Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Conclusion: Modification of standard ROTEM channels using un-activated testing with heparinase addition demonstrates the expected reduced clotting times and increased clot firmness in COVID-19 associated hypercoagulability. Use of therapeutic and prophylactic anticoagulation was common in this population, and results of heparinase to ROTEM testing eliminates this confounding effect. Longitudinal assessment shows normalization of multiple hypercoagulable effects in COVID-19 disease around days 9-11 in this moderately ill cohort.

83 The Effect SARS-COV-19 Had on Disease Distribution in the Emergency Department at a Large Academic Center

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Study Objective: To assess the effect SARS-COV-19 had on the distribution of diseases in the emergency department (ED) of a large academic center located in a region with low SARS-COV-19 infection rates and deaths during the first peak of the pandemic.

Methods: This is a cross-sectional observational study that collected data from every ED visit from March through June, 2019 and compared it to the same period in 2020. The main ICD-10 code associated with each visit was organized into 1 of 530 disease categories. The top 20 disease categories for 2019 were compared to 2020 to identify and analyze changes in medical presentations and disease severity within the ED at a large academic center.

Results: A total of 4,717 adult patients with a positive SARS-CoV-2 test in the ED or inpatient setting were included in the primary analysis: 3,219 (68.2%) were admitted to an inpatient setting. Black patients were the largest group (29.1%), followed by Hispanic (29.0%), White (22.9%), Asian (5.8%) and patients of other race/ethnicity (19.0%). Black patients were overrepresented at the community site in Brooklyn, while Asian and Hispanic patients were overrepresented at the community site in Queens. Overall, White patients (24.3%) were disproportionately overrepresented among admitted patients. Hispanic patients had an overall significantly lower adjusted rate of inpatient admission compared to White patients (OR = 0.51, 95% CI 0.34 - 0.76). Black (OR = 0.60, 95% CI 0.43 - 0.84) and Asian patients (OR = 0.47; 95% CI 0.25 - 0.89) were overall less likely to be admitted to an ICU setting. There were lower odds of inpatient admission (OR = 0.68, 95% CI 0.46 - 0.99) at the community site located in Queens, where Asian and Hispanic patients were overrepresented. There was significantly higher mortality at the community-based sites in Brooklyn (OR = 4.38, 95% CI 2.66 - 7.24) and Queens (OR = 2.96, 95% CI 2.12 - 4.14), where Black, Asian, and Hispanic patients were overrepresented.

Conclusion: BIPOC patients accounted for a larger proportion of COVID patients seeking care in the ED compared to the demographic composition of NYC, but were less likely to be admitted to the ICU or hospitalized. Hospitals serving a high proportion of BIPOC patients had significantly higher mortality even within an integrated health system with shared resources. Limited capacity during the COVID-19 pandemic likely exacerbated preexisting health disparities among racial and ethnic minority groups.

84 Racial/Ethnic Disparities in Hospitalization And Clinical Outcomes Among COVID-19 Patients in an Integrated Health Care System In New York City

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Study Objectives: During the COVID-19 pandemic, Black, Indigenous, Hispanic and Asian (BIPOC) populations were nearly three times more likely to have died of COVID-19 than White patients. These disparate outcomes compound existing health disparities which result in BIPOC patients experiencing larger burdens of disease and decreased life expectancy. The objective of our study was to examine racial and ethnic disparities in hospitalization, medication usage, ICU admission and in-hospital mortality for COVID-19 patients within an integrated health care system in New York City (NYC).

Methods: In this retrospective cohort study, we analyzed adult patients with lab-confirmed COVID-19 diagnosis within a large urban health system in NYC between February 28, 2020 and August 28, 2020. Primary outcome was the rate of admission from the ED. Secondary outcomes were differences in medication administration, admission to an intensive care unit (ICU), and in-hospital mortality. We utilized multivariable logistic regression to test for differences by race/ethnicity in the odds of our primary and secondary outcomes accounting for hospital-level clustering.

Results: A total of 4,717 adult patients with a positive SARS-CoV-2 test in the ED or inpatient setting were included in the primary analysis: 3,219 (68.2%) were admitted to an inpatient setting. Black patients were the largest group (29.1%), followed by Hispanic (29.0%), White (22.9%), Asian (5.8%) and patients of other race/ethnicity (19.0%). Black patients were overrepresented at the community site in Brooklyn, while Asian and Hispanic patients were overrepresented at the community site in Queens. Overall, White patients (24.3%) were disproportionately overrepresented among admitted patients. Hispanic patients had an overall significantly lower adjusted rate of inpatient admission compared to White patients (OR = 0.51, 95% CI 0.34 - 0.76). Black (OR = 0.60, 95% CI 0.43 - 0.84) and Asian patients (OR = 0.47; 95% CI 0.25 - 0.89) were overall less likely to be admitted to an ICU setting. There were lower odds of inpatient admission (OR = 0.68, 95% CI 0.46 - 0.99) at the community site located in Queens, where Asian and Hispanic patients were overrepresented. There was significantly higher mortality at the community-based sites in Brooklyn (OR = 4.38, 95% CI 2.66 - 7.24) and Queens (OR = 2.96, 95% CI 2.12 - 4.14), where Black, Asian, and Hispanic patients were overrepresented.

Conclusion: BIPOC patients had significantly higher mortality even within an integrated health system with shared resources. Limited capacity during the COVID-19 pandemic likely exacerbated preexisting health disparities among racial and ethnic minority groups.

85 Impact of COVID-19 on Patient Populations in the Emergency Department in Flint, Michigan

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Study Objectives: As the COVID-19 pandemic continues, it is necessary to elucidate its impact on services in the emergency department (ED). The research project aims to identify and analyze changes in medical presentations and disease severity within the ED at Hurley Medical Center (HMC) in Flint, Michigan due to the COVID-19 pandemic.

Methods: The present study is a retrospective chart review on HMC COVID-19 patients within a large urban health system in NFC between February 1, 2019 to July 31, 2019 and from February 1, 2020 to July 31, 2020. Data from 2019 versus 2020 was analyzed using a combination of independent t-test, chi-square analysis, and regression modeling.

Results: There were a total of 59,345 visits analyzed within the study: 33,648 ED visits within the study were in 2019 compared to 25,697 visits in 2020. There was a significant difference in patient sex between 2019 and 2020 with a larger percentage of males presenting in 2020 vs 2019 (p < 0.001). Furthermore, the ICD-10 diagnosis differed between 2019 and 2020 with significant increase in the percentage of infectious disease, COVID-19, generalized symptoms, pneumonia, respiratory failure/insufficiency/asthma, patients with socioeconomic factors, mental health, nausea/
vomiting, patients with history or family history of chronic disease, disorders of lipid metabolism, and myocardial infarction presentations in 2020 compared to 2019. Dispositions also significantly differed in 2020 compared to 2019 with more patients receiving admission or dying in the ED (p<0.001). Patients who presented to the ED often presented with more severe illness in 2020 as reflected in increased length of stay in 2020 (p=0.01) and increased case-medical-index (p<0.001).

Conclusion: The COVID-19 pandemic significantly reduced the total number of ED visits to HMC in Flint, Michigan in 2020, when compared to the same time period in 2019. Notably, patients were more likely to have a longer length-of-stay, present with more severe illness, and more likely to be admitted or pass away in the ED when compared to the same time period in 2019. Analysis also revealed that visits for respiratory diagnoses and other life-threatening conditions like myocardial infarction increased, whereas less life-threatening/acute conditions like sprains, urinary tract infections, and sexually transmitted infections decreased. Interestingly as well, the pandemic drove statistically significant increased visits for mental health and socioeconomic factors. Limitations include analyzing 6 months of data as opposed to the whole calendar year and the use of broad ICD-10 code categories. It is also important to note that diagnosis codes were analyzed versus what the patient subjectively presented for, so there is a gray area between being able to elucidate what motivated the patient to come to the ED and versus what was analyzed in this project as patient’s ICD-10 diagnoses.

Table 1: Comparison of Emergency Department Values in 2019 vs 2020

| Year | # of ED Visits |
|------|----------------|
| 2019 | 33,648         |
| 2020 | 25,697         |
| Study Total | 59,345         |

Table 2: Comparison of Patient Demographics in 2019 vs 2020

| Year | 2019 (n=23646) | 2020 (n=5697) | P-value |
|------|----------------|---------------|---------|
| Sex  |                |               |         |
| Male | 14657          | 12067         | 0.001   |
| Female | 18781         | 13630         |         |
| Race |                |               |         |
| White | 15025          | 11559         | 0.071   |
| Black | 17175          | 12899         |         |
| Hispanic | 752           | 660          |         |
| American Indian & Alaskan Native | 114         | 90          |         |
| Native Hawaiian & Other Pacific Islander | 8          | 0.002        |         |
| Asian | 46             | 33            |         |
| Other | 363            | 298           |         |
| Unknown | 165           | 149          |         |

Table 3: Comparison of Severity Markers in 2019 vs 2020

| Length of Stay (Hours) | 2019 | 2020 | P-value |
|-----------------------|------|------|---------|
| 6.81                  | 6.97 |      | 0.01    |

| Case medical index (CMI) | 1.65 | 1.93 | <.001   |

Table 4: Comparison of Disposition in 2019 vs 2020

| Disposition | 2019 | 2020 | P-value |
|-------------|------|------|---------|
| Discharge   | 23140| 17721| 0.001   |
| Admit       | 7116 | 5870 | 22.8    |
| SNF         | 884  | 535  | 2.1     |
| Death       | 230  | 255  |         |

Table 5: Comparison of Diagnoses in 2019 vs 2020

| Diagnosis                          | 2019 Number (%) | 2020 Number (%) | P-value |
|------------------------------------|-----------------|-----------------|---------|
| Infectious Disease                 | 2662            | 2181            | <.001   |
| COVID-19                           | 0               | 462             | 1.8     |
| General Signs/Symptoms             | 1089            | 942             | <.01    |
| Pneumonia                          | 532             | 747             | 2.9     |
| Lower Respiratory Disease          | 137             | 115             | 0.454   |
| Respiratory Failure/Insufficiency/Arrest | 989     | 1035            | <.001   |
| Cardiac Arrest                     | 166             | 125             | 0.905   |
| Socioeconomic Factors              | 542             | 437             | <.05    |
| Mental Health                      | 1376            | 1161            | 4.5     |
| Abdominal                          | 4162            | 3210            | 12.5    |
| Musculoskeletal                    | 3036            | 2238            | 8.7     |
| Essential Hypertension             | 7733            | 19779           | 23      |
| Nausea or Vomiting                 | 2320            | 2107            | 8.2     |
| Upper Respiratory Infection        | 1322            | 1030            | 4.624   |
| Sprain                             | 789             | 452             | <.001   |
| Superficial Injury/Contusion       | 1893            | 1496            | 5.8     |
| Personal/Family History of Disease | 7691            | 6373            | 24.8    |
| Headache                           | 2021            | 1481            | 5.8     |
| Unspecified Injury                 | 567             | 378             | 1.5     |
| Nonspecific Chest Pain             | 2934            | 2266            | 8.8     |
| Tobacco-Related Disorders          | 13167           | 10258           | 39.9    |
| Urinary Tract Infection            | 1491            | 995             | 3.9     |
| Sexually Transmitted Infection     | 195             | 114             | 0.4     |
| Asthma                             | 1542            | 1158            | 4.5     |
| Disorders of Lipid Metabolism      | 1841            | 1660            | 6.5     |
| Skin/Subcutaneous infection        | 1146            | 836             | 3.3     |
| COPD or Bronchiectasis             | 2494            | 1823            | 7.1     |
| Myocardial Infarction              | 457             | 414             | 1.6     |
| Cerebral Infarction                | 175             | 153             | 0.6     |

66 Sexually Transmitted Infection Testing and Prevalence at a Large, Urban Hospital Before and After the SARS-CoV-19 Pandemic

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Study Objectives: To determine whether behavior changes made during the SARS-CoV-19 pandemic impacted the number of patients being tested and the positivity rate of sexually transmitted infections (STI) at a large, urban hospital in the Bronx to identify how to improve the sexual health services available to our patients.

Methods: A retrospective, cross-sectional study using data from the EMR at a public hospital in the Bronx, New York. Included patients were aged 13 and over that had STI testing from Aug. 1, 2019 to Feb. 1, 2020 (Period 1) and Aug. 1, 2020 to Feb. 1, 2021 (Period 2) in any hospital setting. Periods 1 and 2 are 6 month periods before and after the SARS-CoV-19 pandemic in NYC, respectively. Counts and percents were used to quantify STI tests (HPV point of care, HIV 4th generation serum, Gonorrhea Amplification, Chlamydia Amplification, and Treponema Pallidium Ab screen) and