In total, 26 residents participated. All (100%) agreed or strongly agreed that the SRS workshop helped them identify at least 1 way they could improve their antibiotic prescribing in the outpatient setting. Also, 20 participants (77%) agreed or strongly agreed that the SRS workshop improved their understanding of when to prescribe antibiotics and how to practice antibiotic stewardship in the outpatient setting. Moreover, 23 (88%) agreed or strongly agreed that the SRS workshop improved their understanding of how to obtain data on their own practice habits. Further analyses of the pre- and postintervention periods are required to determine whether this intervention significantly impacts testing rates over time, as well as to determine the durability and safety of the CCDS-LA. Additional analyses are also needed to assess the impacts on hospital-onset CDI rate and the associated costs.

**Background:** Antibiotic stewardship programs (ASPs) have traditionally focused on inpatient prescribing, but they are now mandated to involve ambulatory settings. We developed and tested an educational tool to resident physicians to empower outpatient providers to perform self-reflection stewardship (SRS) to improve their antibiotic use. Results of the first SRS workshop are reported. **Methods:** A 90-minute SRS workshop focusing on the evaluation and management of sinusitis in ambulatory care was developed for PGY 2-3 internal medicine residents. Participants received a 15-minute didactic on the evaluation and management of adults with sinusitis, including typical microbiology, differentiation of bacterial sinusitus, and guideline recommendations on antibiotic treatment. In a computer lab, participants were instructed how to review charts of patients they had treated with antibiotics for sinusitis during the past year using the SlicerDicer application in Epic. Over 1 hour, they worked in pairs to complete and discuss a self-reflection inventory for 5 patients from each of their respective reviews. They evaluated pertinent history, comorbidities, presenting symptoms and signs, diagnostic testing performed, and self-assessment of the subsequent antibiotic prescribing, including appropriateness of using an antibiotic, antibiotic choice and duration. In addition, they reflected on potential patient and prescriber challenges. Residents then identified common themes and developed a personal improvement plan for antibiotic prescribing for sinusitis. The last 15 minutes were spent debriefing with ASP faculty on reasons for overprescription of antibiotics for URIs and individual improvement plans. Residents completed workshop evaluations using a Likert scale and open-ended comments.

**Results:** In total, 26 residents participated. All (100%) agreed or strongly agreed that the SRS workshop improved their understanding of how to obtain data on their own practice habits. Moreover, 23 (88%) agreed or strongly agreed that the workshop improved their understanding of when to prescribe antibiotics and how to practice antibiotic stewardship in the outpatient setting. Also, 20 participants (77%) agreed or strongly agreed that the SRS workshop helped them gain insight into reasons why they might overprescribe antibiotics in the outpatient setting. Furthermore, 25 (96%) agreed or strongly agreed that the SRS workshop helped them identify at least 1 way they could improve their antibiotic prescribing in the outpatient setting. **Disclosures:** None

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A Self-Reflection Stewardship Workshop Improves Resident Physician Understanding of Ambulatory Antibiotic Stewardship

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**Presentation Type:** Poster Presentation

A Simple Cleaning Intervention to Prevent Transmission of Carbapenemase-Producing Enterobacteria from Hospital Sinks

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Background: A prolonged outbreak of carbapenemase-producing *Serratia marcescens* (CPSM) was identified in our quaternary healthcare center over a 2-year period from 2015 through 2017. A reservoir of IMP-4–producing *S. marcescens* in sink drains of clinical hand basins (CHB) was implicated in propagating transmission, supported by evidence from whole-genome sequencing (WGS). We assessed the impact of manual bioburden reduction intervention on further transmission of CPSM. Methods: Environmental sampling of frequently touched wet and dry areas around CPSM clinical cases was undertaken to identify potential reservoirs and transmission pathways. After identifying CHB as a source of CPSM, a widespread annual CHB cleaning intervention involving manual scrubbing of sink drains and the proximal pipes was implemented. Pre- and postintervention point prevalence surveys (PPS) of CHB drains performed to assess for CPSM colonization. Surveillance for subsequent transmission was conducted through weekly screening of patients and annual screening of CHB in transmission areas, and 6-monthly whole-hospital PPS of patients. All CPSM isolates were assessed by WGS. Results: In total, 6 patients were newly identified with CPSM from 2015 to 2017 (4.3 transmission events per 100,000 surveillance bed days [SBD]; 95% CI, 1.6–9.4). All clinical CPSM isolates were linked to CHB isolates by WGS. The CHB cleaning intervention resulted in a reduction in CHB colonization with CPSM in transmission areas from 72% colonization to 28% (ARR, 0.44; 95% CI, 0.25–0.63). A single further clinical case of CPSM linked to the CHB isolates was detected over 2 years of surveillance from 2017 to 2019 following the implementation of the annual CHB cleaning program (0.7 transmissions per 100,000 SBD; 95% CI, 0.0–3.9). No transmissions were linked to undertaking the cleaning intervention. Conclusions: A simple intervention targeted at reducing the biological burden of CPSM in CHB drains at regular intervals was effective in preventing transmission of carbapenemase-producing Enterobacterales from the hospital environment to patients over a prolonged period of intensive surveillance. These findings highlight the importance of detailed cleaning for controlling the spread of multidrug-resistant organisms from healthcare environments.

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A 6-Year Review of Carbapenemase-Producing Organisms in Alberta, Canada

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Background: This review describes the epidemiology of carbapenemase-producing organisms (CPO) in both the community and hospitalized populations in the province of Alberta. Methods: Newly identified CPO-positive individuals from April 1, 2013, to March 31, 2018, were retrospectively reviewed from 3 data sources, which shared a common provincial CPO case definition: (1) positive CPO results from the Provincial Laboratory for Public Health, which provides all referral and confirmatory CPO testing, (2) CPO cases reported to Alberta Health, and (3) CPO surveillance from Alberta Health Services Infection Prevention and Control (IPC). The 3 data sources were collated, and initial CPO cases were classified according to their likely location of acquisition: hospital-acquired, hospital-identified, on admission, and community-identified. Risk factors and adverse outcomes were obtained from linkage to administrative data. Results: In total, 171 unique individuals were newly identified with a first-time CPO case. Also, 15% (25 of 171) were hospital-acquired (HA), 21% (36 of 171) were hospital-identified (HI), 33% (57 of 171) were on