XGBoost testing set performance in each disease class, visits with no labels, and macro average. The infectious disease classes with the highest score in each metric are shown in bold.

Table 2. Baseline comparison

|                | XGBoost | Logistic Regression |
|----------------|---------|---------------------|
| Precision      | 59.1    | 57.8                |
| Recall         | 46.3    | 41.6                |
| F1             | 50.2    | 46.3                |
| Macro Average  | 59.2    | 56.1                |

Macro average scores for XGBoost and baseline classifiers.

Conclusion. We trained a model to predict infectious disease diagnoses in the Emergency Department setting. Future work will further explore this technique and combine our supervised classifier with additional signs of medical error such as increased mortality or anomalous treatment patterns in order to study medical misdiagnosis.

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617. Long Acting Lipoglycopeptide Use in Veterans for Serious Gram-Positive Infections in the COVID Era

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Background. Dalbavancin and Oritavancin are semisynthetic lipoglycopeptides (LGP) that are FDA-approved for treatment of skin and soft tissue infections, but emerging data supports LGP use for other serious gram positive (GP) infections. We describe our experience with LGP during the COVID-19 pandemic.

Methods. We initiated a quality improvement project to assess the use of LGP for label and off-label indications at the Atlanta Veterans Affairs Health Care System. We define serious GP infections as infective endocarditis, osteomyelitis, joint infections, or bacteremia. Patients with serious GP infections that received LGP were selected at the treating physician’s discretion. We reviewed medical records of all patients receiving at least one dose of long-acting LGP from March 1, 2020 - May 31, 2021. We described patient demographics, clinical information, and outcomes (90-day readmission).

Results. Nineteen patients with GP infections received LGP (table). Overall, the most common infection was cellulitis (73%); 14 patients received LGPs for serious GP infections. All patients received at least one non-LGP antibiotic for at least 2 days, majority vancomycin (60%) and cefazolin (30%). Overall, the median hospital stay among patients who received LGP was 8.5 days (range: 2-45 days), for those with serious GP infections the median hospital stay was 15 days (range: 4-45). 90% of patients who received LGP were discharged home. Number of LGP doses ranged from 1 to 6 doses total, based on type of infection. Sixteen veterans (80%) followed up in outpatient clinic, following discharge within 2 weeks, two patients were discharged to home hospice due to complications of underlying malignancies and two patients were lost to follow up. No adverse drug events were reported, and none with serious GP infections required rehospitalization at 90 days.

Table 1. Demographics For the Year in COVID19 at ID Care

Table 2. Baseline comparison