Study highlights how standardizing care leads to equitable COVID-19 outcomes in the ICU

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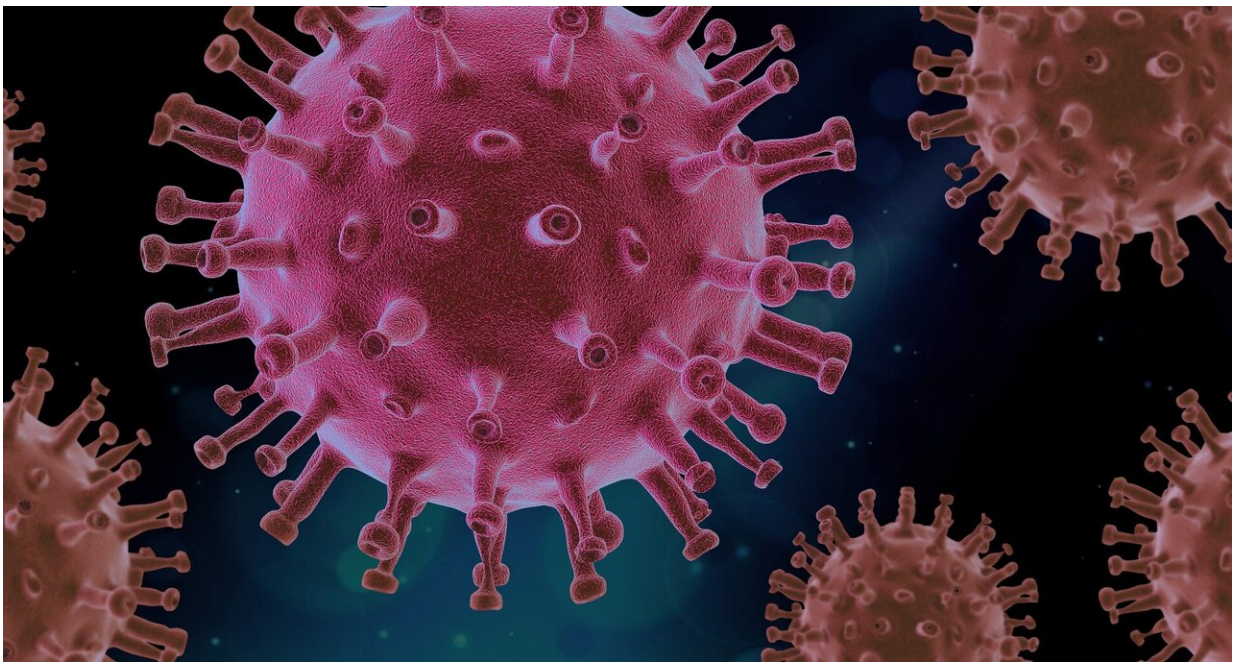

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A Cleveland Clinic study has shown there were no significant differences in rates of mortality or length of ICU stay between racial or ethnic groups hospitalized for COVID-19 at Cleveland Clinic facilities, during the first three waves of the pandemic. Findings from the study were published in the *Journal of Racial and Ethnic Disparities*.

Abhijit Duggal, M.D., vice-chair of the Department of Critical Care at Cleveland Clinic, led a multidisciplinary team of medical students, ICU physicians and an expert in health disparities, to investigate disparities among racial and ethnic minority groups hospitalized for COVID-19 at Cleveland Clinic hospitals.

For the study, Dr. Duggal and the research team used clinical data from Cleveland Clinic's COVID-19 ICU registry, and reviewed detailed information from 2,215 patients admitted to a Cleveland Clinic ICU in Northeast Ohio between March and December 2020. Of the study cohort, 60% were White, 33% were Black and 4.3% were Hispanic patients.

Analysis of the data revealed:

- Mortality was comparable between Black and White patients (30.5% vs. 37.5%).
- The average length of stay in the ICU was similar between Black (3.4 days), Hispanic (3.9 days) and White patients (4.4 days).
- A similar percentage of Black and White patients being treated for COVID-19 required ventilation during their ICU stay (41.9% vs. 42.7%).
- There were no major differences in utilization of COVID-19 pharmacological interventions, such as dexamethasone, remdesivir, hydroxychloroquine, and tocilizumab.

Despite the similarity in outcomes of patients critically ill with COVID-19, Dr. Duggal, says its findings sheds light on long-standing health disparities that exist in communities of color, which could lead to a higher prevalence of severe COVID-19 cases in these communities.

"Nationally, Black and Hispanic patients are at a higher risk of COVID-19 infection and death from the virus because of inequalities in

chronic disease prevention and management," said Dr. Duggal. "In our study, Black patients had a higher prevalence of asthma, diabetes, chronic kidney disease and hypertension, while Hispanic patients had a greater incidence of liver disease. These conditions are risk factors for more severe cases of COVID-19. However, by standardizing COVID-19 care, we were able to mitigate disparities and improve outcomes."

According to recent data from the U.S. Centers for Disease Control and Prevention, Black patients make up approximately 12.5% of COVID-19 cases, and account for over 13.7% of COVID-19 deaths. While Hispanics make up over 24.4% of COVID-19 cases, and represent 16.7% of COVID-19 deaths, . All despite Black/African Americans and Hispanics comprising roughly 13.6% and 18.5% of the U.S. population, respectively.

Early in the pandemic, Cleveland Clinic implemented several strategies to care for patients with COVID-19:

- Having the ability to care for critically ill, COVID-19 patients in six medical intensive care units on its main campus plus 16 more at its regional hospitals.
- Using an ICU operations team with representatives from every ICU to improve communication, standardize best practices and share resources.
- Offering COVID-19 educational training modules for all ICU providers.
- Collaborating of multidisciplinary teams, including critical care, infectious disease, nephrology and palliative care.

"Our proactive, system-wide strategies were helpful in improving outcomes in the ICU" said Dr. Duggal. "Ultimately, if we can better manage health disparities on the front end, we can make a bigger impact on outcomes."

More information: Diana Cristina Lopez et al, Critical Care Among Disadvantaged Minority Groups Made Equitable: Trends Throughout the COVID-19 Pandemic, *Journal of Racial and Ethnic Health Disparities* (2022). DOI: 10.1007/s40615-022-01254-1