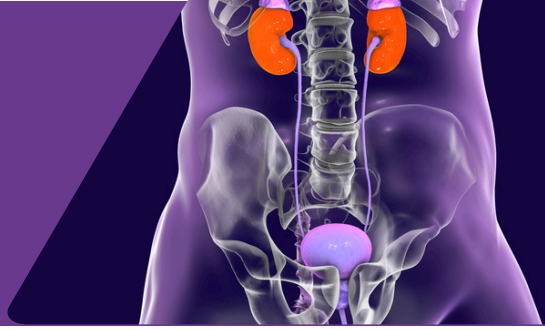
Rethinking Uncomplicated UTIs

Clinical Resource Tool for Healthcare Providers



Uncomplicated urinary tract infections (uUTIs) are prevalent in outpatient settings, affecting 50% to 60% of women at least once in their lives, with a recurrence rate of 30% to 50%. Proper diagnosis and effective management are crucial for enhancing patient well-being and advancing antibiotic stewardship efforts. This resource offers detailed guidance on patient evaluation, choosing the right treatment, and handling persistent or recurrent infections, empowering you and your team to deliver optimal care for uUTIs.

uUTI Diagnosis

To diagnose an uncomplicated urinary tract infection (uUTI), symptoms of cystitis must be present, such as:

- Dysuria or painful urination
- New onset of urinary urgency
- Increased frequency of urination
- New leakage or incontinence
- Suprapubic discomfort
- Presence of blood in urine (hematuria)

If the patient also experiences fever, chills, flank or back pain, or other systemic symptoms, consider management as a complicated UTI.

Laboratory testing alone is insufficient for diagnosing UTIs but can be useful when evaluating alternative diagnoses.

Urinalysis indicators of UTIs:

- **Leukocyte esterase**: Indicates inflammation
- **Nitrites**: Suggests the presence of nitrate-reducing bacteria
- **Hematuria**: May be present but is not always indicative of a UTI

Urine cultures are not typically required to diagnose a UTI, but are recommended for patients with:

- **Recurrent UTIs**
- **Risk factors for resistant infections, such as:**
  - Recent exposure to multidrug-resistant gram-negative bacteria or quinolone-resistant *Pseudomonas aeruginosa*
  - Recent use of quinolones, TMP-SMX, or broad-spectrum ß-lactams
  - Recent hospitalization
  - Travel to regions with high rates of multidrug resistance
- **Cases with diagnostic uncertainty, for instance:**
  - Possible sexually transmitted infection (STI)
  - Atypical UTI symptoms like new onset confusion or delirium in elderly patients
- **High risk of developing a complicated UTI, applicable if the patient also presents with fever, chills, flank/back pain, or other systemic symptoms, or falls into one of the following categories:**
  - Men and individuals assigned male at birth
  - Uncontrolled diabetes
  - Urologic abnormalities such as retention or obstruction
  - Immunocompromised status
  - Recent surgical procedures
  - Pregnancy
- **Inpatient cases of UTI**

Urine cultures should not be routinely ordered for patients who do not exhibit symptoms of cystitis. Treatment of asymptomatic bacteriuria is unnecessary unless the patient is pregnant or preparing for endoscopic urologic procedures.

For patients with a **first-time uUTI, initiate antibiotic treatment and reassess based on culture results,** if available.
Symptom relief options, such as phenazopyridine, ibuprofen, or naproxen, may also be recommended.

uUTI Treatment

First-Line Treatment Options

Antibiotic	Dosing	Prescribing Considerations
Nitrofurantoin monohydrate/macrocrystals	100 mg **PO BID x5 days**	**When to avoid:** • Early pyelonephritis suspected • UTI in men/people assigned male at birth • CrCl < 30 mL/min
Trimethoprim-sulfamethoxazole (TMP-SMX)	1 double-strength tablet (160/800 mg) **PO BID x3 days**	**When to avoid:** • Community resistance prevalence ≥20% • Patient at risk for resistant infection
Fosfomycin	3 g (mixed in water) **PO Single dose**	• Avoid if early pyelonephritis suspected • Lower microbiological efficacy than other recommended agents
Pivmecillinam FDA approved April 2024	185 mg tablet **PO TID x3-7 days**	• Avoid if early pyelonephritis suspected • Lower clinical and microbiological efficacy than other recommended agents

PO = by mouth; BID = twice daily; CrCl = Creatinine Clearance; TID = three times daily

Second-Line Treatment Options

If first-line options are not suitable	If both first-line options and β-lactams are unsuitable
Select a ß-lactam (x3 days) (amoxicillin clavulanate, cefaclor, cefdinir, cefpodoxime proxetil, or cephalexin)	**Select a fluoroquinolone (x3 days)** (ciprofloxacin, levofloxacin, ofloxacin)

Recent FDA Approvals for uUTI Treatments:

- **Sulopenem Etzadroxil & Probenecid:** Approved in October 2024, this treatment targets uUTIs in adult women caused by *E. coli*, *K. pneumoniae*, or *P. mirabilis*, specifically when few oral treatment options are available.
- **Gepotidacin:** Approved in March 2025, this medication treats uUTIs in both adult and pediatric females, effective against *E. coli*, *K. pneumoniae*, *C. freundii complex*, *S. saprophyticus*, and *E. faecalis*. Particularly in cases with resistance concerns.

Persistence and Recurrence

Condition	Definition	Recommended Actions
Persistence or Treatment Failure	• Symptoms persist beyond 7 days or recur within 1–2 weeks after treatment.	• Obtain a urine culture. • Initiate treatment with a broad-spectrum antibiotic.
Recurrence or Reinfection (rUTI)	• Symptoms return more than 2 weeks post-treatment or after a sterile intervening culture. **rUTI is defined as:** • ≥2 UTIs within 6 months, or • ≥3 UTIs within 12 months. • Any second UTI episode warrants consideration of rUTI.	• Evaluate for potential underlying causes. • Consider prophylactic measures. • Discuss lifestyle modifications to reduce recurrence risk.

uUTI Treatment