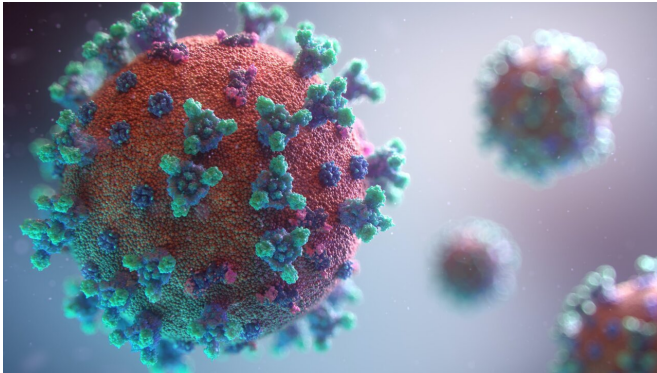


Children older than 5 at higher risk of COVID-19-related multisystem inflammatory syndrome

11 April 2022



Credit: Unsplash/CC0 Public Domain

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)

Provided by Canadian Medical Association

Journal

APA citation: Children older than 5 at higher risk of COVID-19-related multisystem inflammatory syndrome (2022, April 11) retrieved 26 May 2022 from <https://medicalxpress.com/news/2022-04-children-older-higher-covid-related-multisystem.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.