

Older age, chronic co-morbidities associated with more severe COVID disease in children

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Over the course of the pandemic, researchers nationwide noticed differences in COVID-19 disease between children and adults.

While [risk factors](#) for hospitalization and poor outcomes are well documented in adults, less is known about the clinical factors associated with COVID disease severity in children.

In an effort to aid [mitigation strategies](#) for children who are at high risk of developing severe COVID disease, a group of physicians at Monroe Carell Jr. Children's Hospital at Vanderbilt studied data from 45 children's hospitals around the country—20,000 patients were included.

"This is one of the largest multicenter studies of children with COVID-19 in the United States," said James Antoon, MD, Ph.D., FAAP, assistant professor of Pediatrics at Children's Hospital and lead author of the study.

"And given the recent, concerning increases in COVID cases nationwide and the fact that the vast majority of children remain unvaccinated and susceptible, these findings should be taken into account when considering preventive strategies in schools and planning vaccinations when available for children less than 12 years of age," he said.

The study, "Factors Associated with COVID-19 Disease Severity in U.S. Children," published in the *Journal of Hospital Medicine*, determined the factors associated with severe disease and poor health outcomes among children presenting to the hospital with COVID. These included older age and chronic co-morbidities such as obesity, diabetes and neurologic conditions, among others.

"These factors help identify [vulnerable children](#) who are most likely to require hospitalization or develop severe COVID-19 disease," said Antoon. "Our findings also highlight children who should be prioritized for COVID-19 vaccines when approved by the FDA."

The [retrospective cohort study](#) noted that approximately 1 out of every 4 children admitted to the [hospital](#) with COVID developed severe disease and required ICU care during April and September, 2020.

"Across the country there is a raging debate on how best to protect

children and schools from COVID-19," said Antoon. "Some children are at increased risk for more severe [disease](#) and many of them are not yet eligible for vaccination against COVID.

"With schools opening and some already in session, these children need to be protected by vaccinating as many people as possible while also using practical strategies to limit spread, such as masking, distancing and ventilation."

Study investigators hope that the findings will buoy mitigation efforts that proved most beneficial for [children](#) and adolescents during the pandemic, including remote learning, social distancing, hand-washing and mask-wearing both for students and teachers.

More information: James W Antoon et al, Factors Associated With COVID-19 Disease Severity in US Children and Adolescents, *J Hosp Med.* (2021). [DOI: 10.12788/jhm.3689](https://doi.org/10.12788/jhm.3689)

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