Background. Candidemia is associated with significant morbidity and mortality. The impact of infectious diseases consultation (IDC) on clinical outcomes in patients with candidemia is not well established. We evaluated the impact of IDC and a management bundle on clinical outcomes in patients with candidemia.

Methods. A retrospective chart review of adult patients (age ≥ 18 years) with at least 1 blood culture growing Candida sp. between January 1, 2015, and December 31, 2020, was completed. The primary source of candidemia was identified in more than half the cases. The primary source was intra-abdominal in 12 (39%), central-line associated in 8 (26%), and urinary in 6 (19%). IDC occurred in 27 cases (87%), echocardiogram in 22 (71%), ophthalmology consult in 10 (32%), and follow-up blood cultures in 30 (97%). 20 (65%) patients received empiric echinocandin. Of the remainder who received empiric fluconazole, 4 (36%) grew non-albicans Candida species.

Conclusion. Patients with candidemia, lower in-hospital mortality was observed in patients who received IDC. Larger studies are required to confirm our findings and assess whether the implementation of a candidemia management bundle is beneficial.

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reports of inpatient antibiotic prescribing by hospitals attending on acute medical wards in VA medical facilities.

Methods. We created algorithms for determining the attending physician responsible for patient care during visits (DP), by considering changes of service (e.g., prior to admission from the emergency department) and transfers between services or physicians. Each antibiotic dose was assigned to a single attending, ward location, and service according to denominator assignment. Antibiotic use was grouped into Centers for Disease Control and Prevention drug categories and expressed as antibiotic days of therapy (DOT) per 1000 DP. Data were obtained from the VA Corporate Data Warehouse. Algorithms were iteratively refined based on reviews of medical records from three VA medical centers and applied to acute care patients at a single site for 2018-2020.

Results. In 2018-2020, 294 attendings oversaw acute inpatient care for >= 14 DP. Baseline differences with >= 300 DP overall 88.0% of all patient care and prescribed 87.6% of all antibiotics (480 DOT/1000 DP, IQR 375-559), 90.1% of broad-spectrum therapy for hospital-onset infections (55 DOT/1000 DP, IQR 31-72) and 88.3% of resistant Gram-positive therapy (70 DOT/1000 DP, IQR 39-89) in inpatient wards. The distribution of antibiotic use for acute care ward patients amongst these 129 staff is shown in the following figure.

Conclusion. We developed algorithms to attribute antibiotic therapy to inpatient attendings that can be broadly applied in facilities with electronic medical records. As with outpatient prescribing, we found large variation across inpatient attendings in overall antibiotic use and broad-spectrum antibiotic use. In future work, we will provide provider feedback on report usability and interpretability and assess whether distribution of these reports allows antibiotic stewards to favorably influence provider prescribing practices.

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13. INSPIRE-ASP Pneumonia Trial: A 59 Hospital Cluster Randomized Evaluation of Intervening Stewardship Prompts to Improve Real-time Empiric Antibiotic Selection versus Routine Antibiotic Selection Practices for Patients with Pneumonia

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Safety and Healthcare Epidemiology Prevention Research Development (SHEPheRD) Program

Session: O-03. Building Your Toolkit for HAI Surveillance and Stewardship

Background. Up to 40% of hospitalized patients receive unnecessary or inappropriate broad-spectrum antibiotics. There is a low risk of multidrug-resistant organism (MDRO) infection. Empiric standard spectrum antibiotic use would reduce extended-spectrum (ES) antibiotic exposure and future resistance. We evaluated whether computerized prescriber order entry prompts providing patient-specific MDRO risk estimates could reduce ES antibiotic use compared to routine stewardship practices in patients hospitalized with pneumonia.

Methods. This 59 hospital cluster-randomized trial compared: 1) INSPIRE prompting to provide patient-specific MDRO pneumonia risk estimates at order entry and recommended standard spectrum antibiotics for risk < 10% versus 2) routine stewardship practices. Prompt used an absolute MDRO risk algorithm based on a 140 hospital data set. Trial population included adults treated with antibiotics for pneumonia in ED or non-ICU wards in first 3 days of admission (empiric days); prompt was triggered if ES antibiotics were ordered. Prescribers received feedback on prompt response. Trial periodic 18-month Baseline (Apr 2017–Sept 2018); 6-month Phase-in (Oct 2018–Mar 2019); 15-month Intervention (Apr 2019 – June 2020). Primary outcome was ES antibiotic days of therapy (DOT) per 1000 DP (empiric days); secondary outcomes were a) vancomycin and b) anti-pseudomonal DOT per empiric day. Unadjusted, as-randomized analyses used generalized linear mixed effects models to assess differences in ES-DOT rates between the intervention vs baseline period across arms (stratified by patient in first 3 days of admission (empiric days)); post-hoc analyses are presented.

Results. We randomized 59 hospitals in 12 states, with 59,897 and 51,486 non-ICU pneumonia admissions in baseline and intervention periods, respectively. Intervention group had a 33% reduction in ES-DOT compared to routine care. Vancomycin and anti-pseudomonal DOT were similarly reduced in the intervention group by 27% and 33%, respectively (Table).