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**"Demographic, epidemiological, and clinical factors of presumptive positive COVID-19 patients admitted from an urban emergency department"**

The first detected case of the novel coronavirus disease 2019 (COVID-19) in Louisiana was reported on March 9, 2020, and, within one month, cases were reported in all 64 parishes.[1] The Louisiana Department of Health indicated that 74.6% of the 586 deaths in Orleans parish were of Black individuals and 23.7% of White (reported 10/7/20).[1] Also, of the 5,402 deaths in Louisiana as of 10/7/20, 86.1% of these fatal cases occurred in patients at or above 60 years of age with a mean age of death of 75.[1] Despite these findings, it is still largely unknown what other patient characteristics are associated with COVID-19 outcomes in the Louisiana population.

Objectives of this project include: to identify the demographics, chief complaints, and underlying comorbidities among patients who tested positive for COVID-19 in the Emergency Department (ED) at University Medical Center New Orleans (UMCNO), to identify the measures used to treat these patients, and to identify which patients were admitted and which patients died. This study is a preliminary chart review of the first 160 patients who tested positive for COVID-19 at UMCNO-ED starting with their first case in March 2020. Electronic Medical Records (EMR) were queried for patient characteristics to include the following: age, gender, race, body mass index (BMI), insurance type, homeless status, chief complaint, and pre-existing health conditions. Variables for clinical care practices and hospital course include: service dates and duration of hospital stay; usage of oxygen therapy including mechanical ventilation; and utilization of antibiotic and antiviral treatment, proning, and convalescent plasma treatment. Collected data was stored in the HIPAA-approved online data storage tool, RedCap, and data analyses occurred in Microsoft Excel and SAS software.

Interim analysis shows that the most commonly affected demographics include Black individuals (89.38%), those with a BMI >35 (33.75%), and those aged 40-50 years old (26.71%). Common pre-existing health conditions of COVID-19(+) patients include obesity, hypertension, and diabetes, and common chief complaints include flu-like symptoms, cough, fever, and shortness of breath. Of the 160 charts reviewed, 55 patients (34.38%) were admitted, and 12 patients (7.5%) expired. Patients who expired at UMC had significantly longer hospital stays than those who recovered ($p=0.042$). Most admitted patients received oxygen therapy by nasal cannula (69.09%), and 14 patients were intubated. Further exploration is required to assess the relationships between these factors and their contributions to COVID-19(+) patient outcomes.

1. "Coronavirus (COVID-19): Department of Health: State of Louisiana." Coronavirus (COVID-19) | Department of Health | State of Louisiana, ldh.la.gov/Coronavirus/.