Race Was Not A Predictor Of Poor Outcomes From COVID-19 At University Of Chicago Medicine Hospital

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University of Chicago Medicine (UCM) is a large, 800 bed, urban hospital located on the south side of Chicago that cares for a substantial number of African-American (AA) patients. The COVID-19 pandemic has impacted health drastically, especially for minorities (including AAs) and those with comorbid conditions. We examined COVID outcomes in our UCM patient population, including patterns by race, other demographic information (age, sex), and comorbidities, and the relationship with deaths, intensive care unit (ICU), and mechanical ventilator use.

From the period March 2020 to February 2021, 61.6% (11,071/17,945) patients tested for COVID-19 at UCM were positive, and 52.8% (5,850/11,071) of these were hospitalized for further care. Of these hospitalized patients 3,171 were AA and 2,679 were all other races. AA had a higher percentage of patients who were female (62% vs 54%, p < 0.0001), were older (49 vs 43 years, p < 0.0001), had longer hospital stays (13.5 vs 13.0 days, p < 0.0001), were admitted to the ICU (9% vs 4%, p < 0.0001), and died (5% vs 2%, p < 0.0001) compared to non-AA patients. In addition, the rates of comorbid conditions were higher for AAs compared to non-AAs for hypertension (52% vs 32%, p < 0.0001), heart disease (15% vs 9%, p < 0.0001), diabetes (36% vs 22%, p < 0.0001), kidney disease (21% vs 8%, p < 0.0001), and obesity (53% vs 40%, p < 0.0001). To explore the relationship of race and death among patients hospitalized with COVID-19, a predictive model for death was estimated including age, race, gender, hospital stay in days, ICU length of stay, and indicators for obesity, heart disease, kidney disease, hypertension, and diabetes. The model shows that AA adults have a higher odds ratio (OR=1.08, p=0.71) for death than non-AA adults, however the p-value was insignificant. Instead, significant predictors of death included age (OR=1.058, p<0.0001) and kidney disease (OR=2.108, p=0.0002). Neither diabetes nor obesity were significant predictors of death in our cohort. Race was also not a predictor of poor COVID-19 outcomes, but kidney disease, obesity, and diabetes were – irrespective of race.

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