



Fosfomycin Utilization and Outcomes in a Large VA Medical Center Over a Decade

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Background

- Urinary tract infection (UTI) is one of the most common infectious diagnoses
- 2007 accounted for 10.5 million primary care visits
- Advancing age and comorbidities, CKD, DM, affect antimicrobial prescribing habits
- Sulfamethoxazole/trimethoprim (SMX-TMP), nitrofurantoin, and fosfomycin are first line recommendations for uncomplicated cystitis
- In an aging male population with potential allergies or contraindications to the above, fosfomycin is a potential option for treatment

Objectives

- Describe current fosfomycin prescribing practices at JAHVH (indication, duration of therapy, organism, and susceptibility pattern)
- Determine rates of clinical cure at 30-days for patients treated with fosfomycin

Methods

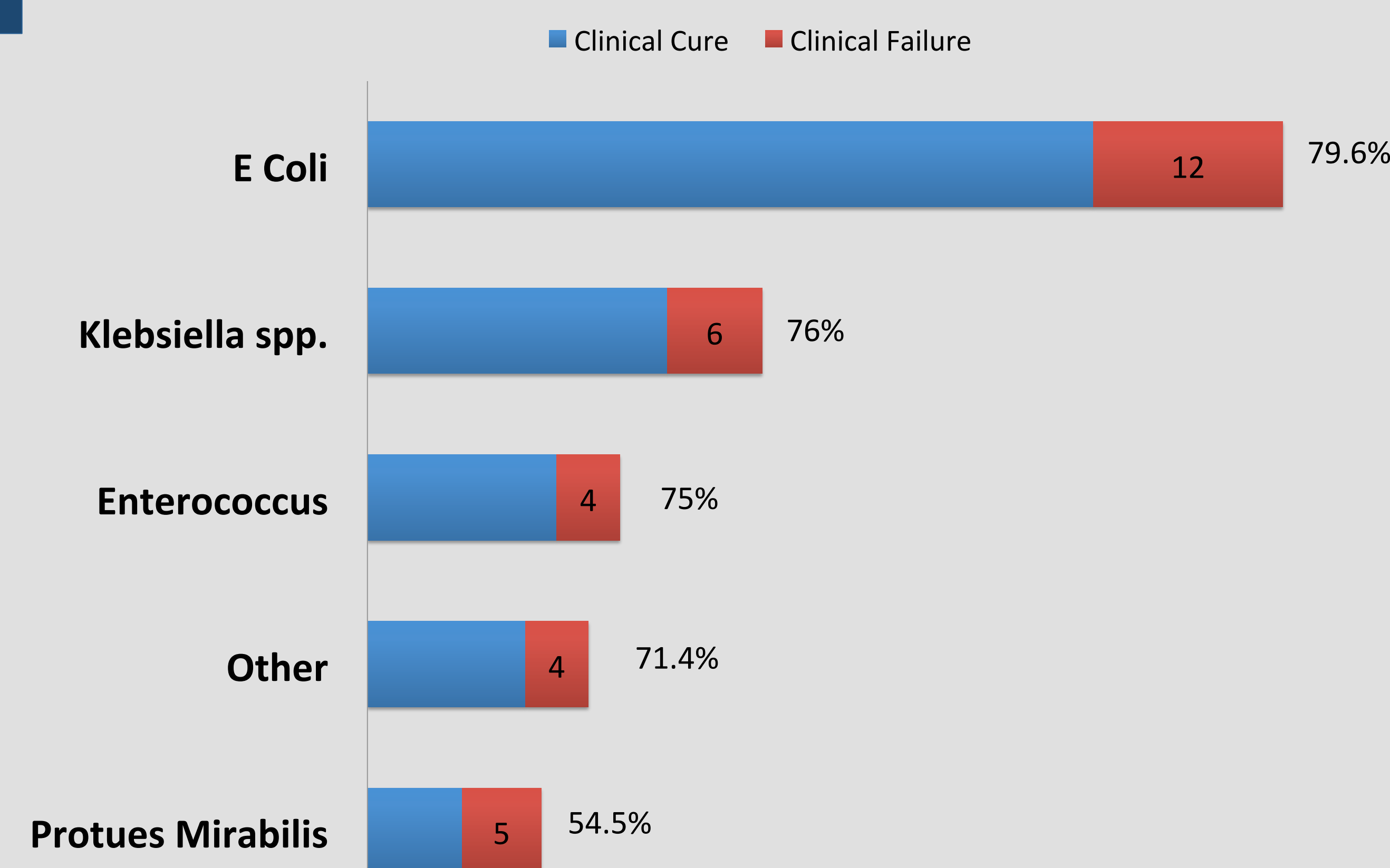
- Single center, retrospective chart review
- 1/1/2004 – 12/5/2017
- All fosfomycin prescriptions were reviewed
- Reviewed indication of use, organism (s) isolated, dosage, CKD, and treatment success
- Clinical cure was defined as symptom resolution and no representation with UTI symptoms for 30 days

Results

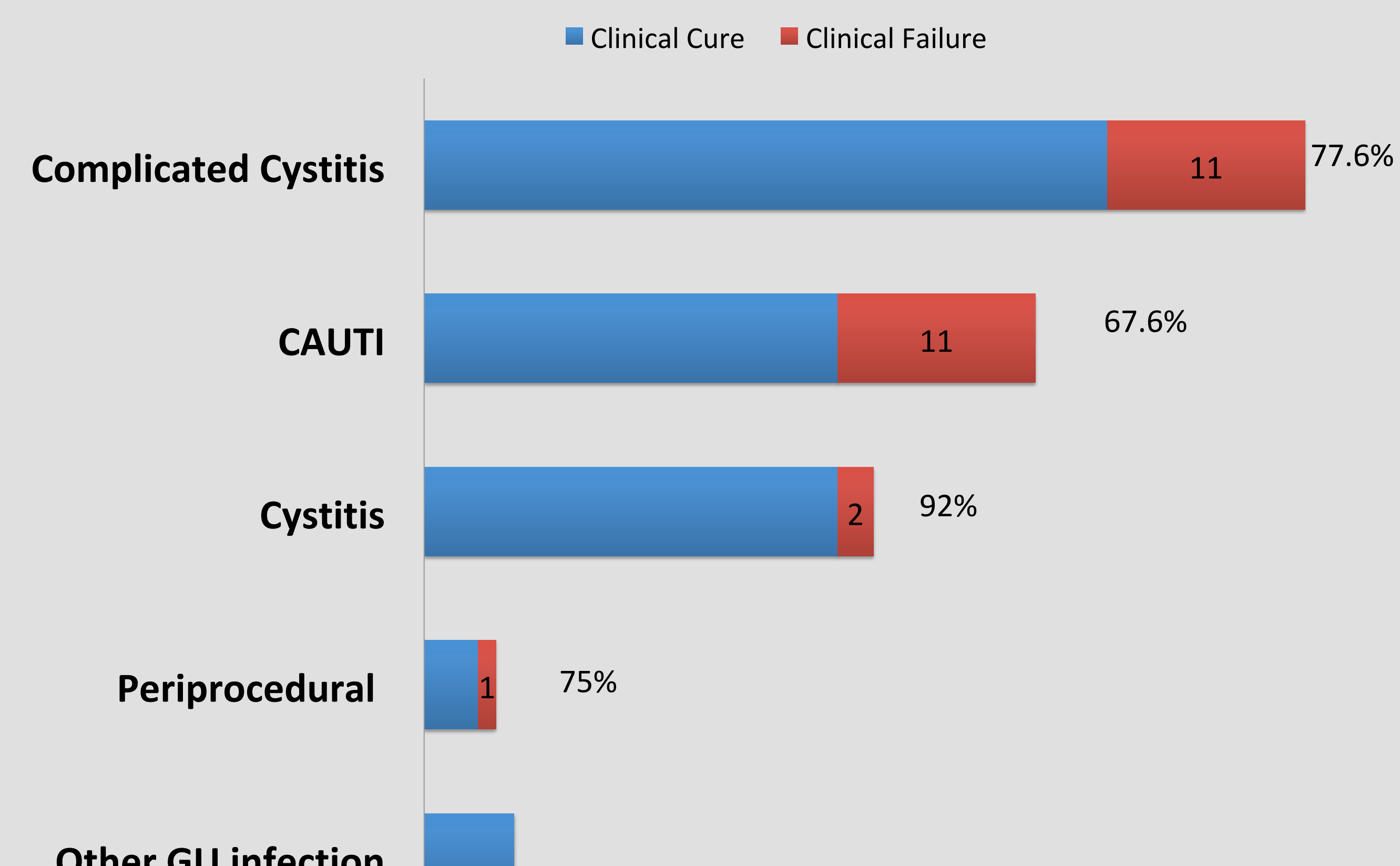
Summary of Patient Characteristics & Outcomes

Demographic Trait	Number (%)	Cures Number (%)	Failures Number (%)
N=117			
Gender – Male	106 (90.6)	84 (79.2)	22 (20.8)
Initial Setting – Inpatient	63 (53.8)	51 (81)	12 (19)
Cystitis	25 (21.4)	23 (92)	2 (8)
Complicated Cystitis	49 (41.9)	38 (77.6)	11 (22.4)
CAUTI	34 (29.1)	23 (67.6)	11 (32.4)
<i>E. coli</i>	58 (49.6)	46 (79.3)	12 (20.7)
<i>Klebsiella spp.</i>	25 (21.4)	19 (76)	6 (24)
ESBL	67 (54)	53 (79)	14 (21)
ESBL UTI in past year	47 (40.2)	34 (74)	12 (26)
Age			
18-34 y	7 (5.9)	4 (57.1)	3 (42.9)
35-49 y	10 (8.5)	7 (70)	3 (30)
50-74 y	64 (54.2)	53 (82.8)	11 (17.2)
≥ 75 y	37 (31.4)	31 (83.8)	6 (16.2)
CKD Stage			
Stage 1 or 2	68 (57.6)	50 (73.5)	18 (26.5)
Stage 3a	11 (9.3)	8 (72.7)	3 (27.3)
Stage 3b	21 (17.8)	19 (90.5)	2 (9.5)
Stage 4	9 (7.6)	9 (100)	0
Stage 5	3 (2.5)	3 (100)	0
Unknown	6 (5.1)	6 (100)	0
Doses			
1 dose	30 (25.6)	25 (83.3)	5 (16.7)
2 doses	15 (12.7)	13 (86.7)	2 (13.3)
3 doses	53 (44.9)	34 (64.2)	19 (35.8)
≥ 3 doses	19 (16.1)	12 (63.2)	7 (36.8)

30 day Clinical Cure by Organism



30 Day Clinical Cure by Indication of Use



Discussion/Conclusion

- Fosfomycin is an antibiotic recommended for simple cystitis due to its safety profile, less collateral damage (less gutflora disturbance), and low resistance as currently known
- This study displays the largest ESBL cohort treated with Fosfomycin identified in the literature and uniquely used in a predominant male population
- Our data suggests that ESBL producing bacteria can be treated successfully with fosfomycin in a male population (79% cases successfully treated) including those with uncomplicated cystitis
- Caution should be used with catheterized patients as treatment was less effective (failure rate 32%), regardless of isolated bacteria
- This data suggests fosfomycin may be an option for males with cystitis and in select patients with complicated UTI

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