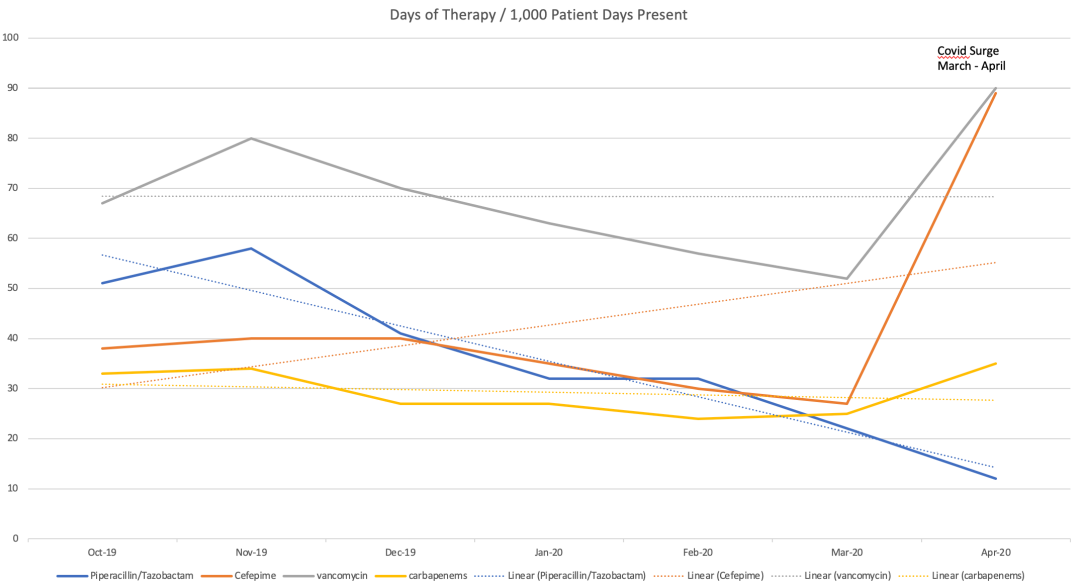
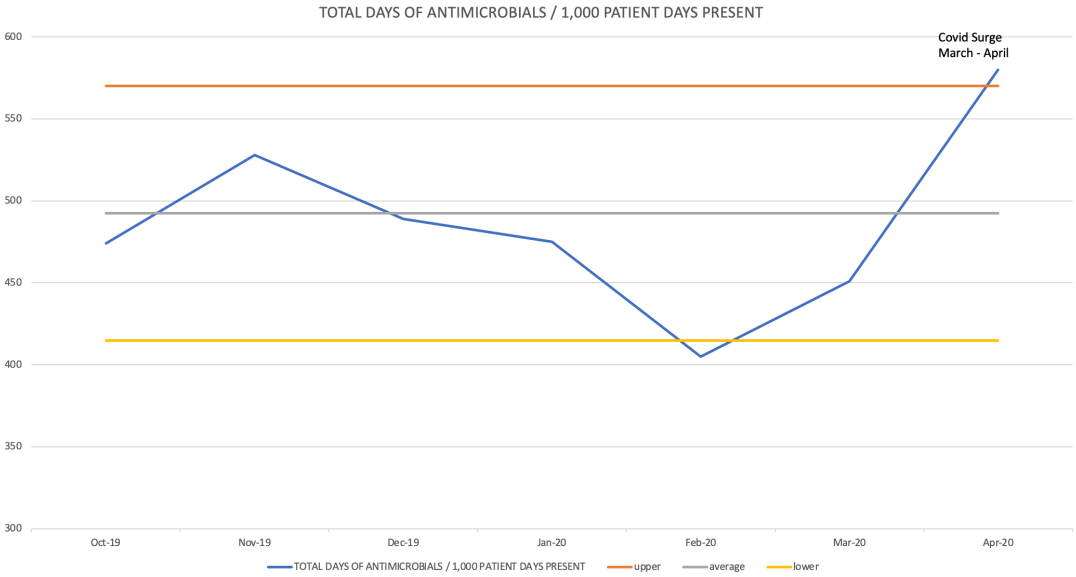


## 1 Background

The impact of COVID-19 on the health care system in New York City (NYC) cannot be overstated. The total number of patients with proven or suspected COVID-19 at Elmhurst Hospital peaked in early April 2020. A dramatic increase in the use of antimicrobials occurred in April and correlated with the increased number of intubated COVID-19 patients at our institution.

## 2 Methods

Antimicrobial Stewardship Committee activities and meetings had been suspended for the months of March and April due to the increased clinical demands associated with the COVID-19 pandemic. In May, a retrospective analysis of antimicrobial use for March and April of 2020 was performed.



## 3 Results

- 30% increase in the use of antimicrobials
- The average total days of antimicrobials per 1000 patient days (TDA/TPD) was 445 for January through March 2020
- In April 2020, the TDA/TPD was 580
- In April 2020, the TDA/TPD increased 58% for vancomycin, 40% for meropenem, and 187% for cefepime

Total Days of Antimicrobials per 1000 Patient days (TDA/TPD)

ANTIBIOTIC	JANUARY	FEBRUARY	MARCH	Q1 AVG	APRIL	PERCENT INCREASE
vancomycin	63	57	52	57	90	58
carbapenems	35	30	27	31	89	40
cefepime	35	30	27	31	89	187

## 4 Conclusions

It is likely that the frequent appearance of fever and leukocytosis in mechanically ventilated patients with COVID-19 prompted an increase in empiric antimicrobial use. The 48-hour time outs and prospective review of antimicrobial use may be necessary as we go forward in this pandemic.