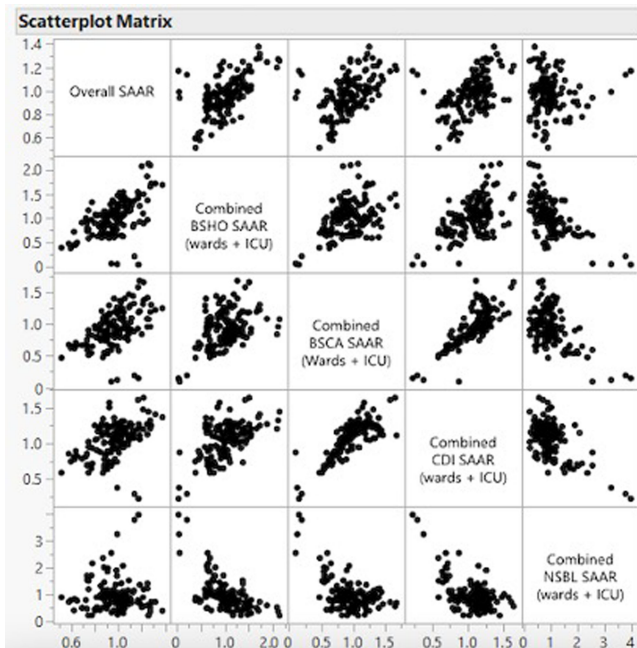


Network (NHSN) between 2017 and 2021. SAARs collected included: overall SAAR, broad-spectrum agents predominantly used for hospital-onset infections (BSHO), broad-spectrum agents predominantly used for community-acquired infections (BSCA), NSBL, and antibacterial agents posing the highest risk for *Clostridioides difficile* infection (CDI). Category SAARs were combined to include data in both the adult intensive care unit (ICU) and adult wards using the formula: [(total observed antimicrobial days ICU + total observed antimicrobial days ward) / (total predicted antimicrobial days ICU + total predicted antimicrobial days wards)]. Pearson correlation coefficient (r) was used to examine the correlation between various SAARs categories. **Results:** A total of 38 hospitals in South Carolina reported AU to NHSN at least during one calendar year during the study period. The use of NSBL agents was negatively correlated with the use of BSHO (r = -0.596, p < 0.001), BSCA (r = -0.543, p < 0.001), and high-risk CDI antibiotics (r = -0.601, p < 0.001). Moreover, the use of NSBL agents did not correlate with the overall SAAR (r = 0.008, p = 0.93), whereas the use of BSHO (r = 0.587, p < 0.001), BSCA (r = 0.494, p < 0.001), and high-risk CDI agents (r = 0.464; p < 0.001) positively correlated with the overall SAAR. **Conclusion:** In South Carolina hospitals, the use of NSBLs does not contribute to additional antibiotic use overall as it seems to replace broad-spectrum antimicrobials in various categories. By de-escalating from broad-spectrum agents to NSBL agents, one can improve antimicrobial use without negatively impacting the overall SAAR. This observation encourages implementation of antimicrobial stewardship interventions that increase utilization of NSBLs, when appropriate, such as de-escalation of antimicrobial therapy among others without concerns for increasing the SAAR for overall antibiotic use.

*Antimicrobial Stewardship & Healthcare Epidemiology* 2024;4(Suppl. S1):s56-s57  
doi:10.1017/ash.2024.172



**Presentation Type:**

Poster Presentation - Poster Presentation

**Subject Category:** Antibiotic Stewardship

**The Impact of Tele-Stewardship on Rural Antibiotic Prescribing Practices**

Matthew Peworchik, Vanderbilt University; Ritu Banerjee, Vanderbilt University Medical Center and Sophie Katz, Vanderbilt University Medical Center

**Background:** Antibiotic prescribing for children is highest in rural areas. Tele-stewardship allows for implementation of antimicrobial stewardship (AS) via telecommunication with providers. This study addresses need for better AS in rural areas by implementing and evaluating bundled outpatient AS interventions using tele-stewardship in rural pediatric primary care (PC) clinics and emergency departments (EDs) affiliated with Vanderbilt University Medical Center. **Methods:** The bundle includes (1) patient/guardian educational materials, (2) antibiotic use commitment posters (3) provider education through quarterly teaching pearls and app-based microlearning modules (QuizTime), and (4) quarterly audit/feedback with peer comparison on guideline-concordant antibiotic use via tele-meeting and email. Participants are pediatric prescribers (physician, physician assistant, nurse practitioner). We compared antibiotic prescription data for children < 18 years collected during the baseline period (Jan-Dec 2022) to the intervention period (Jan-Sept 2023). Two academic PC clinics and one ED where interventions were not implemented were

Figure 1: Change in Antibiotic Prescription Rate from 2022-2023

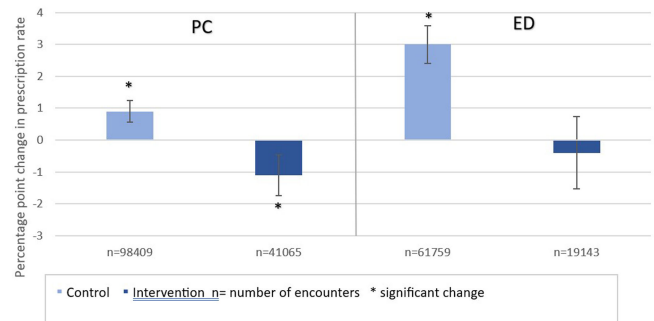
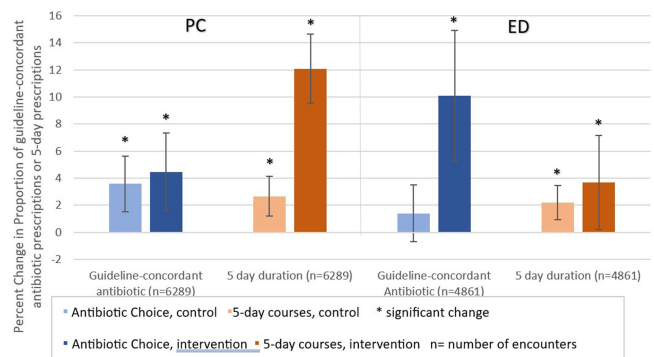


Figure 2: Acute Otitis Media



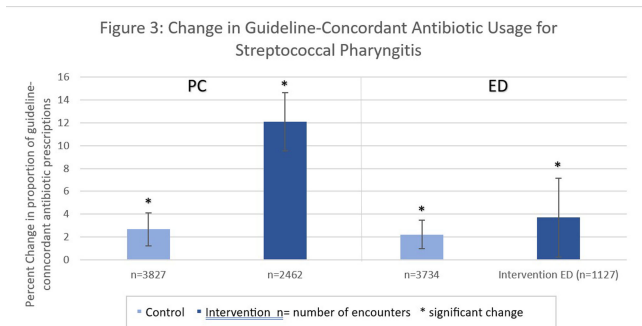


Figure 4: Sinusitis (Primary Care Only)

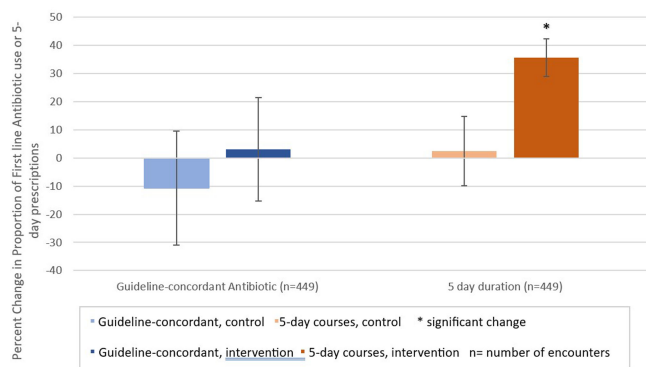
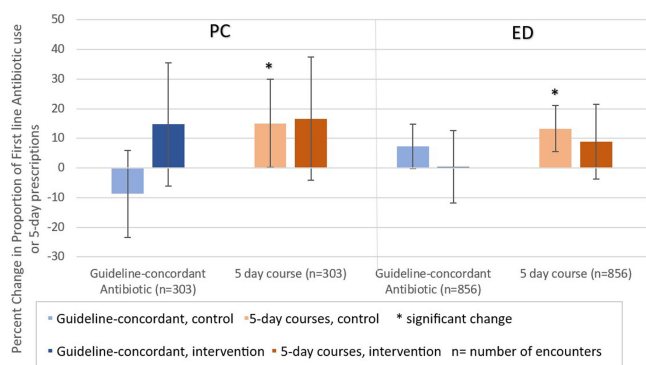
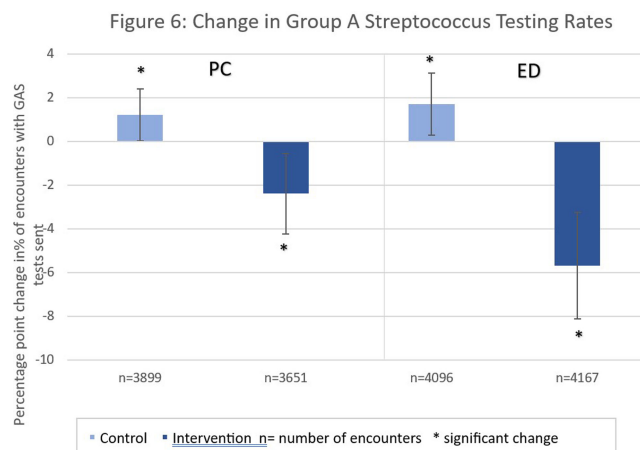


Figure 5: Pneumonia



included as “controls”. The primary outcome is percent of encounters that result in an antibiotic prescription. Secondary outcomes include (1) percent of encounters with guideline-concordant antibiotic choice for otitis media (AOM), streptococcal pharyngitis (GAS), sinusitis, and community-acquired pneumonia (CAP); (2) percent of encounters with 5-day antibiotic duration for AOM, sinusitis, and CAP; and (3) percent of encounters with rapid GAS testing. ED sinusitis data not analyzed due to small N. Significance was determined by calculating 95% confidence intervals for the difference of proportions. **Results:** There were 139,474 PC encounters (91,706 baseline and 47,768 intervention) and 94,205 ED encounters (54,138 baseline and 40,067 intervention) among 20 PC prescribers and 38 ED prescribers from January 2022-September 2023. Compared to baseline, the antibiotic prescription rate decreased 1.1% in intervention PCs but increased 0.9% in control PCs (Figure 1). Compared to baseline, the antibiotic prescription rate decreased by 0.4%



in the intervention EDs but increased 3.1% in the control ED (Figure 1). Secondary outcomes showed significantly increased proportions of guideline concordant ED AOM prescriptions, 5-day PC AOM prescriptions (Figure 2), guideline concordant ED streptococcal pharyngitis prescriptions (Figure 3), and guideline concordant PC sinusitis prescriptions (Figure 4). There was a decrease in GAS tests in intervention PCs and EDs (Figure 6). **Conclusions:** Interim analysis shows bundled implementation strategies using tele-AS led to significantly decreased overall antibiotic use in rural PC clinics compared to control sites. The study is ongoing and will continue to evaluate outcomes over a longer intervention period to reduce seasonal bias.

**Disclosure:** Sophie Katz: Research Grant - Pfizer; Research Grant - Dolly Parton Pediatric Infectious Diseases Research Fund; Consultant - Optum

*Antimicrobial Stewardship & Healthcare Epidemiology* 2024;4(Suppl. S1):s57-s58

doi:10.1017/ash.2024.173

**Presentation Type:**

Poster Presentation - Poster Presentation

**Subject Category:** Antibiotic Stewardship

**Qualitative Evaluation of an Antimicrobial Stewardship Tele-Mentoring Program in US Rural & Critical Access Hospitals**

Elizabeth Moore, Applied Inference, LLC; Ellen MacLachlan, University of Washington; Natalia Martinez-Paz, University of Washington; Maria Bajenov, University of Washington Medical Center; Rupali Jain, University of Washington Medical Center; Jeannie Chan, Harborview Medical Center; John Lynch, University of Washington, Harborview Medical Center; Paul Pottinger, University of Washington; Zahra Kassamali Escobar, Fred Hutchinson Cancer Center and Chloe Bryson-Cahn, University of Washington

**Background:** The University of Washington (UW) Center for Stewardship in Medicine (CSiM) supports a tele-antimicrobial stewardship (AMS) program (TASP) using the ECHO approach (Extension for Community Healthcare Outcomes) in small, rural, and Critical Access Hospitals (primarily in the western U.S.) with education, mentoring, organizational capacity building, and a community of peers. To evaluate the continuing education (CE) component of UW-TASP ECHO, CSiM surveyed individuals receiving CE credits as part of the program. This survey was designed to track individuals’ satisfaction with the program and to assess the impact of UW-TASP ECHO on AMS in participating facilities. **Methods:** The CE participants’ survey was completed annually by individuals participating in UW TASP ECHO using online survey software. The survey included closed-ended and open-ended questions. Responses to open-ended questions were entered into Atlas.ti qualitative analysis software and coded iteratively according to themes that emerged. When a new code emerged partway through the coding process, earlier surveys were re-coded for the new code. Final codes were grouped into themes and sub-themes and quotes from each theme identified were summarized and attached