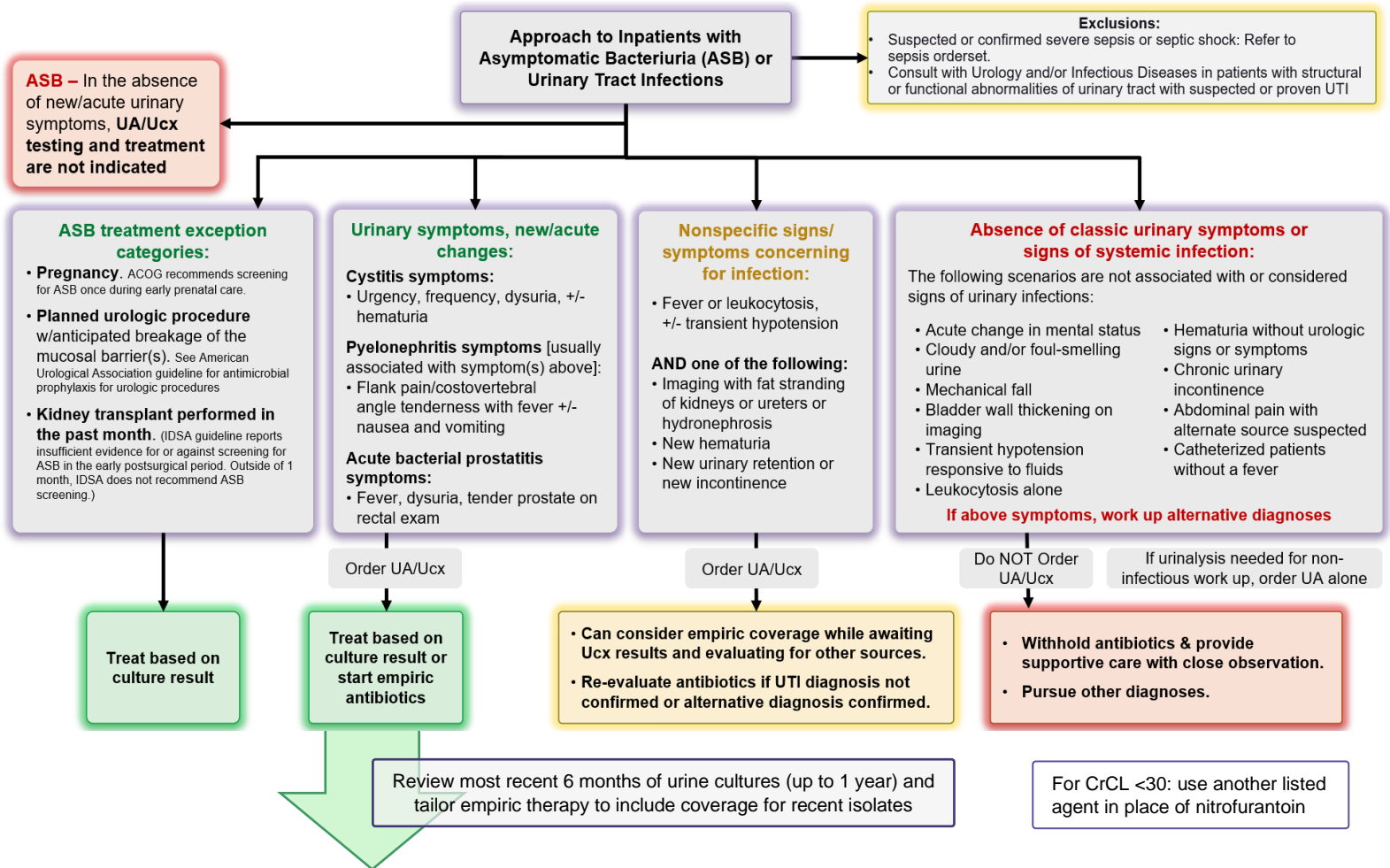




Approach to Urinary Infections & Asymptomatic Bacteriuria

This guidance is intended to help clinicians differentiate between urinary infections and asymptomatic bacteriuria (ASB), which each require different management. Patient-specific clinical context and risk-benefit assessment should be applied. For patients with bacteremia, please refer to the [ADSP Blood Biofire Guideline](#).



Specific Indication	Empiric Therapy (Dosing)	Severe β -lactam allergy	Specific Pathogen	Targeted Treatment if Susceptible Dosing (Duration)	Comments
Asymptomatic Bacteriuria	<p>No antibiotics recommended – may lead to more harm than good, recommend observing patient for development of urinary symptoms & avoid antibiotics in absence of confirmed urinary symptoms or hemodynamic instability</p> <ul style="list-style-type: none"> • Patients who require treatment of ASB: pregnant women, patients undergoing urologic procedure with anticipated mucosal damage, & recent kidney transplant (within previous month) 				
Cystitis	<ul style="list-style-type: none"> • Cephalexin • Nitrofurantoin • TMP/SMX <p>If unable to take PO meds:</p> <ul style="list-style-type: none"> • Cefazolin 	<ul style="list-style-type: none"> • Nitrofurantoin • TMP/SMX • Ciprofloxacin (only if catheter) <p>If unable to take PO meds:</p> <ul style="list-style-type: none"> • Cefazolin • If cefazolin allergy: Aztreonam 	<p><i>E. coli, Klebsiella, Proteus</i> species</p>	<ul style="list-style-type: none"> • Nitrofurantoin (5 days) • Cephalexin (5 days) • TMP/SMX (3 days) • <i>E. coli</i> only: Fosfomycin (once) • Alt if not susceptible to the above: cefpodoxime (5 days) 	Catheterized pts without fever should not be treated without urinary symptoms
Cystitis with Catheter		<p><i>Enterococcus</i> species</p>	<ul style="list-style-type: none"> • Amoxicillin (5 days) • Nitrofurantoin (5 days) 		
		<p><i>Pseudomonas aeruginosa</i></p>	<ul style="list-style-type: none"> • Ciprofloxacin (3 days) • Tobramycin or amikacin (once) 		
Pyelonephritis	<ul style="list-style-type: none"> • Cefazolin 	<ul style="list-style-type: none"> • Cefazolin • If cefazolin allergy: Aztreonam 	Depending on the pathogen and susceptibilities:		
Acute Bacterial Prostatitis	<ul style="list-style-type: none"> • Ceftriaxone 		Depending on the pathogen and susceptibilities: TMP/SMX or ciprofloxacin (4 weeks)		

References: 2019 IDSA [ASB Guideline](#); 2024 J Urol. [Continuum of UTI Study](#); NM System [Antibiograms](#)

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

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