

Researchers differentiate MIS-C from severe COVID-19 in children

9 March 2021



(HealthDay)—Patterns of clinical presentation and organ involvement may distinguish between children with multisystem inflammatory syndrome in children (MIS-C) and severe acute COVID-19, according to a study published online Feb. 24 in the *Journal of the American Medical Association*.

Leora R. Feldstein, Ph.D., from the U.S. Centers for Disease Control and Prevention in Atlanta, and colleagues compared clinical characteristics and outcomes of [children](#) and adolescents with MIS-C versus those with severe COVID-19. The analysis included a case series of 1,116 [patients](#) aged younger than 21 years hospitalized between March 15 and Oct. 31, 2020 (with follow-up through Jan. 5, 2021) at 66 U.S. hospitals in 31 states.

The researchers found that 48 percent of patients were diagnosed with MIS-C and 52 percent were diagnosed with COVID-19. Compared with patients with COVID-19, patients with MIS-C were more likely to be 6 to 12 years old (40.8 versus 19.4 percent; adjusted risk ratios [aRR], 1.51 versus 0

to 5 years) and non-Hispanic Black (32.3 versus 21.5 percent; aRR, 1.43 versus White). Additionally, patients with MIS-C were more likely than patients with COVID-19 to have cardiorespiratory involvement (aRR, 2.99), cardiovascular involvement without respiratory involvement (aRR, 2.49), and mucocutaneous involvement without cardiorespiratory involvement (aRR, 2.29). A higher neutrophil-to-lymphocyte ratio, higher C-reactive protein level, and lower platelet count were seen among patients with MIS-C. Among patients with MIS-C who had reduced left ventricular systolic function (34.2 percent) and coronary artery aneurysm (13.4 percent), these conditions normalized within 30 days in an estimated 91.0 and 79.1 percent, respectively.

"MIS-C was distinguished by certain demographic features and clinical presentations, including being aged 6 to 12 years, being of non-Hispanic Black race, having severe cardiovascular or mucocutaneous involvement, and having more extreme inflammation," the authors write.

Several authors disclosed financial ties to the pharmaceutical industry.

More information: [Abstract/Full Text](#)

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APA citation: Researchers differentiate MIS-C from severe COVID-19 in children (2021, March 9)
retrieved 6 October 2022 from <https://medicalxpress.com/news/2021-03-differentiate-mis-c-severe-covid-children.html>

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