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Implementation of education with ongoing feedback for the appropriate treatment and diagnosis of urinary tract infections: Antimicrobial Stewardship Collaborative with Colorado Hospital Association

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PURPOSE

- Urinary tract infections (UTIs) are one of the most common indications for antibiotics among hospitalized patients
- Colorado Hospital Association (CHA) has implemented an Antimicrobial Stewardship Collaborative as a result of:
  - Inappropriate treatment of asymptomatic bacteriuria
  - Increased urinary pathogen resistance
- The goals of this collaborative include the following:
  - Decrease the rate of Clostridium difficile infection (CDI)
  - Reduce fluoroquinolone (FQ) use for UTIs
  - Limit duration of treatment for UTIs
  - Reduce readmission rates for UTIs
  - Improve the accurate diagnosis of UTIs according to the Infectious Diseases Society of America (IDSA) guidelines

METHODS

Study Design:
- Pre- and post-implementation project: combined retrospective chart review and prospective, post-implementation study

Inclusion Criteria:
- Patients discharged from Swedish Medical Center (SMC) with a primary or secondary diagnosis of a UTI

Exclusion Criteria:
- <18 years of age
- Pregnancy
- Discharge antibiotic and/or duration unknown

Baseline Data Collection:
- Chart review of 80 randomly selected patients during 2014

Intervention Phase:
- Daily audit of FQ prescribing for UTIs with feedback to providers
- Bimonthly educational sessions
- Distribution of UTI diagnosis algorithms
- Quarterly review of 20 randomly selected patients with UTI diagnoses

RESULTS

- Appropriate UTI Diagnosis (%)
  - Baseline: 48%
  - POST Implementation: 54%
- FQ Prescribing (%)
  - Baseline: 56%
  - POST Implementation: 43%
- Readmission for UTI (%)
  - Baseline: 5%
  - POST Implementation: 1%

CONCLUSIONS / EVALUATION

- Fluoroquinolone prescribing and readmissions for UTIs have decreased
- Some improvement in the appropriate diagnosis of UTIs has been shown
- Expect to see continued decreases in the treatment of asymptomatic bacteriuria with daily education
- Pharmacist education of providers is a highly effective way to improve appropriate use of antimicrobials
- Ongoing participation in the collaborative will continue until July 2017 to show sustainability of interventions

DISCLOSURES

Authors of this presentation have nothing to disclose concerning potential financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:
- Audra Wilson: Nothing to disclose
- Kylie Mueller: Nothing to disclose
Appropriate UTI Diagnosis

Baseline  POST Implementation
Readmission for UTI

Baseline vs POST Implementation