Urinary Tract Infections (UTI)

# Diagnosis

* **First, ask about SYMPTOMS**
	+ Acute cystitis: dysuria, frequency, urgency, suprapubic pain
	+ Pyelonephritis: fever, flank pain
	+ Catheter-associated UTI (CAUTI): subrapubic pain and fever; patients with catheters may not report dysuria, frequency, or urgency
* If symptoms are 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 ≥10,000–100,000 cfu/mL of a urinary pathogen
	(≥ 1,000 in patients with urinary catheters)
* If a chronic indwelling catheter is in place, remove and replace it before sending UA and culture
* Do not start antibiotics in patients with a positive UA and/or culture until asking about symptoms

# Treatment

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

* **Uncomplicated acute cystitis** (cystitis in a female without urologic abnormality or catheter):
	+ Oral therapy preferred; avoid fluoroquinolones
	+ [Place local treatment recommendations here]
	+ [Place local treatment recommendations here]
	+ [Place local treatment recommendations here]
* **Uncomplicated pyelonephritis in women**
	+ Fluoroquinolones and trimethoprim/sulfamethoxazole are preferred given excellent penetration into the kidney when the isolate is susceptible; their use as empiric therapy should be based on local *E. coli* resistance data
	+ [Place local treatment recommendations here]
	+ [Place local treatment recommendations here]
	+ [Place local treatment recommendations here]
* **Complicated UTI** (UTI occuring in the presence of urologic abnormality, pregnancy, or urinary catheter or UTI in men)
	+ UTI in men in the absence of obstructive pathology (e.g., renal stone, stricture, enlarged prostate) or urinary catheter is uncommon
	+ Remove and do not replace urinary catheters whenever possible
	+ [Place local treatment recommendations here]
	+ [Place local treatment recommendations here]
	+ [Place local treatment recommendations here]

# Duration

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| Uncomplicated acute cystitis | Nitrofurantoin or cephalosporin: 5 daysTrimethoprim/sulfamethoxazole (TMP/SMX): 3 days |
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| Uncomplicated pyelonephritis | Fluoroquinolone: 5–7 daysTMP/SMX or oral cephalosporin:10–14 days (shorter course if early response) |
| Complicated UTI (including CAUTI) | 3 days if lower tract CAUTI in women ≤ 65 years if catheter is removed/not replaced 7 days if prompt resolution of symptoms10–14 days if delayed response, obstruction, or other urologic abnormality |

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