

Evaluation of Empiric Antibiotic Prescribing in Patients with Uncomplicated Urinary Tract Infections in Outpatient Clinics

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1. Purpose

Optimal antimicrobial therapy should most specifically target a given pathogen or disease for the appropriate duration. According to the Centers for Disease Control (CDC), approximately half of outpatient antibiotic prescribing in humans might be inappropriate, including antibiotic selection, dosing, or duration. The CDC reports at least 30% of outpatient antibiotic prescriptions in the United States are unnecessary. The purpose of this study is to evaluate the appropriateness of antibiotic use for uncomplicated urinary tract infections in an outpatient clinic setting.

2. Methods

The study is intended to be a retrospective, cohort review assessing prescribing habits for uncomplicated urinary tract infections in outpatient clinics with established primary care providers (cohort 1) versus walk-in clinics (cohort 2). Patients will be included if they were diagnosed in one of the outpatient CoxHealth clinics from January 1, 2019 to June 30, 2019. Data collected will include females between 18 and 65 years of age. Every third patient will be selected at random until 50 subjects are enrolled in each cohort. The primary outcome of this study is to evaluate the appropriateness of antibiotic use for uncomplicated urinary tract infections in an outpatient clinic setting. Primary endpoints include percent of sample population with appropriate antibiotics prescribed based on all three criteria: antibiotic selected, appropriate dose, and appropriate duration. This data will then be evaluated to identify areas for improvement in empiric antibiotic prescribing in patients diagnosed with uncomplicated urinary tract infections in outpatient clinics within our institution.

3. Results

The primary outcome was met in 16 (32%) patients in the primary care clinics vs 14 (28%) in the walk-in clinics. The primary outcome included percent of patients with appropriate antibiotic, appropriate dose, and appropriate duration. 42 (84%) patients in the primary care clinics received the appropriate antibiotic selection vs 48 (96%) in the walk-in clinics. 30 (60%) patients in the primary care clinics received the appropriate dose vs 47 (94%) in the walk-in clinics. 16 (32%) patients in both cohorts received the appropriate duration for empiric therapy.

4. Conclusion

The results of this study suggest provider education could improve empiric therapy selection. Future directions of this study could allow pharmacist involvement in the expansion of outpatient antimicrobial stewardship within our institution.

Learning objective:

To identify areas of opportunity for outpatient antimicrobial stewardship.