



Urinary Tract Infection

SUSPECTED URINARY TRACT INFECTION

NO indwelling catheter:

- » Acute dysuria

OR

- » Fever (oral $>37.9^{\circ}\text{C}$ [100°F] or 1.5°C [2.4°F] increase above baseline temperature) and at least one of the following:

New or worsening:

- Urgency
- Frequency
- Suprapubic pain
- Gross hematuria
- Costovertebral angle tenderness
- Urinary incontinence

WITH indwelling catheter (Foley or suprapubic):

- » At least one of the following:
 - Fever (oral $>37.9^{\circ}\text{C}$ [100°F] or 1.5°C [2.4°F] increase above baseline temperature)
 - New costovertebral tenderness
 - Rigors
 - New onset of delirium
 - Acute hematuria
 - Malaise or lethargy with no other cause

- Foul smelling or cloudy urine is not a valid indication for initiating antibiotics.
- Asymptomatic bacteriuria should not be treated with antibiotics.

Reference

Loeb M, Bentley DW, Bradley S, Crossley K, Garibaldi R, Gantz N, McGeer A, Muder RR, Mylotte J, Nicolle LE, Nurse B, Paton S, Simor AE, Smith P, Strausbaugh L. Development of minimum criteria for the initiation of antibiotics in residents of long-term-care facilities: results of a consensus conference. *Infect Control Hosp Epidemiol.* 2001 Feb;22(2):120-4. doi: 10.1086/501875. PMID: 11232875. January 2023

TREATMENT

Clinical Presentation	Risk factors	Preferred therapy	Alternative
Acute simple cystitis	No history of urinary multi-drug resistant organism isolated within last 6 months	Nitrofurantoin PO 100mg BID X 5 days (CrCl > 30 ml/min only) OR TMP-SMX* PO DS 1 tab BID X 3 days OR Fosfomycin PO 3g X 1 dose	Cefpodoxime* PO 100mg BID X 5 to 7 days
	History of urinary multi-drug resistant organism isolated within last 6 months	Obtain urinalysis with urine culture Use previous cultures within last 6 months to guide empiric therapy	
Uncomplicated acute pyelonephritis • Fever, chills or other systemic illness • Flank pain • CVA tenderness	Obtain urinalysis with urine culture to tailor therapy	TMP-SMX* PO DS 1 tab BID Directed therapy duration: • Beta-lactam or TMP-SMX 10-14 days • Fluoroquinolone : 5-7 days	Cefpodoxime* 100mg PO BID
Complicated UTI • CAUTI • Presence of ureteral stent • Neurogenic bladder or functional abnormalities • Structural abnormalities such as obstruction	Obtain urinalysis with urine culture If foley present, change prior to obtaining urine specimen	Ceftriaxone IV 1 g daily OR Cefpodoxime* PO 100 mg BID <u>Recent IV antibiotic use:</u> Cefepime IV 1 g q 12 daily Directed therapy duration: • Lower tract CAUTI in women ≤ 65 years if catheter is removed: 3 days • Prompt resolution of symptoms: 7 days • Delayed response, obstruction or other urologic abnormality: 10-14 days If severe (i.e. hypotension and fever): Transfer to the ED for further evaluation	TMP-SMX* PO DS 1 tab BID

*Renal adjustment required

Reference

Gupta K, Hooton TM, Naber KG, et al. International clinical practice guidelines for the treatment of acute uncomplicated cystitis and pyelonephritis in women: A 2010 update by the Infectious Diseases Society of America and the European Society for Microbiology and Infectious Diseases. *Clin Infect Dis.* 2011 Mar 1;52(5):e103-20.

Hooton TM, Bradley SF, Cardenas DD, et al. Diagnosis, prevention, and treatment of catheter associated urinary tract infection in adults: 2009 international clinical practice guidelines from the Infectious Diseases Society of America. *Clin Infect Dis.* 2010 Mar;50(5):625-63. PMID: 20175247.