#188 Tian Liang Advisor(s): Richard Sinert

Utilization of Pediatric Emergency Care in New York City During the Coronavirus Disease 2019 Pandemic

Background
New York City is home to the largest public healthcare system in the United States and was an early epicenter of Coronavirus Disease 2019 (COVID-19) infections. We evaluated the characteristics of pediatric emergency department (ED) visits in New York City public hospitals during the COVID-19 pandemic compared to previous years.
Methods
We conducted a retrospective cross-sectional analysis of patient visits <21 years to nine New York City public hospital EDs from January 2020 - November 2020. Patient volumes, demographics, visit types, emergency severity index (ESI) levels, and dispositions were collected and compared to the same time period in 2019. Group differences were compared using Mann-Whitney and Chi Square tests. New York City pandemic shutdown and reopening timelines were obtained.
Results
There were a total 94724 ED visits from January 2020 - November 2020, which represented a 44.1% decrease in volume compared to the 169459 ED visits from January 2019 - November 2019. The largest monthly decrease in volume for 2020 was 83.5% between March 2020 and April 2020 (11602 visits versus 1915 visits, respectively). This time period coincided with the first COVID-19 infection and initiation of lockdown orders in New York City. Total inpatient admission rates increased in 2020 (7.2%) during the height of the pandemic compared to the same period in 2019 (2.9%). Black (34.7%) and Hispanic (36.3%) patients combined represented the majority of ED visits. Though statistically significant, there were no clinically important differences in patient gender, age, mode of arrival, and ESI level between 2019 and 2020 in these hospitals.
Conclusions
The COVID-19 pandemic coincided with a sharp decrease in pediatric ED utilization in New York City public hospitals. This volume decrease was sustained despite city reopening measures. A higher proportion of pediatric patients seeking emergency care during the COVID-19 pandemic were hospitalized.