Table 2: Days of Therapy (DOT) by Provider Type Across 3 Hospitals and 28 Quarters (July 2015-June 2022)

| | DOT (%), Quarter 1 | | | DOT (%), Quarter 28 | | | Change in % of DOT for APPs Q1 vs Q28 |
|---|---|---|---|---|---|---|---|
| | Physician | Trainee | APP | Physician | Trainee | APP | |
| **Antibacterials** | | | | | | | |
| Hospital 1 (University) | 18008 (35) | 24813 (48) | 9236 (18) | 17661 (34) | 19363 (38) | 14216 (28) | +10% |
| Hospital 2 (Community) | 6184 (61) | 3058 (30) | 978 (10) | 5559 (56) | 2675 (27) | 1699 (17) | +7% |
| Hospital 3 (Community) | 6627 (79) | 549 (7) | 1195 (14) | 7020 (71) | 860 (9) | 2046 (21) | +7% |
| **Antifungals** | | | | | | | |
| Hospital 1 (University) | 2373 (35) | 3296 (49) | 1630 (24) | 1875 (22) | 2504 (29 | 2919 (35) | +11% |
| Hospital 2 (Community) | 203 (61) | 114 (34) | 14 (4) | 190 (60) | 62 (20) | 60 (19) | +15% |
| Hospital 3 (Community) | 324 (74) | 61 (14) | 52 (12) | 367 (67) | 48 (9) | 130 (24) | +12% |
| **Antivirals** | | | | | | | |
| Hospital 1 (University) | 2788 (39) | 2709 (38) | 1636 (23) | 2707 (26) | 3558 (35) | 3969 (39) | +16% |
| Hospital 2 (Community) | 112 (60) | 63 (34) | 10 (5) | 269 (75) | 70 (19) | 20 (5) | 0% |
| Hospital 3 (Community) | 171 (85) | 3 (2) | 26 (13) | 524 (82) | 21 (3) | 95 (15) | +2% |
| **Protected** | | | | | | | |
| Hospital 1 (University) | 4450 (38) | 4681 (39) | 2719 (23) | 2758 (26) | 3600 (33) | 4434 (41) | +15% |
| Hospital 2 (Community) | 272 (56) | 174 (36) | 42 (9) | 432 (66) | 113 (17) | 112 (17) | +8% |
| Hospital 3 (Community) | 396 (79) | 58 (11) | 46 (9) | 448 (80) | 17 (3) | 93 (17) | +8% |

Note: DOT=days of therapy, APP=advanced practice provider, Q=quarter

Table 3. Change in Percent of Days of Therapy by Hospital and Provider-Type

| | Odds Ratio of Quarterly Change in Percent of DOT (Trainee vs. Physician) | Odds Ratio of Quarterly Change in Percent DOT (APP vs. Physician) |
|---|---|---|
| **Antibacterials** | | |
| Hospital 1 (University) | 0.991 (0.991-0.992) | 1.015 (1.014-1.015) |
| Hospital 2 (Community) | 1.005 (1.004-1.006) | 1.020 (1.019-1.021) |
| Hospital 3 (Community) | 1.020 (1.018-1.022) | 1.017 (1.016-1.019) |
| **Antifungals** | | |
| Hospital 1 (University) | 1.014 (1.013-1.016) | 1.033 (1.032-1.034) |
| Hospital 2 (Community) | 0.993 (0.987-0.998) | 1.030 (1.023-1.038) |
| Hospital 3 (Community) | 1.016 (1.008-1.023) | 1.029 (1.023 -1.034) |
| **Antivirals** | | |
| Hospital 1 (University) | 1.018 (1.017-1.020) | 1.039 (1.038-1.041) |
| Hospital 2 (Community) | 0.980 (0.974-0.986) | 1.016 (1.008-1.025) |
| Hospital 3 (Community) | 1.049 (1.034-1.065) | 1.009 (1.003-1.015) |
| **Protected** | | |
| Hospital 1 (University) | 1.018 (1.017-1.019) | 1.038 (1.037-1.039) |
| Hospital 2 (Community) | 0.994 (0.990-0.998) | 1.027 (1.021-1.033) |
| Hospital 3 (Community) | 1.018 (1.008-1.028) | 1.042 (1.036-1.048) |

Note: DOT=days of therapy. Multinomial logistic regression model used provider group category physician as the referent category.

antifungal agent groups were defined using National Healthcare Safety Network methods. We included anti-influenza and antiherpesvirus agents in the antiviral group. We defined protected agents as those targeted by hospital antimicrobial stewardship program policy (eg, requiring preauthorization). Provider type was defined by electronic health record user profiles in 3 categories: physician, trainees (residents, fellows and medical students), and APPs (nurse practitioners, physician assistants, and nurse anesthetists). We evaluated DOT per 1,000 days present over time by agent group to assess quarterly rate trends. Then, we calculated the percentage of total DOT by provider group. We used multinomial logistic regression to measure changes in percentage DOT across the clinician groups over time using physicians as the referent. **Results:** Across hospitals and provider groups, we observed an overall decrease in use rates for antibacterial and protected agents (17% each) and increased use rates for antiviral agents (38%) and antifungal agents (4%) (Table 1). Baseline distribution of DOT by provider group and change in distribution over time varied by hospital and agent group (Fig. and Table 2). The largest increases in percentage DOT attributed to APPs compared with physicians occurred in the university hospital with the following average increases per quarter: 1.5% for antibacterials, 3.9% for antivirals, 3.3% for antifungals, and 3.8% for protected agents (Table 3). Community hospitals had higher initial percentage DOT attributed to physicians, but both hospitals experienced increased percentage DOT attributed to APPs. Percentage DOT attributed to trainees varied significantly across agent groups and hospitals. **Conclusions:** Hospitals had differing baseline patterns of DOT attributed to provider groups, but all experienced increases in DOT attributed to APPs. APPs have increasing involvement in antimicrobial use decisions and should be engaged in future antimicrobial stewardship initiatives.

**Disclosures:** None

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**Presentation Type:**
Poster Presentation - Poster Presentation
**Subject Category:** Antibiotic Stewardship

**Handshake stewardship on adult acute-care surgical services**

Elizabeth Neuner; Kevin Hsueh; Michael Durkin and Sena Sayood

**Background:** Handshake stewardship is a variation of prospective audit and feedback that entails the individual review of patient charts by a physician–pharmacist collaborative team followed by in-person feedback to primary teams to communicate recommendations regarding optimal antibiotic use. Handshake stewardship has been shown to have durable effects in reducing antimicrobial use in children's hospitals, but data regarding this intervention in adult hospitals are scarce. In particular, no data are available regarding the impact of this type of stewardship intervention on adult surgical units. We examined the effect of a handshake stewardship intervention at a large academic medical center on adult trauma and acute- and critical-care surgery (ACCS) units. **Methods:** The antimicrobial stewardship program (ASP) at Barnes-Jewish Hospital launched a handshake stewardship intervention targeting surgical floor teams in January 2022. These teams included the ACCS teams and a number of other surgical services. The intervention consisted of once weekly reviews and in-person rounds with the surgical floor teams along with the establishment of a 7 day per week "hotline" in which the surgical teams could contact an ID physician or pharmacist with questions regarding antibiotic use. Patients with formal ID consultations were not reviewed. Recommendations were tracked including the type, the antibiotic targeted, and recommendation acceptance or rejection. Descriptive statistics were performed to analyze these results. At the end of 12 months, antibiotic use in the floors covered by the ACCS teams were pulled from the NHSN AU module to perform an interrupted time-series analysis 12 months before and after the intervention. **Results:** Overall, 3,127 charts were reviewed during the intervention period and 637 recommendations were made to all the surgical teams. Opportunities for antibiotic use optimization were identified in ~20% of antibiotic orders. The overall recommendation acceptance rate was 71%. In the ACCS units, 272 interventions were recommended, with an acceptance rate of 67%. The most frequent recommendations were for antibiotic discontinuation (37%), antibiotic de-escalation (17%), shortening duration (12%), and broadening coverage

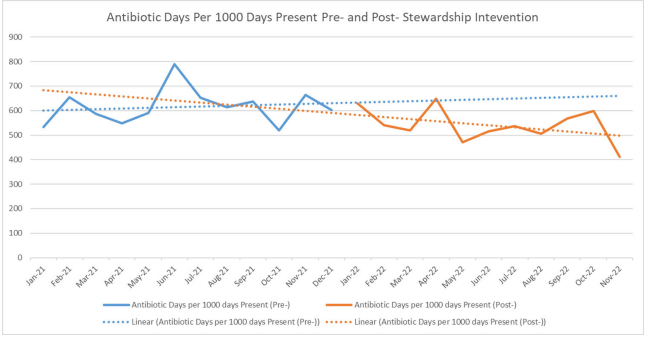
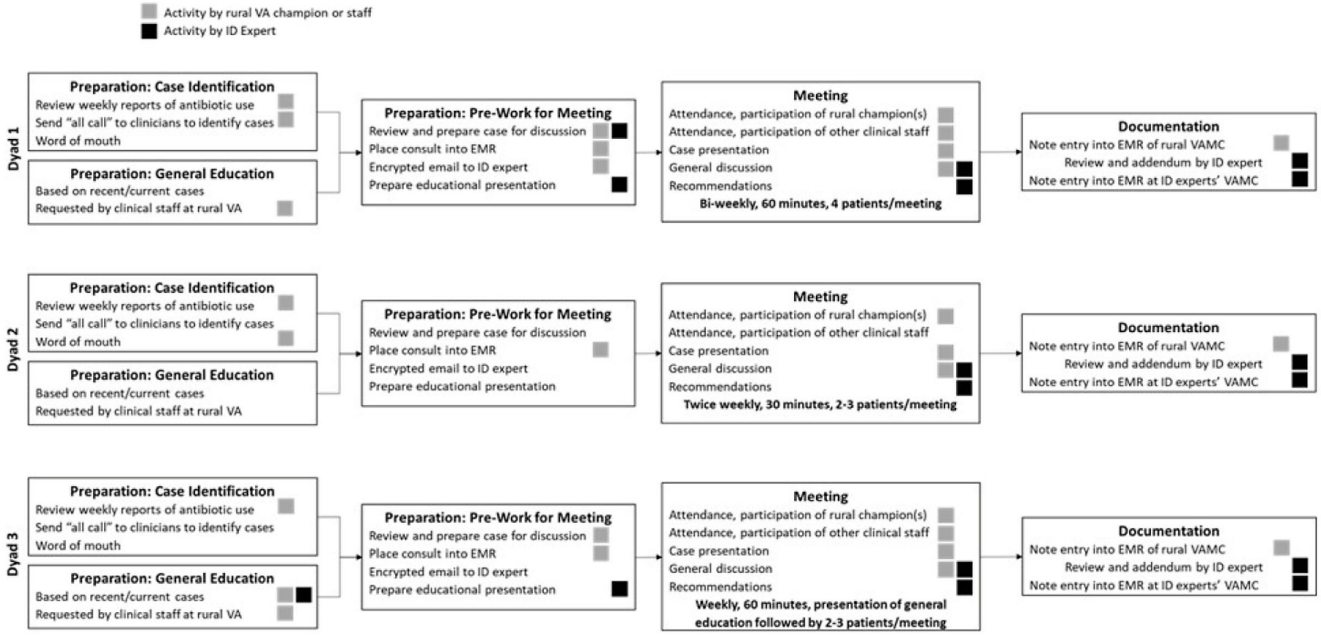


Figure 1: VAST Process Maps Dyads




(12%). Antibiotic usage trends (Fig. 1) on the ACCS floors, which were showing a nonsignificant increasing trend ($P = .70$) before and after the intervention, now show a nonsignificant decreasing trend ($P = .20$). **Conclusions:** There are numerous opportunities for antibiotic optimization on adult surgical floors. Although handshake stewardship is a labor-intensive intervention, preliminary findings after 1 year show that, on ACCS units, there may be a trend toward a sustained impact.
**Disclosures:** None

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**Presentation Type:**
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**Subject Category:** Antibiotic Stewardship
**Variations in implementation of antimicrobial stewardship via telehealth at select Veterans Affairs medical centers**
Geneva Wilson; Amanda Vivo; Daniel Livorsi; Rabeeya Sabzwari; Christopher Crnich; Robin Jump and Charlesnika Evans

**Background:** Antimicrobial stewardship programs (ASPs) seek to reduce the prevalence of antimicrobial-resistant and healthcare-associated infections. There are limited infectious disease (ID) physicians and pharmacists to support these ASPs, particularly in rural areas. The Veterans Health Administration has a robust telehealth program in place. Our previous work has demonstrated the feasibility of using telehealth modalities to support ASPs at rural Veterans Affairs medical centers (VAMCs) by pairing them with an ID expert from a larger, geographically distant, VAMC. This program, dubbed the Videoconference Antimicrobial Stewardship Team (VAST), emphasizes discussion of patients undergoing treatment for an active infection and additional relevant clinical topics with a multidisciplinary team at the rural VA. VAST implementation is ongoing at VAMCs. To understand and compare the qualitative differences in implementation, we used process maps to describe the VAST at 3 VAMC dyads. **Methods:** Team members from each dyad participated in interviews at 3, 6, and 9 months after beginning their VAST sessions. Questions addressed several aspects of VAST implementation and included identifying cases and topics to discuss; advance preparation for meetings; the frequency and general structure of VAST meetings; and documentation including workload capture. The research team used the responses to develop process maps to permit visual display and comparison of VAST implementation. **Results:** The first dyad began in January 2022 and the third in March 2022. The sessions had 3 phases: preparation, team meeting, and documentation of experts' recommendations. Tasks were shared between VAST champions at the rural VAMC and the ID experts (Fig. 1). The preparation phase showed the most variation among the 3 dyads. In general, champions at the rural VA identified cases and topics for discussion that were sent to the ID expert for review. The approaches used to find cases and the type of preparatory work by the ID expert differed. Team meetings differed in both frequency and participation by professionals from the rural site. Documentation of expert recommendations processes appeared similar among the dyads. **Discussion:** Each of the 3 dyads implemented VAST differently. These results suggest that the overall structure of the VAST is readily adaptable and that each site tailored VAST to suit the clinical needs, workflow, and culture of their partner facility. Future work will seek to determine which aspects in the preparation, team meeting, or documentation phases are associated with successful ASPs, including assessment of quantitative and qualitative outcomes.
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**Presentation Type:**
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**Subject Category:** Antibiotic Stewardship
**Predictors of antimicrobial use in intensive care unit patients**
Owen Albin; Jonathan Troost and Keith Kaye

**Background:** Identification of predictors of antibiotic use can inform targeted antimicrobial stewardship initiatives and can account for sources of bias in before-and-after interventional stewardship studies. To date, no study has identified clinical predictors of antimicrobial use within intensive care units (ICUs), where antimicrobial resistance is most prevalent and problematic. **Methods:** As part of an ongoing prospective, single-arm, pilot feasibility trial of an ICU diagnostic stewardship intervention, we performed a nested retrospective cohort study to explore associations between patient clinical variables and ICUs antimicrobial use and resistance rates (AURs). We included all patients hospitalized in 3 ICUs (surgical, medical, and cardiac) from 2017 to 2021 at Michigan Medicine, a large, tertiary-