**APPROPRIATENESS OF TOTAL DURATION OF ABX THERAPY FOR DISCHARGED PATIENTS**

Introduction

Several studies have shown that for most patients, two-thirds of the total duration for common infections is completed after hospital discharge. Duration of treatment for outpatient antibiotic treatment is often selected without regard to antibiotics received while inpatient, and this leads to excessive total duration of antimicrobial therapy. Longer courses of antibiotics can lead to an increased risk for adverse events and a greater risk for emergence of antibiotic resistance. Adverse outcomes may include an emergency department visit, readmission, *Clostridium difficile* infection, or death.

Multiple randomized controlled clinical trials have demonstrated that, for many common infections, shorter courses of antibiotics are as effective as longer courses. The purpose of this study was to determine the impact of a prospective stewardship intervention on total duration of antibiotic therapy and associated clinical outcomes in hospitalized patients discharged on oral antibiotic therapy.

Methodology

This was a single center, quasi-experimental retrospective cohort study evaluating patients before (January 1, 2020 to May 31, 2020; historical control group) and after (February 1, 2021 to June 30, 2021; intervention group) the implementation of a pharmacist-driven stewardship initiative consisting of a hospital guideline for oral antibiotic selection, total duration, and audit 24 hours before discharge with prescribing recommendations for outpatient treatment to providers.

Results

Between January 1, 2020 and May 31, 2020, a total of 94 patients were included in the historical control group. There were 1,139 total days of antimicrobial therapy, 372 (32.6%) of which were determined unnecessary. The median duration of unnecessary antibiotics per patient was 4 days; 63% of total antibiotic usage occurred after discharge. Excessive duration of antibiotic therapy during incident hospitalization occurred in only 8 patients. There was a single case of infection recurrence within 30 days of completion of antibiotic therapy. Seven patients were readmitted to the hospital within 30 days, one of whom was admitted for *Clostridium difficile* infection after receiving an outpatient prescription for sulfamethoxazole-trimethoprim (Bactrim) prophylactically in the setting of urinary catheter placement after prostatectomy. The top reasons for inappropriate duration were surgical prophylaxis and prophylaxis to prevent urinary tract infection in the setting of an indwelling urinary catheter.

Data for the intervention group is currently being collected.