for ATB administration was typically close to 20 minutes, and time to receive the therapeutic antibiotic were not associated with the patient’s death. By using the logistic model (Figure 2) to assign cases of predicted hospital death for probabilities ≥ 0.5 and controls for probabilities < 0.5, the prediction model had a sensitivity of 0.68 (0.59–0.76), a specificity of 0.58 (0.48–0.67), an area under the curve of the receiver operating characteristic curve of 0.75 (0.68–0.82). There was no significant difference between observed versus expected mortality by APACHE (Figure 3).

Figure 1. Univariate analysis to identify risk factors for hospital death.

![Figure 1](image1)

Figure 2. Logistic model for predicting hospital death.

![Figure 2](image2)

Figure 3. Observed X Expected/severity-adjusted mortality (APACHE).

![Figure 3](image3)

**Conclusion.** The logistic model developed uses only creatinine and lactate data to predict suspected sepsis patients with high death risk.

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

198. Evaluation of Oral Step-down versus Continued Intravenous Antimicrobial Therapy in Immunocompromised Patients Hospitalized with Gram-Negative Bacteremia

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**Session:** P-10. Bacteremia

**Background.** Bloodstream infections are associated with considerable morbidity and mortality in the United States. Most patients initially receive parenteral antibiotics for gram-negative bacteremia, and more data is emerging supporting de-escalation to oral (PO) antibiotics to complete treatment. Previous studies evaluating PO antibiotics for gram-negative bacteremia often exclude or have underrepresented immunocompromised patients. This study evaluated clinical failure in immunocompromised patients receiving intravenous (IV) antibiotics compared to patients transitioned to PO antibiotics for gram-negative bacteremia.

**Methods.** A single center, retrospective cohort study was conducted at 446-bed academic medical center. Patients were included if they were immunocompromised and admitted with a positive blood culture for E. coli, K. pneumoniae, Enterobacter spp., Serratia spp., Proteus spp., P. aeruginosa, between November 4, 2017 to November 4, 2020. Patients were excluded from this study if they had polymicrobial bacteremia, no source control within the first 5 days, or an indication for prolonged duration of treatment. The primary endpoint of this study was clinical failure defined as an escalation from PO to IV antibiotics, worsening clinical status, or readmission for the same infection within 30 days of discharge. The secondary endpoints included 30-day mortality, 90-day mortality, 30-day readmission, and time to microbiologic clearance.

**Results.** A total of 31 immunocompromised patients were included in the study with 26 patients receiving PO step-down therapy and 5 patients being continued on IV treatment for gram-negative bacteremia. There was no difference in the primary outcome of clinical failure between the PO step-down group versus the IV therapy group (15.4% vs 20%; p = 0.613). The most common immunocompromised state in both groups was being HIV positive. Patients in the PO step-down group had a significantly shorter hospital length of stay (7.4 days vs. 11 days; p = 0.016).

**Conclusion.** Oral step-down therapy for gram-negative bacteremia showed similar clinical failure rates to continuous IV therapy in the immunocompromised patient population and may be an option to shorten hospital length of stay.

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

199. Prospective Observational Cohort Of Transition to Oral Antibiotics in Persons Who Inject Drugs with Invasive Infections

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**Session:** P-10. Bacteremia

**Background.** Persons who inject drugs (PWID) are at increased risk of invasive bacterial infections. Increasing data supports the efficacy of transition to oral antibiotic therapy to complete treatment of invasive bacterial infections including osteomyelitis and endocarditis. The aim of this study is to evaluate the impact of transition to oral antibiotics on a prospective observational cohort of PWID.

**Methods.** We prospectively analyzed PWID admitted 2/2020 - 2/2021 at Barnes-Jewish Hospital in St. Louis with osteomyelitis, endocarditis, epidural abscesses or septic arthritis. All patients were offered multidisciplinary support during their inpatient hospitalization including addiction medicine consultation and medications for opioid use disorder, if appropriate. Health coaches and case managers met with patients during their hospitalization and followed patients for up to 90 days after discharge. Patients were offered the option of transition to oral antibiotics if they were not able to complete recommended IV antibiotics. Patients discharged on oral antibiotics were offered post-discharge infectious diseases follow-up. Antibiotic adherence was documented by health coaches through phone out-reach. We collected data on demographics, comorbidities, microbiologic data, antibiotic selection, mortality and readmission rates. We compared 90-day readmission rates between PWID who completed IV antibiotics inpatient and those who discharged early with oral antibiotics.

**Results.** Of 166 PWID, 61 completed IV antibiotics inpatient (37%) while 105 were discharged with oral antibiotics (63%). Causative pathogens were not significantly different between inpatient IV vs oral antibiotics; MSSA (34.4% vs 35.2%, p = 0.92), MRSA (34.4% vs 28.6%, p = 0.43), or streptococcal species (26.6% vs 24.8%, p = 0.85). Of patients discharged on oral antibiotics 7.6% had documented non-adherence to therapy, 23% had unknown adherence and 67% had documented adherence. There was no significant difference in all-cause 90-day readmission rates (p=0.819) (Figure 1).

**Conclusion.** Oral antibiotic regimens provided similar efficacy to IV antibiotics in our prospective cohort analysis of PWID.

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