

Example 4.15 Colorado Hospital Association Stewardship Collaborative Guidelines for UTI (1 of 2)



Guideline for the Diagnosis and Management of Adults in LTC with UTI (Part 1)

4 Key concepts to optimize diagnosis of UTI in LTC patients:

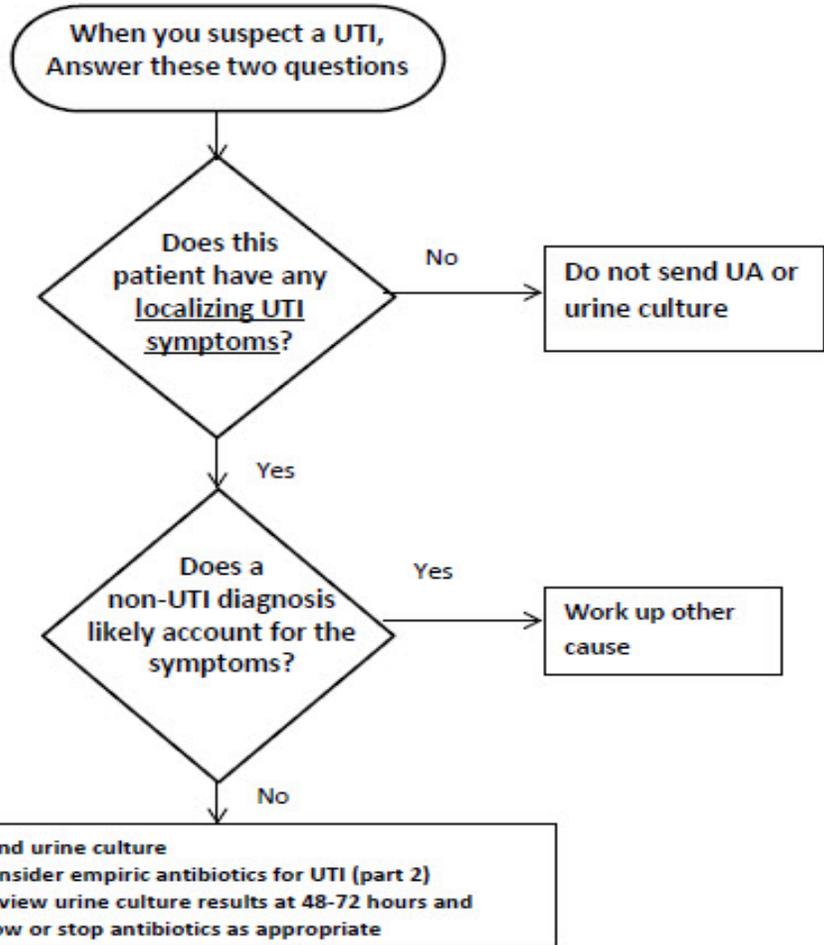
- 1) Most UTIs present with fever and/or symptoms localizing to the urinary tract.
- 2) Antibiotics are not recommended to treat colonization of the urinary tract (asymptomatic bacteriuria), except in pregnancy and invasive genitourinary procedures.
- 3) Urinalysis and urine culture have poor test characteristics in older patients and patients with indwelling urinary catheters—they should not be sent unless symptoms are present.
- 4) Alteration in mental status (delirium) is neither sensitive nor specific for UTI. Thus delirium without other localizing symptoms is unlikely to be a UTI.

Localizing UTI symptoms

- Fever, rigors
- Acute hematuria
- Flank pain
- Suprapubic pain
- Costovertebral angle pain or tenderness
- Pelvic discomfort
- Urgency
- Frequency
- Dysuria

Remember:

Foul smelling or cloudy urine is not a valid indication for initiating antibiotics. Urine specimens for culture should be processed as soon as possible, preferably within 1–2 h. If urine specimens cannot be processed within 30 min of collection, they should be refrigerated. Refrigerated specimens should be cultured within 24 h.



This is intended as a guide for evidence-based decision-making and *should not replace clinical judgment.*
Reference page attached.

For more information about this example contact Marc J. Meyer R.Ph, BPharm, CIC, FAPIC at mmeyer@swhealth.org

Example 4.15 Colorado Hospital Association Stewardship Collaborative Guidelines for UTI (2 of 2)



Colorado Hospital Association Antimicrobial Stewardship Collaborative

Guideline for the Diagnosis and Management of Adults Hospitalized with Urinary Tract Infection (Part 2)

Key concepts to optimize antibiotic use when managing urinary tract infection (UTI) in hospitalized patients:

- 1) Obtain urine culture prior to initiating antimicrobial therapy.
- 2) Fluoroquinolones and trimethoprim-sulfamethoxazole are not routinely recommended as empiric therapy due to increasing bacterial resistance to these agents.
- 3) For patients with an appropriate clinical response, the recommended treatment duration for complicated cystitis, pyelonephritis, or CAUTI is 5 – 7 days.

Guideline applicable to patients with: Uncomplicated cystitis, Complicated cystitis, Pyelonephritis, Catheter-associated UTI (CAUTI)
NOT applicable to: Prostatitis, pregnancy, bacteremia, renal transplant, persistent urinary tract obstruction, renal/perinephric abscess, percutaneous nephrostomy tubes, and other clinical scenarios requiring specialized management

<p>Uncomplicated cystitis, defined as a bladder infection in a <u>healthy, nonpregnant woman <65 years old</u> without evidence of upper urinary tract involvement, obstruction, anatomic abnormalities, or recent instrumentation</p> <p>Common pathogens: <i>E. coli</i>, Klebsiella, Proteus, <i>S. saprophyticus</i></p> <p>Initial antibiotic selection</p> <ul style="list-style-type: none"> • Nitrofurantoin 100mg PO BID x 5 days (contraindicated if creatinine clearance <60mL/min) OR • Fosfomycin 3gm PO x 1 dose OR • Trimethoprim-sulfamethoxazole DS 1 tab PO BID x 3 days (if local resistance in <i>E. coli</i> is <15%) <p>Target antibiotic selection to microbiologic data when available</p> <p>Treatment duration: as noted in initial antibiotic selection box above</p>	<p>Complicated cystitis, defined as any bladder infection not meeting all criteria for uncomplicated cystitis (including any male) OR <u>Pyelonephritis OR Catheter-associated UTI*</u></p> <p>AND</p> <p>Low Risk for Antibiotic-Resistant Organism (absence of risk factors in box to right)</p> <p>Common pathogens: <i>E. coli</i>, Enterococcus, Klebsiella, other gram-negative bacilli</p> <p>Empiric therapy depends on local antimicrobial susceptibilities and formulary. Options may include:</p> <ul style="list-style-type: none"> • Ceftriaxone • If severe PCN allergy: Ciprofloxacin OR Levofloxacin <p>Empiric therapy should be narrowed or stopped at 48 hours depending on culture results</p> <p>Transition to oral therapy: Target antibiotic selection to microbiologic data when available. For empiric therapy, consider:</p> <ul style="list-style-type: none"> • <u>If ceftriaxone used as inpatient:</u> oral 2nd- or 3rd- generation cephalosporin OR • Fosfomycin (only if no pyelonephritis) OR • Ciprofloxacin OR levofloxacin <p>Treatment duration for patients with an appropriate clinical response: <u>5-7 days</u></p>	<p>Complicated cystitis OR Pyelonephritis OR Catheter-associated UTI*</p> <p>AND</p> <p>High Risk for Antibiotic-Resistant Organism, defined as hospitalization for >3 days or prior colonization/infection with an antibiotic-resistant organism OR</p> <p>Severe sepsis, hemodynamic instability, or shock</p> <p>Common pathogens: <i>E. coli</i>, <i>Pseudomonas aeruginosa</i>, Enterobacter, Enterococcus, other gram-negative bacilli</p> <p>Empiric therapy depends on local antimicrobial susceptibilities and formulary. Options may include:</p> <ul style="list-style-type: none"> • Cefepime or Ceftazidime • Piperacillin-Tazobactam • Carbapenem (if suspicion for extended-spectrum beta-lactamase (ESBL)-producing organism) • If severe PCN allergy: Ciprofloxacin OR levofloxacin <p>Empiric therapy should be narrowed or stopped at 48 hours depending on culture results</p> <p>Transition to oral therapy: Target antibiotic selection to microbiologic data when available. For empiric therapy, consider:</p> <p>Ciprofloxacin OR levofloxacin OR Fosfomycin (3 doses) (only if no pyelonephritis)</p> <p>Treatment duration for patients with an appropriate clinical response: <u>5-7 days</u></p>
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* If Foley catheter in place, remove or change catheter.

This is intended as a guide for evidence-based decision-making and should not replace clinical judgment. Patient and clinical characteristics, local antimicrobial susceptibility patterns, allergies, and formulary must be considered in treatment decisions.

References: Trautner BW et al. JAMA Intern Med 2015;175:1120; IDSA Guideline for Acute Uncomplicated Cystitis/Pyelonephritis. CID 2011;52:e103; IDSA Guideline for Catheter-Associated Urinary Tract Infection. CID 2010; 50:625; IDSA Guideline for Asymptomatic Bacteriuria. CID 2005;40:643

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