This Portrait details your 2019–2020 first-line prescribing patterns for oral antibiotics used to treat uncomplicated lower urinary tract infections (UTI) and the current recommendations for BC.

### What is your first-line choice for uncomplicated UTI?

**How you prescribed**

- NITROFURANTOIN
  - should be the number one antibiotic prescribed as empiric therapy
  - 50% prescribed

- FOSFOMYCIN
  - should be reserved as first-line therapy for patients who cannot take nitrofurantoin due to allergy or creatinine clearance < 30 mL/min
  - 7% prescribed

- CIPROFLOXACIN, TRIMETHOPRIM-SULFAMETHOXAZOLE & OTHER ANTIBIOTICS
  - should not be used as first-line empiric therapy due to bacterial resistance rates in BC
  - 10% prescribed

**How BC family doctors prescribed**

- NITROFURANTOIN
  - 62% prescribed

- FOSFOMYCIN
  - 6% prescribed

- CIPROFLOXACIN
  - 11% prescribed

- Trimethoprim-sulfamethoxazole
  - 13% prescribed

- Other (e.g. amoxicillin, cephalexin, etc.)
  - 11% prescribed

**NUMBER OF PATIENTS INCLUDED IN YOUR PRESCRIBING PORTRAIT:**

0–20

**PLEASE NOTE:**

Inaccuracy in your personal prescribing portrait may arise from incomplete patient visit data or imprecise diagnosis coding.


2 A list of antibiotics included can be found at www.ti.ubc.ca/portrait-UTI.
Why is nitrofurantoin recommended for empiric treatment of uncomplicated UTI?

Because various antibiotics achieve similar symptom resolution for uncomplicated UTI, treatment choice should reflect local bacterial resistance patterns. *E. coli* is responsible for the majority of uncomplicated UTIs. *E. coli* resistance to nitrofurantoin has remained low in BC, despite increasing utilization. Overuse of fluoroquinolones, TMP-SMX, and other antibiotics is contributing to resistance in *E. coli* and other enteric Gram-negative organisms.

![Percent of *E.coli* isolates resistant (2008–2019)](image)

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</thead>
<tbody>
<tr>
<td>Nitrofurantoin</td>
<td>6%</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
<td>2%</td>
<td>1%</td>
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<td>Amoxicillin</td>
<td>10%</td>
<td>12%</td>
<td>15%</td>
<td>18%</td>
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<td>22%</td>
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<td>28%</td>
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<td>Cephalexin</td>
<td>20%</td>
<td>22%</td>
<td>24%</td>
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<td>30%</td>
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<td>Ciprofloxacin</td>
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<td>TMP-SMX</td>
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<td>44%</td>
<td>46%</td>
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<td>56%</td>
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<td>Fosfomycin</td>
<td>50%</td>
<td>52%</td>
<td>54%</td>
<td>56%</td>
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<td>60%</td>
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<td>66%</td>
<td>68%</td>
<td>70%</td>
<td>72%</td>
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3 BC data from the BC Centre for Disease Control Antimicrobial Resistance Dashboard; 99% of *E. coli* isolates are from urine samples.

4 Fosfomycin resistance rates may not be accurate; current available susceptibility methods do not detect all mechanisms of resistance.

Data & Definitions

**Patients included:** Nonpregnant women age ≥ 15 enrolled in MSP who received an oral antibiotic from a BC community pharmacy in 2019-2020 within 5 days of UTI diagnosis coded in an MSP claim without systemic antibiotic use in the prior 3 months. A woman is assigned to your Portrait if you diagnosed her UTI and she filled a prescription with your prescribing number. Prescribing data shown for visits coded as cystitis (ICD-9 595, 595.0, 595.3-595.9), UTI site not specified (599, 599.0, 599.8, 599.9), symptoms involving urinary system or dysuria (788, 788.9, 788.1), other disorders of bladder (596.X), hematuria (599.7), or nonspecific findings on examination of urine (791.X).

**Patients excluded:** Patients with complicated UTI were excluded. Complicated UTI was based on recurrent UTI or recent discharge from hospital, concomitant STI or pyelonephritis, dialysis, chronic kidney disease, visits to a nephrologist, indwelling catheter, or a structural or functional abnormality of the urinary tract. Patients in palliative and long-term care (PharmaCare plans P or B) were excluded.

FOR REFERENCES AND DETAILED DEFINITIONS SEE: WWW.TI.UBC.CA/PORTRAIT-UTI