Empiric UTI Treatment

*Not intended for patients with septic shock*

At least 1 symptom* of UTI must be present
> 12 hours
(Unless signs of sepsis)

Yes

Obtain Urinalysis

> 10 WBC or + Nitrites#

Complicated UTI**

Admitted > 72 hrs or foley placed (male or female)^

Levaquin PO 250mg daily x 5 days OR Cefuroxime PO 250mg BID x 7 days

Bactrim DS PO BID x 3 days or Macrobid PO 100mg BID x 5 days

Obtain urine culture only if no improvement within 48 hours.

No urinalysis or urine culture indicated; pursue other workup

< 10 WBC and -Nitrites

Uncomplicated UTI

Admitted < 72 hrs, no foley, and female

Investigate other source

* See page 2 for a list of symptoms for which to initiate this algorithm

^ Applies to current or previous placement. Remove current Foley catheter, if possible.

** See page 2 for a list of conditions associated with a complicated UTI.

*Urine culture*
Empiric treatment with Rocephin 2gm IV Q24h or Levofoxacin 500mg IV daily
If culture > 100,000 cfu/mL, treat 7-10 days. If culture negative, discontinue abx.

# The absence of pyuria suggests an alternate diagnosis other than UTI. While the diagnostic capability of the urinalysis is limited, literature suggests that nitrites may be useful in screening for a UTI. Urinalysis is invalid if > 5 squamous epithelial cells/HPF and should be repeated.

^ Applies to current or previous placement. Remove current Foley catheter, if possible.
**Signs and Symptoms of UTI**

Fever > 38.5C
Altered mental status or lethargy unexplained by other causes/injury
Rigors
New pelvic pain
Hypotension unrelated to medications
Acute hematuria unrelated to injury

<table>
<thead>
<tr>
<th>If catheter recently removed:</th>
<th>If spinal cord injury:</th>
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<tbody>
<tr>
<td>New urinary frequency</td>
<td>New sense of unease</td>
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<tr>
<td>Suprapubic pain or dysuria</td>
<td>Dysreflexia</td>
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**Characteristics of Complicated UTI**

(long-term or permanent indwelling device)

<table>
<thead>
<tr>
<th>Male gender if BPH or prostatitis</th>
<th>Ureteral obstruction</th>
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<tbody>
<tr>
<td>Neurogenic bladder</td>
<td>Kidney failure</td>
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<tr>
<td>Polycystic kidneys</td>
<td>Immunosuppression</td>
</tr>
<tr>
<td>Immunocompromised state</td>
<td>Suprapubic catheter</td>
</tr>
<tr>
<td>Indwelling urinary catheter</td>
<td>Ureteral stent</td>
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<tr>
<td>Nephrostomy tube</td>
<td>Pregnancy</td>
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**Antibiotic notes:**
- Macrolid should not be used if CrCl < 60 mL/min.
- Adjust Bactrim to SS tablet if CrCl < 30 mL/min. Not for dialysis patients.
- Reduce Levaquin dose to 250mg daily if CrCl < 50 mL/min.
- Consider the antibiotic rotation eliminated class when choosing antibiotics on 10N.

**References:**