

# Impact of a Multi-Faceted Stewardship Intervention on Oral Fosfomycin Prescribing for Treatment of Resistant Organisms in Cystitis

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72 (90)

> 0.99

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## Background

- Fosfomycin is an oral antibiotic with activity against resistant bacteria that is recommended as first line treatment for cystitis <sup>1,2</sup>
- Using an oral agent for resistant cystitis may be beneficial due to decreased hospitalizations and clinic visits to manage IV therapy
- Use may be limited by cost<sup>3</sup>

### Methods

- Two-site, observational, quasi-experimental study in adult patients diagnosed with cystitis caused by:
  - Extended spectrum beta-lactamase (ESBL) *E. coli*, vancomycin-resistant *Enterococcus* (VRE), or fluoroquinolone-resistant *Pseudomonas*



- Primary outcome: rate of fosfomycin use
- Reviewed 306 patients, 148 met eligibility criteria

### Discussion

- A simple stewardship intervention lead to increased fosfomycin use for resistant cystitis
- Education for providers and pharmacists could be considered to promote optimal use

After implementing a multi-faceted stewardship intervention, including routine fosfomycin susceptibility reporting for resistant cystitis:

- Fosfomycin use significantly increased
- > Rate of adverse events did not increase



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#### Results Table 1. Baseline Characteristics Pre-implementation | Post-implementation | Characteristic n (%) p-value (N=80)(N=68)Age [years, median (IQR)] 67 (50-77) 0.73 66 (52-76) 56 (82) 63 (79) 0.68 Female 0.45 Outpatient treatment 58 (85) 72 (90) Complicated cystitis 55 (81) 66 (93) 0.83

62 (91)

ESBL E. coli

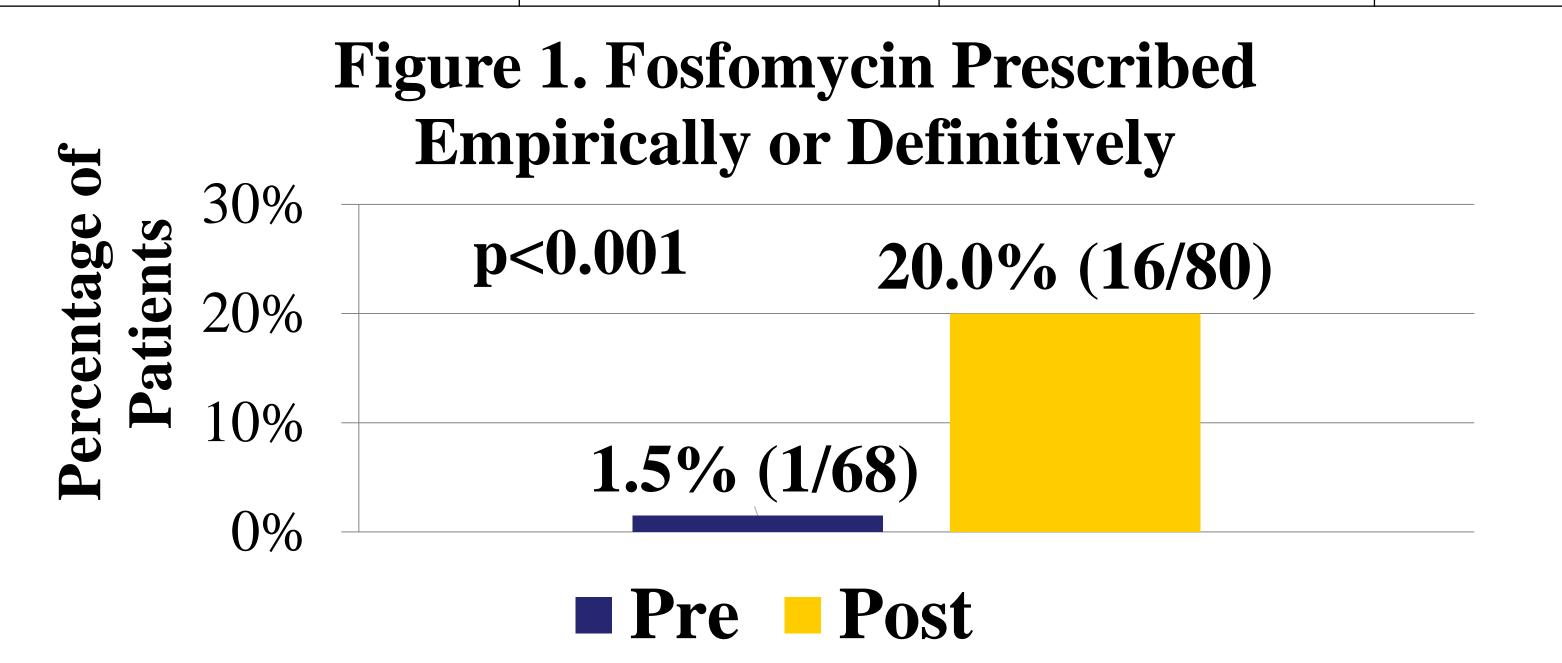


Table 2. Secondary Outcomes			
Outcome n (%)	Pre-implementation (N=68)	Post-implementation (N=80)	p-value
Appropriate fosfomycin dosing	0/1 (0)	3/16 (19)	>0.99
Prescribed non-susceptible antibiotic	10 (15)	7 (9)	0.31
Adverse reaction	3 (4)	4 (5)	>0.99
Subsequent isolate resistant to initial antibiotic	1/13 (8)	2/5 (40)	0.17
Positive urine culture within 30 days	13 (19)	5 (6)	0.023
Antibiotics for cystitis within 30 days	10 (15)	3 (4)	0.037