severely ill patients (AOR = 11.79%; 95%CI:1.5–30.6) and those who received antibiotics within 24 h before hospital admission (AOR = 1.69%; 95%CI:1.0–2.5).

| Antibiotic | SARS-CoV-2 + | p-Value | SARS-CoV-2 - | p-Value |
|------------|-------------|---------|-------------|---------|
| Ceftriaxone | 0.0% (95%CI:0–27.6) | 0.007 | 0.0% (95%CI:0–27.6) | 0.007 |
| Dexamethasone | 0.0% (95%CI:0–27.6) | 0.007 | 0.0% (95%CI:0–27.6) | 0.007 |

**Antimicrobials used on admission**

Antimicrobials used on admission among suspected COVID-19 patients and SARS-CoV-2 positive and negative patients 24 h before and on hospital admission at 12 selected hospitals in Bangladesh, March–August 2020.

**Disclosures.** All Authors: No reported disclosures

**153. Utilization of Post-Exposure Prophylaxis to Prevent Lyme Disease in a Large US Healthcare Database**

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Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

**Background.** In the United States, at least 50,000 emergency department visits for tick bite and an estimated 476,000 Lyme disease diagnoses occur annually, with incidence of both children and adults. The majority of these healthcare visits occur in the northeastern and midwestern states having high Lyme disease incidence and during the summer and fall months, corresponding to peak opportunities for exposure to blacklegged ticks. Post-exposure prophylaxis (PEP) with a single dose of doxycycline can effectively prevent Lyme disease after a tick bite that is high risk for transmission of Lyme disease. We describe characteristics of patients with dispensings of single-dose doxycycline in a large US-based system that includes patients enrolled in private and public health insurance plans.

**Methods.** Single-dose doxycycline (≥200 mg) dispensings during January 2020 to December 2020 were identified for patients enrolled in seven Data Partners that contributed electronic healthcare data to the Food and Drug Administration Sentinel Distributed Database, including large national insurers, an integrated delivery care network, a state Medicaid, and the 100% Medicare fee-for-service plan. We examined patient and PEP dispensing characteristics by patient age, state of residence, and month of dispensing.

**Results.** We identified 408,897 patients with PEP (n=474,414 total dispensings) with a mean age of 60 years at first dispensing. Overall, there were 21 patients per 10,000 eligible members with PEP dispensings. Dispensings were less common in children (<1 and 4 patients per 10,000 eligible members aged <8 and 8–18 years, respectively). Most dispensings (72%) occurred in states with high incidence of Lyme disease. Seasonality of dispensings was bimodal, with most occurring during April – July and October – November (71% – 83%, by year).

**Discussion.** Lyme disease PEP was relatively common and mirrored geographic and seasonal trends observed for ED visits for tick bites and Lyme disease diagnoses. However, we observed more PEP among older adults, and few dispensings among children. Despite healthcare visits for tick bites and Lyme disease occurring disproportionately among pediatric age groups, PEP appears to be underutilized in children.

**Disclosures.** All Authors: No reported disclosures

**154. Antibiotic Use During Three Separate Waves of the COVID-19 Pandemic at a Large Academic Medical Center in Detroit, MI**

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Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

**Background.** Inpatient antibiotic use early on in the COVID-19 pandemic may have increased due to the inability to distinguish between bacterial and COVID-19 pneumonia. The purpose of this study was to determine the impact of COVID-19 on antimicrobial usage during three separate waves of the COVID-19 pandemic.

**Methods.** We conducted a retrospective review of patients admitted to Detroit Medical Center between 3/10/19 to 4/24/21. Median days of therapy per 1000 adjusted patient days (DOT/1000 pt days) was evaluated for all administered antibiotics included in our pneumonia guidelines during 4 separate time periods: pre-COVID (3/3/19–4/27/19); 1st wave (3/8/20–5/2/20); 2nd wave (12/6/21–1/30/21); and 3rd wave (3/3/21–4/27/21). Antibiotics included in our pneumonia guidelines include: amoxicillin, azithromycin, aztreonam, ceftriaxone, cefepime, ciprofloxacin, doxycycline, linezolid, meropenem, piperacillin-tazobactam, tobramycin, and vancomycin. The percent change in antibiotic use between the separate time periods was also evaluated.

**Results.** An increase in antibiotics was seen during the 1st wave compared to the pre-COVID period (2639 [IQR 2339–3439] DOT/1000 pt days vs. 2432 [IQR 2291–2499]) DOT/1000 pt days, p=0.08). This corresponded to an increase of 8.5% in antibiotic use. Linezolid (+39%, p=0.013), cefepime (+47%, p=0.08) and tobramycin (+47%, p=0.05) use remained high during the 3rd wave compared to the pre-COVID period, but the use was lower when compared to the 1st and 2nd waves.
Antimicrobial Resistance Patterns as a Predictor of Standardized Antimicrobial Administration Ratio: A National Correlation Study

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Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

Background. Data on antimicrobial usage (AU) and antimicrobial resistance (AR) is submitted to the National Healthcare Safety Network (NHSN) from facilities monthly. Bacterial proportion resistant (%R) from the AR option reports proportion of isolates resistant to specific antimicrobial categories. Standardized Antimicrobial Administration Ratio (SAAR), generated under the AU option, compares observed to expected usage.

Methods. We conducted a multi-center, retrospective cohort analysis of all hospitalized patients from 241 US acute care facilities with ≥1 day inpatient admission between 7/1/19-5/15/21 in the BD Insights Research Database (Franklin Lakes, NJ USA). SARS-CoV-2 infection was defined as a positive PCR during or ≤5 days prior to hospitalization. Admissions with abs prescribable ≥24 hrs and a GN/ GP non-contaminant, positive culture were evaluated.

Results. During the pre-pandemic period (7/19 - 2/20) 30% (600,116/2,001,793) admissions were prescribed abs ≥ 24 hrs and 5.3% were positive for a GN/GP pathogen (Table 1). During the SARS-CoV-2 pandemic, abs use ≥ 24 hrs (66.2%) and positive GN/GP culture (8.4%) was highest in SARS-CoV-2 positive patients followed by patients negative for SARS-CoV-2 (abs ≥ 24 hrs 36.7%; GN/GP pathogen 6.8%), and SARS-CoV-2 not tested (abs ≥ 24 hrs 27.5%; GN/GP pathogens 4.5%). GN/GP positive culture was consistent by quarter during the pandemic for SARS-CoV-2 positive patients, whereas SARS-CoV-2 negative and not tested patients had the highest proportion of antibiotics received and positive pathogens in the first three months of pandemic. SARS-CoV-2 positive patients with positive GN/GP culture had the lowest median abs duration. (Table 1) The prevalence of abs use was highest in all groups for all abs during the early pandemic and then declined over time with the largest decline in SARS-CoV-2 positive patients in SARS-CoV-2 positive quarter.

Conclusion. This study highlights the impact of viral infections on both prescribing practices and prevalence of bacterial pathogens. Approximately two-thirds of SARS-CoV-2 positive patients received an antibiotic despite a low percentage of positive cultures, however aggregate antimicrobial use overall was similar prior to compared to during the SARS-CoV-2 pandemic. These data may inform opportunities for stewardship programs and antibiotic prescribing in the current and future viral pandemics.

Disclosures. Laura A. Puzniak, PhD, Merck & Co., Inc. (Employee) Karri A. Bauer, PharmD, Merck & Co., Inc. (Employee, Shareholder) Kalvin Yu, MD, BD (Employee) Vikas Gupta, PharmD, BCPS, Becton, Dickinson and Company (Employee, Shareholder)

157. A Multicenter, Mixed-Method Evaluation of Delayed Hospital Discharge in Patients with Invasive Candidiasis Receiving Echinocandins

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Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

Background. Patients with systemic candidiasis often receive prolonged echinocandin therapy in the inpatient or outpatient setting. Rezafungin is a novel echinocandin currently in clinical trials characterized by once-weekly dosing interval. In order to understand the potential benefits of rezafungin to facilitate earlier hospital discharge, the purpose of this project was to better understand barriers to discharge in patients with proven or suspected invasive candidiasis.

Methods. Electronic health records from two large health systems (20+ hospitals) during the SARS-CoV-2 pandemic: A Multicenter Evaluation

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Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

Background. Increased risk for bacterial co-infections has been described in the pathogenesis of primary viral infections. We evaluated trends in incidence of antibiotic use (abs) and culture positive Gram negative/gram positive (GN/GP) pathogens in US hospitalized patients prior to and quarterly during the SARS-CoV-2 pandemic.

Table. Trends in antimicrobial use and positive GN/GP pathogen results.

| Quarter | Antimicrobial Use | Positive Culture |
|---------|------------------|-----------------|
| Total | 25% | 5% |
| 7/19-2/20 | 30% | 5% |
| 3/21-8/21 | 36.7% | 6.8% |
| 9/21-2/22 | 27.5% | 4.5% |
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