Abstract of Proposal

Antimicrobial resistance has been recognized as one of the most serious threats to public health. Each year more than two million people in the United States become infected with drug-resistant microorganisms of which many are unable to be treated with first-line antimicrobial therapy. Of these patients 23,000 pass away as a direct result of their infection, according to the Centers for Disease Control and Prevention (CDC).[1] Antimicrobial resistance is commonly caused by the inappropriate prescribing of antibiotics and can lead to increased morbidity, mortality, and healthcare resource utilization.[2,3] In recent years there has been heightened awareness of antimicrobial resistance and a push to improve antimicrobial prescribing through initiation of antimicrobial stewardship programs.

Pharmacist-led initiatives, including culture follow-up for discharged patients, have been shown to improve time to patient follow-up and decrease revisits to the emergency department (ED).[4-7] In April 2015, the Mercy Health Saint Mary's (MHSM) infectious diseases (ID) and ED pharmacists, with support from urgent care, ED, and ID providers, developed and initiated a collaborative practice agreement (CPA) which allows for pharmacist-led culture follow-up to the hospital's two affiliated, free-standing urgent care facilities. This CPA allows for ID and ED pharmacists along with trainees (PGY1 residents and P4 students) to independently conduct follow-up of microbiologic results (e.g cultures and serologies) for all patients discharged home from urgent care. Along with initiating the pharmacist-led culture follow-up program, education was provided by the ID and ED pharmacy team to the urgent care provider staff including orientation to the hospital's outpatient antibiograms and outpatient empiric therapy guidelines. The goal of this pharmacist-led culture follow-up program in the urgent care setting was to improve antimicrobial prescribing and subsequent healthcare resource utilization.

Our study objectives will assess the difference in outcomes between the previous standard of care and the pharmacist-led culture follow up program by comparing total antibiotic treatment appropriateness, time to appropriate antimicrobial treatment, and healthcare resource utilization costs between cohorts. These objectives will be accomplished by performing a quasi-experimental study before and after the implementation of this new culture follow-up program in the Mercy Health affiliated urgent care centers. Each of the objectives is relevant to the stewardship goals of the MHSM Department of Pharmacy Services and to the antimicrobial stewardship program. Achievement of these objectives will serve to strengthen the role of pharmacist-managed antimicrobial stewardship in the outpatient setting as supported by the strategic goals of American Society of Health-System Pharmacists (ASHP) and the Pharmacy Practice Model Initiative outlined by the ASHP Foundation.