

BACKGROUND

- Urinary tract infections (UTIs) are one of the most common bacterial infections encountered by physicians in the Emergency Department (ED).
- UTIs are most commonly caused by gram-negative organisms; however, antibiotic resistance to guideline-recommended first-line agents among uropathogens has been increasing, with statistically significant increases in *Escherichia coli*.
- Unnecessary or inappropriate antibiotic use can lead to more resistance and result in adverse patient outcomes, which is why the ED is an important setting to address appropriate and inappropriate prescribing habits for UTI treatment.
- Management of UTIs in the ED setting should require a systematic approach to confirm the presence of infection, UTI classification (complicated or uncomplicated), and risk factors based on a local antibiogram in order to select the appropriate dose and duration of the empiric antibiotic regimen.

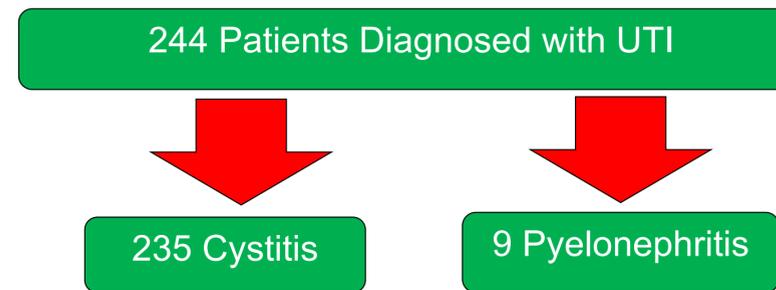
OBJECTIVE

- To evaluate the antibiotic prescribing patterns for patients discharged from the emergency department with the diagnosis of cystitis or pyelonephritis.

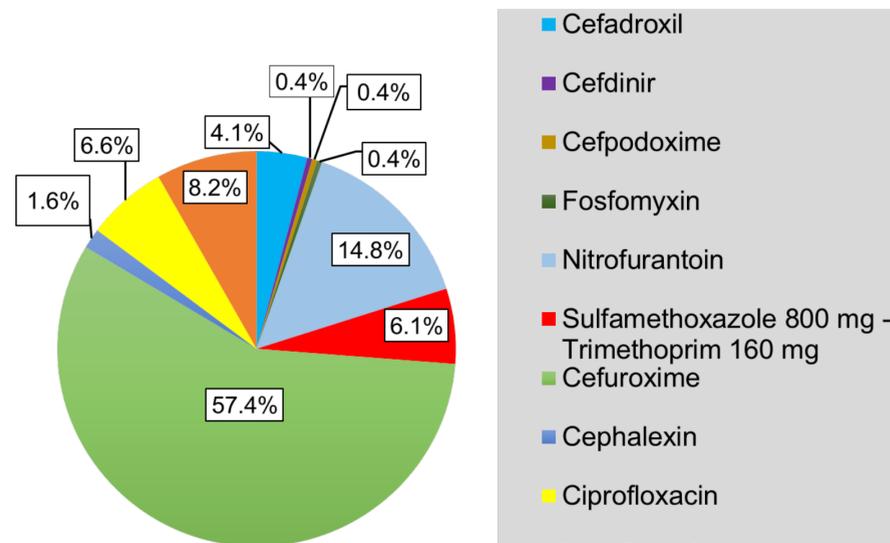
METHODS

- Single center, retrospective review
- Patient profiles in the electronic medical record who were prescribed oral antibiotics from January 2020 to July 2020 with a diagnosis of cystitis or pyelonephritis of any type were reviewed.
- Inclusion criteria: ≥18 years of age, prescribed oral antibiotics, diagnosis of cystitis or pyelonephritis.
- Exclusion criteria: ED pharmacist interventions made on oral antibiotics prescribed for urinary tract infections, patients that were admitted, and situations where urinary tract infection diagnosis was ruled out.
- Data was collected on the basis of indication, antibiotics prescribed on discharge, dose and duration of therapy.

RESULTS



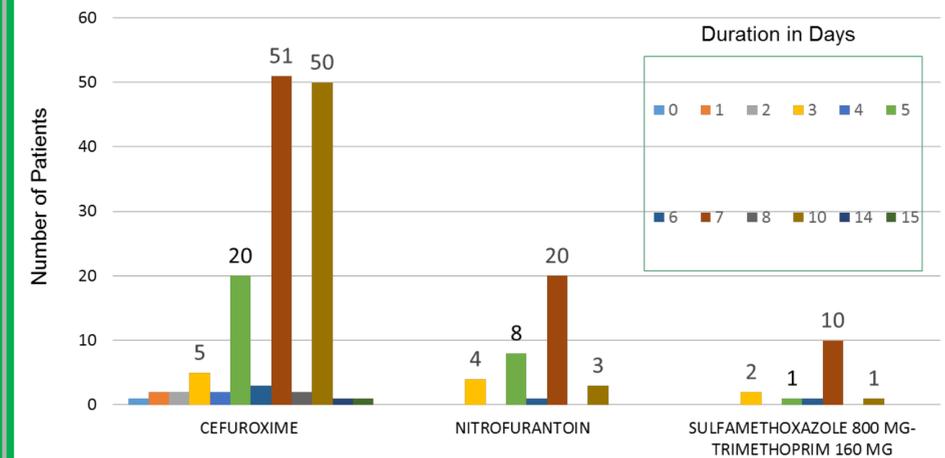
Most Commonly Prescribed Antibiotics in the ED



	Overall	Cystitis	Pyelonephritis
Mean Duration of Antibiotics	7.1 days	6.9 days	10.4 days
Median Duration of Antibiotics	7 days	7 days	10 days

RESULTS (cont.)

Duration of the Top Three Most Commonly Prescribed Antibiotics



DISCUSSION

- Of the 244 patients reviewed, 235 had a primary diagnosis of cystitis and 9 had pyelonephritis.
- At 57%, cefuroxime was the most commonly prescribed oral antibiotic for empiric UTI treatment. CHI's local antibiogram shows that *Escherichia coli* is 83% susceptible to cefuroxime.
- There was similar mean and median durations of therapy for both cystitis and pyelonephritis.
- Similar durations of therapy were selected across multiple different antibiotic classes with 7 days of treatment being the most commonly selected.
- More education and training is needed with ED providers about local susceptibility patterns and selection of the most optimal duration of therapy.

DISCLOSURE PANEL

The authors of this presentation have the following information regarding possible financial or personal relationships with commercial entities that have a direct or indirect interest in the subject matter of this presentation to disclose:

- La'Travia Howard, Pharm.D., MBA: Nothing to disclose
- Jacob Burnett, Pharm.D., BCPS: Nothing to disclose