# Diagnosis

Urinary Tract Infections (UTI)

* **First, ask about SYMPTOMS**
	+ Acute cystitis: dysuria, frequency, urgency, suprapubic pain1,2
	+ Pyelonephritis: fever, rigors, flank pain1
	+ Catheter-associated UTI (CAUTI): subrapubic pain and fever; residents with catheters may not report dysuria, frequency, or urgency2,3
* If UTI symptoms present, obtain a urinalysis (UA) and culture
	+ A positive UA shows evidence of inflammation (e.g., elevated white blood cells)
	+ A positive urine culture is defined as ≥100,000 cfu/mL of a urinary pathogen4 (≥1,000 in residents with urinary catheters)1
* If a chronic indwelling catheter is in place, remove and replace it before sending UA and culture4
* Do not start antibiotics in residents with a positive UA and/or culture until confirming that relevant symptoms are present.5-8
* UTI in males in the absence of obstructive pathology (e.g., enlarged prostate, renal stone, stricture) or urinary catheter is uncommon.1,9,10

# Supportive Care

* Encourage oral hydration.1
* Consider phenoazopyridine (pyridium) to relieve urinary pain.11
* For residents with dysuria that does not resolve with antibiotics, assess for other causes such as vaginal atrophy, yeast infection, enlarged prostate, and sexually transmitted infections.12,13
* In men, lower urinary tract symptoms may be caused by overactive bladder or, more commonly, by benign prostatic hyperplasia (BPH) and consequent bladder outlet obstruction.1,9,10

# Treatment

Assess prior urine culture data, as previous antibiotic susceptibility patterns can help guide antibiotic choice.

* **Uncomplicated acute cystitis**13
	+ Oral therapy preferred; avoid fluoroquinolones
	+ [Place local treatment recommendations here]
	+ [Place local treatment recommendations here]
* **Uncomplicated pyelonephritis in women**14
	+ Fluoroquinolones and trimethoprim/sulfamethoxazole are preferred given excellent penetration into the kidney; their use as empiric therapy should be based on local *E. coli* susceptibility data.
	+ [Place local treatment recommendations here]
	+ [Place local treatment recommendations here]
* **Complicated UTI**3,12
	+ Remove and do not replace urinary catheters whenever possible.
	+ If concern for obstructive pathology or urosepsis, determine if resident requires transfer to an acute care facility for evaluation and management.
	+ [Place local treatment recommendations here]
	+ [Place local treatment recommendations here]

# Duration

| Uncomplicated acute cystitis | Nitrofurantoin or cephalosporin: 5 days7Trimethoprim/sulfamethoxazole (TMP/SMX): 3 days14 |
| --- | --- |
| Uncomplicated pyelonephritis | Fluoroquinolone: Levofloxacin: 5 days; Ciprofloxacin 7 days14TMP/SMX or IV/oral cephalosporin: 10–14 days (10 days if early response)15,16 |
| Complicated UTI (including CAUTI) | 3 days if lower tract CAUTI in women ≤65 years if catheter is removed/not replaced Other residents: 7 days if prompt resolution of symptoms or 10–14 days if delayed response, obstruction, or other urologic abnormality3 |

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