

# Urinary Tract Infections & Asymptomatic Bacteriuria Guidance

Northwestern Medicine Antimicrobial & Diagnostic Stewardship Program

<p><b>Asymptomatic Bacteriuria</b></p>	<p><b>No antibiotics recommended – observe patient for development of urinary symptoms at this time</b></p> <ul style="list-style-type: none"> <li>Patients who require treatment of asymptomatic bacteriuria include pregnant women, patients undergoing urologic procedure with anticipated mucosal damage, &amp; recent kidney transplant</li> </ul>
<p><b>Cystitis</b> Lower urinary tract symptoms without fever</p> <ul style="list-style-type: none"> <li>Dysuria</li> <li>Urgency</li> <li>Frequency</li> </ul> <p>Note: Foul smelling and/or cloudy urine alone are not signs of cystitis</p>	<p>Note: Select based on prior urine cultures (previous 12 months) if available. Evaluate/Rule out prostatitis in males. Select one of the following:</p> <ul style="list-style-type: none"> <li>Oral <ul style="list-style-type: none"> <li>Nitrofurantoin 100 mg PO BID x 5d *Avoid use if CrCl &lt;30 ml/min</li> <li>Cephalexin 1000 mg PO BID x 5d</li> <li>TMP/SMX 1 DS PO BID x 3d</li> <li>Fosfomycin 3 g PO x 1 **reserve for <i>E. coli</i>, check local site for availability</li> </ul> </li> <li>Severe Beta-lactam <a href="#">allergy</a><sup>^</sup> (e.g., anaphylaxis): <ul style="list-style-type: none"> <li>Nitrofurantoin 100 mg PO BID x 5d</li> <li>TMP/SMX 1 DS PO BID x 3d</li> </ul> </li> <li>IV Therapy – should be reserved for patients unable to take PO meds <ul style="list-style-type: none"> <li>Cefazolin 1000 mg IV q8hr x 3d</li> <li>Aztreonam 1000 mg IV q8hr x 3d if severe Beta-lactam <a href="#">allergy</a><sup>^</sup> (e.g., anaphylaxis)</li> </ul> </li> </ul>
<p><b>Cystitis with catheter</b></p> <p>Note: Catheterized patients <b>without a fever</b> should not be treated without other urinary symptoms</p>	<p><b>Catheterized patients without a fever should not be treated for positive UA/UCx.</b> Select based on prior urine cultures (previous 12 months) if available. Remove and replace catheter if present. Evaluate/Rule out prostatitis in males. Select one of the following:</p> <ul style="list-style-type: none"> <li>Oral <ul style="list-style-type: none"> <li>Cephalexin 1000 mg PO BID x 5d</li> <li>TMP/SMX 1 DS PO BID x 5d</li> </ul> </li> <li>IV Therapy – should be reserved for patients unable to take PO meds <ul style="list-style-type: none"> <li>Cefazolin 1000 mg IV q8hr x 3-5d</li> <li>If Hx of pathogens resistant to cefazolin <ul style="list-style-type: none"> <li>Empiric therapy should be guided by previous urine culture</li> <li>Ceftriaxone 1000 mg IV q24hr x 3-5d if susceptible</li> </ul> </li> </ul> </li> <li>Severe Beta-lactam <a href="#">allergy</a><sup>^</sup> (e.g., anaphylaxis): <ul style="list-style-type: none"> <li>TMP/SMX 1 DS PO BID x 5d</li> <li>Ciprofloxacin 500 mg PO q12hr x 3d</li> <li>Aztreonam 1000 mg IV q8hr x 3d</li> </ul> </li> </ul>
<p><b>Pyelonephritis</b></p>	<p>Note: Select based on prior urine cultures (previous 12 months) if available. If bacteremic, refer to <a href="#">Biofire Blood Culture Guidance</a> for empiric therapy recommendations. Select one of the following:</p> <ul style="list-style-type: none"> <li>Empiric Therapy (IV) <ul style="list-style-type: none"> <li>Cefazolin 2000 mg IV q8hr x 7d</li> <li>If Hx of pathogens resistant to cefazolin <ul style="list-style-type: none"> <li>Empiric therapy should be guided by previous urine culture</li> <li>Ceftriaxone 2000 mg IV q24hr x 7d if susceptible</li> </ul> </li> </ul> </li> <li>Severe Beta-lactam <a href="#">allergy</a><sup>^</sup> (e.g., anaphylaxis): <ul style="list-style-type: none"> <li>Aztreonam 1000 mg IV q8hr x 7d</li> </ul> </li> <li>Culture-directed or Step-down therapy (Oral) <ul style="list-style-type: none"> <li>Cephalexin 1000 mg PO q8hr x 7d</li> <li>TMP/SMX 1 DS PO BID x 7d <ul style="list-style-type: none"> <li>Recommend doses <math>\geq 5\text{mg/kg/day}</math> based on AdjBW w/renal adjustment as needed</li> </ul> </li> <li>Ciprofloxacin 750 mg PO q12hr x 7d</li> </ul> </li> </ul>
<p><b>Acute Bacterial Prostatitis</b></p>	<p>Note: Select based on prior urine cultures (previous 12 months) if available. Select one of the following:</p> <ul style="list-style-type: none"> <li>Empiric Therapy (IV) <ul style="list-style-type: none"> <li>Ceftriaxone 2000 mg IV q24hr</li> </ul> </li> <li>Culture-directed or Step-down therapy (Oral) - Guided by susceptibilities: <ul style="list-style-type: none"> <li>Ciprofloxacin 500 mg PO q12hr</li> <li>TMP/SMX 1 DS PO q12hr <ul style="list-style-type: none"> <li>Recommend doses <math>\geq 5\text{mg/kg/day}</math> based on AdjBW w/renal adjustment as needed</li> </ul> </li> </ul> </li> </ul>

<sup>^</sup> For patients with documented Beta-lactam allergy: see [NM Allergy Considerations](#) before prescribing an alternative agent