**Impact of antimicrobial stewardship education using a de-identified, provider-specific prescribing scorecard on outpatient antibiotic prescribing practices**

*Presented by:* Jillian Barrack, PharmD, Saint Francis Hospital and Medical Center, Hartford, CT
*Co-authors***:** J. Barrack, A. Williams, D. Wiskirchen; Saint Francis Hospital and Medical Center, Hartford, CT

**Objective**Inappropriate antibiotic prescribing is the most important risk factor leading to antibiotic resistance. A previous evaluation of antibiotic prescribing at Saint Francis Hospital and Medical Center (SFHMC) identified sub-optimal prescribing for respiratory infections, urinary tract infections (UTIs), and skin and soft tissue infections (SSTIs) in the outpatient setting. In response, clinic pharmacists provided education to attending physicians using a de-identified provider-specific prescribing scorecard and antibiotic prescribing algorithms for the above indications. The purpose of this study is to assess the impact of this intervention on outpatient antibiotic prescribing.

 **Methods**This study was reviewed and approved by the Institutional Review Board at SFHMC. Outpatient antibiotic prescription data and medical records were reviewed for patients in adult primary care and continuity care clinics between July 1, 2017 to June 30, 2018 (pre-intervention) and April 1, 2019 and September 30, 2019 (post-intervention). Patient demographics, antibiotic prescriptions, indication, prescribing provider and drug allergies were collected. Investigators determined appropriate drug choice and duration of therapy based on the documented indication, drug allergies and clinical practice guidelines. The primary outcome was the rate of inappropriate antibiotic prescriptions for respiratory infections, SSTIs and UTIs before and after providing education with the de-identified provider-specific prescribing scorecard.

**Results**The rate of inappropriate antibiotic prescriptions for respiratory infections, SSTIs and UTIs combined was reduced from 74% to 56% following education with the de-identified prescriber scorecard (p<0.001). This improvement was largely driven by reductions in inappropriate prescribing for SSTIs (97% pre-intervention, 67% post-intervention, p<0.001) and UTIs (60% pre-intervention, 19% post-intervention, p = 0.002). Inappropriate prescribing rates for respiratory infections were unchanged (66% pre-intervention, 61% post-intervention, p=0.699).

**Conclusions**A one-time educational intervention using a de-identified provider-specific prescribing scorecard led to an 18.4% decrease in the rate of inappropriate antibiotic prescriptions for the three most common indications studied: respiratory infections, SSTIs, and UTIs. Use of a de-identified prescriber scorecard in providing stewardship education is effective in reducing inappropriate antibiotic prescribing in an outpatient setting where ongoing stewardship resources are limited; however, additional strategies may be needed to drive and sustain further improvement in antimicrobial prescribing.