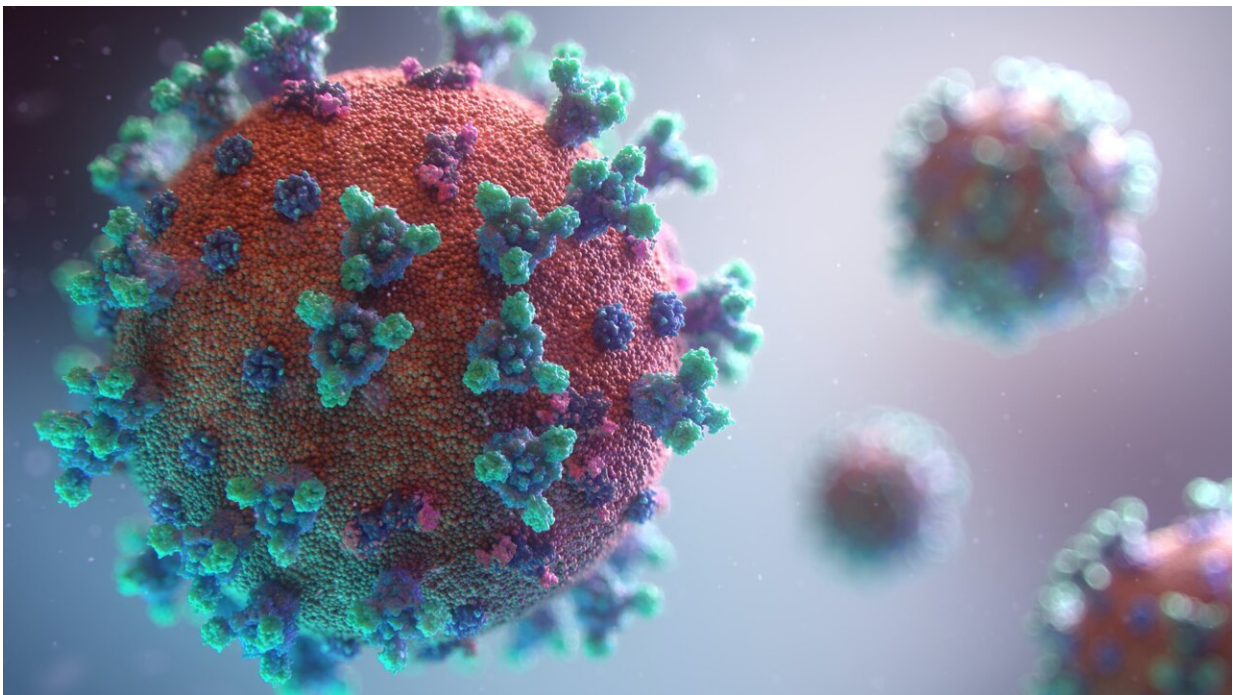


Children older than 5 at higher risk of COVID-19-related multisystem inflammatory syndrome

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A new study found that older children and those with high blood markers for inflammation (ferritin) were at highest risk of severe multisystem inflammatory syndrome in children (MIS-C) and admission to the intensive care unit (ICU). The research is published in *CMAJ* (*Canadian*

Medical Association Journal).

The international study included 232 children younger than 18 admitted to 1 of 15 centres—13 in Canada, 1 in Costa Rica and 1 in Iran—for suspected MIS-C between March 1, 2020, and March 7, 2021. The patients met the World Health Organization's definition for MIS-C, which includes fever persisting for at least 3 days; elevated C-reactive protein, which indicates inflammation; illness involving 2 or more systems with no obvious microbial cause of inflammation; and positivity for COVID-19 or suspected contact with a positive case.

Most patients (89%) had gastrointestinal symptoms such as pain and dermatological problems like rashes and swelling (85%). Cardiac involvement was common (59%), as were abnormalities in blood coagulation (90%). Of the 232 children, 73 (31.5%) were admitted to ICU, and 47 (64%) of them needed treatment for very [low blood pressure](#).

The risk of admission to the ICU was higher in children aged 6–12 years (44%) and 13–17 years (46%) than in children aged 0–5 years (18%). As well, children admitted to hospital later in the pandemic (between November 2020 and March 2021) were more likely to be admitted to the ICU (50 of 112, 45%) than those hospitalized earlier (23 of 120, 19%).

The authors note challenges in diagnosing MIS-C.

"Multisystem inflammatory syndrome in children is a new diagnosis, with differing [diagnostic criteria](#) that have not been validated," writes Dr. Joan Robinson, a pediatrician at the University of Alberta, Edmonton, Alberta, with coauthors.

"Most of these children lacked a history of contact with a person with proven SARS-CoV-2 infection. Identifying exposure can be difficult as

infected contacts may be asymptomatic or may never have been tested."

The authors call for international consensus on MIS-C diagnostic criteria to enhance clinical care and research.

More information: Predictors of severe illness in children with multisystem inflammatory syndrome after SARS-CoV-2 infection: a multicentre cohort study, *Canadian Medical Association Journal* (2022). [DOI: 10.1503/cmaj.21087](https://doi.org/10.1503/cmaj.21087)

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