

during the pandemic years. **Methods:** We analyzed data on VAE and PedVAE reported to NHSN between 2019 through the second quarter of 2022 (2022Q2) in ACHs. Annual proportions of VAC, IVAC, or PVAP were calculated; changes versus 2019 were assessed. The 10 most common PVAP pathogens reported annually were examined, and the percentages and ranks for each were calculated. Among pediatric and neonatal locations, PedVAE IDR were calculated as the number of events per 1,000 ventilator days and were compared between the pre-pandemic and pandemic years. All comparisons were conducted using a mid-P exact test, and  $P < 0.05$  was considered statistically significant. **Results:** Between 1,266 - 1,357 ACHs reported VAE data each year. A total of 24,836 (2019), 37,592 (2020), and 50,362 (2021) VAEs were reported. The proportion of VAC events in 2020 (64.1%) was significantly higher than in 2019 (62.9%), while the 2020 and 2021 PVAP proportions (8.7% and 9.2%, respectively) were significantly lower than in 2019 (10.0%). The majority of VAEs were reported from the same location types annually. The top 3 PVAP pathogens reported for each year remained unchanged: *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Klebsiella*. However, the proportion identified as *Haemophilus influenzae* decreased significantly each year from 2019-2021, with the rank dropping from #5 in 2019 (6.6%) to #10 in 2021 (2.3%). Between 199 - 257 ACHs conducted PedVAE surveillance. PedVAE IDR were significantly lower in 2020 (0.8), 2021 (1.1), and the first half of 2022 (0.8) when compared to 2019 (1.3). **Conclusions:** This study provides a national view of specific VAEs before and during the COVID-19 pandemic. Some changes in the associated pathogens, and the proportions of VAC and PVAP, were observed. This study is the first to produce national benchmarks for PedVAE IDR. Additional ACHs conducting PedVAE surveillance in NHSN would improve the representativeness of our results.

**Disclosures:** None

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#### Presentation Type:

Poster Presentation - Poster Presentation

**Subject Category:** Antimicrobial Stewardship

#### Antimicrobial Stewardship in a Psychiatric Hospital: Opportunities for Improvement

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**Background:** Western State Hospital (WSH) is an 800-bed, state-owned psychiatric hospital in Washington State which services individuals in 20 counties. WSH provides services and inpatient treatment to patients referred via behavioral health providers and/or the civil court system. Because many patients are admitted with serious, long-term illness, WSH also provides primary care and addresses infectious syndromes encountered in admitted patients. In January 2016, WSH officially began

their antimicrobial stewardship program (ASP). In 2017 WSH joined the UW Center for Stewardship in Medicine (UW-CSiM) to grow and optimize their ASP. **Methods:** The lead pharmacist at WSH participated in weekly hour-long education and tele-mentoring sessions through the UW-CSiM program. Educational materials were adapted from UW-CSiM didactics and delivered to providers during regular meetings and grand rounds. Daily pharmacist led prospective audit with feedback was conducted. Antibiotic use data were collected and measured by days of therapy (DOT) per 1000-patient days from pharmacy dispensing records from 2015 to 2022. **Results:** From 1/1/15 to 12/31/22, there was a consistent trend of decreasing antibiotic consumption annually. In particular, antibiotic use decreased by over 65% ranging from 35-43 DOT per 1000 patient-days in 2015 to 9-11 DOT per 1000 patient-days in 2022 (Figure 1). This translates to approximately 1000 antibiotic days of therapy in 2015 and 200 days of antibiotic therapy in 2022. As of 2022, the two most common antibiotics used were cephalexin and sulfamethoxazole/trimethoprim. **Conclusion:** Although treating infections is not a principal focus of a psychiatric hospital, patients receiving care in inpatient psychiatric facilities do experience common infections and receive antibiotics during their stay. At WSH, initiation of an antimicrobial stewardship program was associated with sustained decrease in total antibiotic DOT over 7 years. These data highlight the impact of tele-education and tele-mentoring in infectious diseases and antimicrobial stewardship as a path to build a successful antimicrobial stewardship even without formal infectious diseases training. Our single center experience at a large psychiatric hospital demonstrates the use of antimicrobials in these facilities and the opportunity for a large impact of an antimicrobial stewardship program in inpatient psychiatric facilities.

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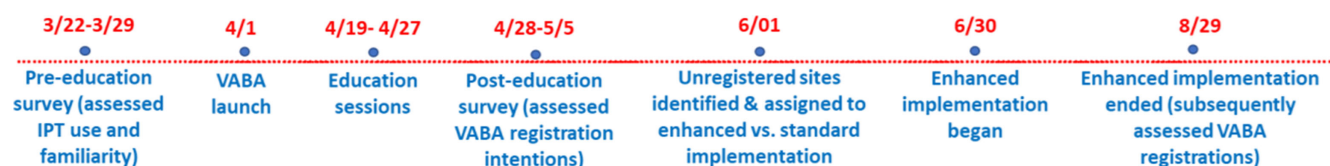
#### Increasing Registration for a VA Multidrug-Resistant Organism Alert Tool

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**Objectives:** To address the importation of multi-drug-resistant organisms (MDROs) when a colonized or infected patient is transferred from another VA facility, the Veterans Health Administration (VHA) launched the Inpatient Pathogen Tracker (IPT) in 2020. IPT tracks MDRO-infected/colonized patients and alerts MDRO Program Coordinators (MPCs) and Infection Preventionists (IPs) when such patients are admitted to their

Total Days of Treatment per 1,000 Bed Days





facility to facilitate rapid identification and isolation of infected/colonized patients. IPT usage has been low during initial rollout (32.5%). The VHA and the CARRIAGE QUERI Program developed targeted implementation strategies to increase utilization of IPT's second iteration, VA Bug Alert (VABA). **Methods:** Familiarity with IPT was assessed via pre-education survey (3/2022). All sites received standard VABA implementation including: 1) adaptation of VABA features based on end-user feedback (completed 4/2022), 2) development and delivery of an educational module regarding the revised tool (completed 4/2022), and 3) internal facilitation from the VHA MDRO Program Office (ongoing) (see Figure for all key timepoints). Intent to register for VABA was assessed via post-education survey (4-5/2022). Sites (125 eligible) not registered for VABA by 6/1/2022 were randomly assigned to receive one of two conditions from 6/2022–8/2022: continued standard implementation alone or enhanced implementation. Enhanced implementation added the following to standard implementation: 1) audit and feedback reports and 2) external facilitation, including interviews and education about VABA. We compared the number of sites with  $\geq 1$  MPC/IP registered for VABA to-date between implementation conditions. **Results:** *Pre-education survey.* 168 MPC/IPs across

117 sites responded (94% of eligible sites). Among respondents, 25% had used IPT, 35.1% were familiar with but had not used IPT, and 39.9% were unfamiliar with IPT. *Post-education survey.* 93 MPC/IPs across 80 sites responded (59% of eligible sites). Of these, 81.7% said they planned to register for VABA, 4.3% said they would not register, and 14.0% said they were unsure. *Post-6/1/2022 Registrations.* By 6/1/2022, 71% of sites had  $\geq 1$  registered VABA user. Of the 28 unregistered sites eligible for enhanced implementation, thirteen were assigned to receive enhanced implementation, and fifteen were assigned to receive continued standard implementation. Eight sites in the enhanced implementation condition (61.5%) registered for VABA. Seven standard-implementation-only sites (46.7%) registered. The number of registered sites did not significantly differ by implementation condition (Fisher's exact  $p=0.476$ ). **Conclusions:** Standard and enhanced implementation were equally effective at encouraging VABA registration, suggesting that allocating resources to enhanced implementation may not be necessary.

**Disclosures:** None.

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