

Management of Uncomplicated Urinary Tract Infections (UTI) and Asymptomatic Bacteriuria (ASB)

Urine is not a sterile body fluid. Many patients may have bacteria in the urine that is not pathogenic. ASB can occur in patients of all ages but prevalence of ASB increases with age:

Population	Prevalence of ASB
Healthy, premenopausal women	1-5%
Post-menopausal women 50-70 y/o	1.9-9.5%
Diabetic women	10.8-16%
Women ≥70 y/o living in the community	10.8-16%
Men ≥70 y/o living in the community	3.6-16%
Women ≥70 y/o living in LTCF	25-50%
Men ≥ 70 y/o living in LTCF	14-40%
Spinal cord injuries	23-69%
Long-term indwelling catheters	100%
Short-term indwelling catheters	3-5% per catheter day
IDSA, Asymptomatic Bacteriuria, Clinical Infectious Diseases, 2019	

According to the IDSA only patients with symptoms require treatment for asymptomatic bacteriuria.

Symptoms include:

- Dysuria
- Frequency
- Urgency
- Suprapubic pain
- Flank pain

Foul smelling or cloudy urine does not indicate the presence of a UTI. Pyuria in the absence of symptoms does not indicate UTI.

Bacteriuria is a common finding in elderly patients. Although antibiotics may eradicate organisms from the bladder, no evidence has shown that treatment of ASB improves outcomes in these patients and bacteriuria often reoccurs. Altered mental status can be a sign of a urinary tract infection but it is important to assess and treat other possible causes.

Elderly patients are more sensitive to the side effects of antibiotics and they should be avoided whenever possible.

Guidelines Do Not recommend screening or treatment for ASB in:

- Premenopausal, non-pregnant women
- Diabetic women
- Elderly persons living in the community or institutionalized
- Spinal cord injury
- Catheterized patients

Patients who may require treatment for ASB:

- Pregnant
- Undergoing a urologic procedure
- Kidney transplant (≤1 month post transplant)
- Immunocompromised

Common Pathogens	NMNWR <i>E. coli</i> Susceptibility	IDSA Treatment Recommendations	NM Northwest Region
Enterobacteriaceae (<i>E. coli</i> 75-95%)	Nitrofurantoin 98%	<i>First Line:</i>	Nitrofurantoin and 1 st and 3 rd generation cephalosporins are more active against <i>E. coli</i> than fluoroquinolones
	Ceftriaxone 92%	Nitrofurantoin	
	Cefazolin 87%	SMX/TMP	
	Ciprofloxacin 79%	Fosfomycin	
	Levofloxacin 79%	<i>Second Line:</i>	
	TMP/SMX 79%	β-lactams	
Ampicillin/Sulbactam 63%	Fluoroquinolones		

Fluoroquinolones:

Not recommended as first line therapy due to serious adverse effects:

- Tendonitis/tendon ruptures
- Aortic aneurysm/dissection
- CNS effects
- *C. difficile* infections
- Antimicrobial resistance

For most infections, the risks associated with fluoroquinolone use outweigh the benefits.

The FDA recommends limiting fluoroquinolone use in uncomplicated UTI's, bacterial sinusitis, and bacterial bronchitis.

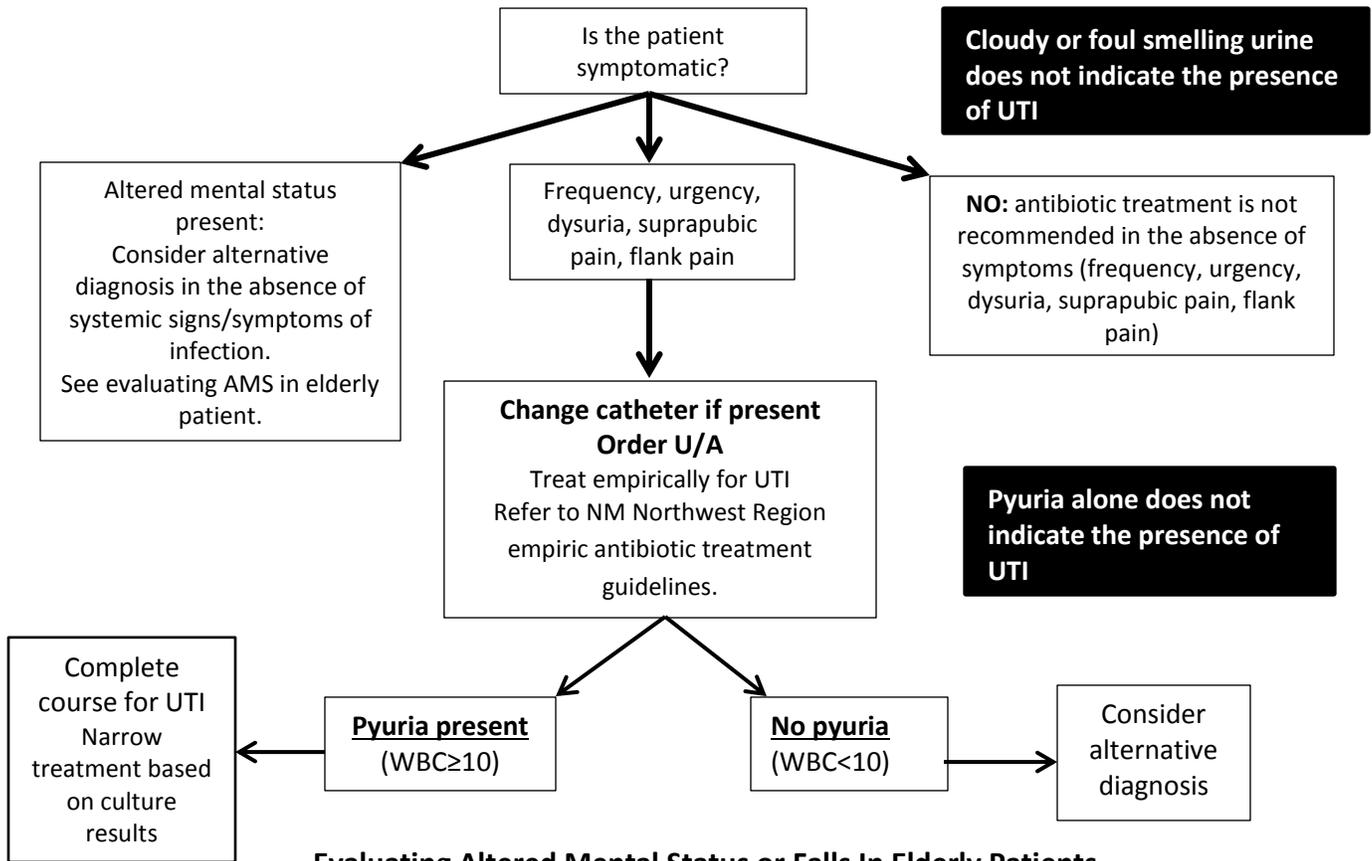
(See <https://asp.nm.org> "Safety Update Fluoroquinolones" for more information.)

Fluoroquinolone use for empiric treatment of UTIs is not recommended. Fluoroquinolones may be used for directed treatment of complicated UTI's and pyelonephritis.

NM Northwest Region Treatment Guidelines for Uncomplicated UTI

First Line	IV	Cefazolin 1 gm IVPB q12H	5 days
	PO	Nitrofurantoin 100 mg PO BID	5 days
		Cefadroxil 1 gm PO Q12H	5 days
Second Line	PO	SMX/TPM 1 DS PO BID	3 days
	IV	Ceftriaxone 1 gm IVPB q24H	5 days
Severe β-lactam allergy	IV	Gentamicin 5 mg/kg IVPB q24H	3 days
		Aztreonam 1 gm IVPB q8H	3 days

Distinguishing Urinary Tract Infections from Asymptomatic Bacteriuria (ASB)



Evaluating Altered Mental Status or Falls In Elderly Patients

