Updated July 24, 2025

Guideline for Antimicrobial Use in

URINARY TRACT INFECTIONS at West Park Healthcare Centre

1. Empiric Antimicrobial Regimens

a. The empiric regimens below are based on the 2024 WPHC antibiograms.
b. Consider the patient's historical urine C&S results and recent antimicrobial regimens prior to selecting empiric treatment.
c. Usual dosages are provided below; adjust in renal impairment.

<table>
<tr><th>Type of UTI</th><th>1st Line Empiric Therapy</th><th>2nd Line Empiric Therapy</th></tr>
<tr><td>UNCOMPLICATED CYSTITIS

(NO systemic involvement)</td><td>Nitrofurantoin[a,b] monohydrate/macrocrystals capsule (MacroBID®) 100 mg PO q12h for 5 days

If enteral tube:
Nitrofurantoin tablet 50 mg ENT q6h for 5 days</td><td>Fosfomycin 3 g PO once</td></tr>
<tr><td rowspan="2"><u>MILD TO MODERATE</u>

PYELONEPHRITIS or COMPLICATED UTI

(clinically stable, systemic involvement)</td><td>Amoxicillin-clavulanic acid 875/125 mg PO q12h for 7 days</td><td>Sulfamethoxazole 800 mg/trimethoprim 160 mg (=1 DS tab or 2SS tabs) PO q12h for 7 days

If sulfamethoxazole/trimethoprim cannot be used:
- Ciprofloxacin 500 mg PO q12h for 7 days</td></tr>
<tr><td colspan="2">If unable to tolerate oral:
Ceftriaxone 1 g IV q24h for 7 days

If suspected pathogen include:

<u>ESBL/ampC organism:</u>
- change to Ertapenem 1 g IV q24h for 7 days

<u>Enterococcus faecalis</u>
- ADD Ampicillin 1 g IV q6h</td></tr>
<tr><td><u>SEVERE</u>

PYELONEPHRITIS or COMPLICATED UTI

(high fever, sepsis/septic shock, clinically unstable)</td><td>Meropenem 1 g IV q8h
AND
Vancomycin 15 mg/kg IV q12h

Duration: 7 days</td><td>If severe systemic/cutaneous adverse reaction to beta-lactams:
Ciprofloxacin 400 mg IV q8h
AND
Vancomycin 15 mg/kg IV q12h

If suspected pathogen include:
<u>MDR gram-negative organisms</u>
ADD Tobramycin 7 mg/kg IV q24h
(while investigations are pending)

Duration: 7 days</td></tr>
<tr><td colspan="3"><u>Notes</u>:
[a]Nitrofurantoin is excreted in the urine into the bladder, and exerts its bactericidal activity in the bladder. Therefore, nitrofurantoin is <u>not</u> indicated in the treatment of pyelonephritis or complicated UTI due to poor renal tissue levels. Generally avoid use if CrCl is less than 30 mL/min due to insufficient excretion into the bladder at the site of infection.
[b]Do <u>NOT</u> use <u>empirically</u> in men unless invasive disease (e.g., prostatitis, epididymitis) is ruled out.</td></tr>
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