



COVID-19: What's New?

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Looking for Clues: Children and COVID-19

Jean Ivey

Editor's Note: Evidence-based practice is a challenge during the COVID-19 pandemic as science struggles to learn about the SARS-CoV-2 virus. To assist readers in identifying the latest findings, the *COVID-19: What's New?* column reviews and critiques two articles to share pertinent findings with practice implications.

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Key Words: COVID-19, pandemic, SARS-CoV-2, multisystem inflammatory syndrome in children (MIS-C), Kawasaki disease.

Most want more information about the COVID-19 virus. However, because it is such a recent problem, very little research has been published. One can find many opinions by experts, but data are slim. In this issue two articles are featured: 1) a review of articles available on COVID-19 in children, and 2) research on systemic inflammation and antibody response in multisystem inflammatory syndrome in children (MIS-C).

Mapping Systemic Inflammation and Antibody Responses in Multisystem Inflammatory Syndrome in Children (MIS-C)

(Gruber et al., 2020)

Systematic Review of COVID-19 in Children Shows Milder Cases and a Better Prognosis than Adults

(Ludvigsson, 2020)

Ludvigsson (2020) found 45 scientific papers and letters as of March 2020. A keynote in the introduction was that yes, data on how COVID-19 affects children are rare. Chinese researchers (Guan et al., 2020; Zhu et al., 2020) reported that about 2% of 44,672 cases were children. They also reported that children were usually part of family cases and that children's symptoms were generally less serious than adults. Different countries had different percentages of pediatric cases, and the prevalence of severe and critical disease was from 10% birth to 1 year to 3% in 16- to 17-year-olds, with the highest percentage in the preschool (1 to 5 years old) period. The article goes into prognosis and symptoms, chest tomography, and diagnosis and treatment information found. This is not the type of systematic review usually found in nursing research publications, but it gave a good survey of knowledge in early spring 2020.

Gruber and colleagues (2020) examined the cellular and immune dysfunction in MIS-C. The introduction identified cases of hyperinflammatory shock in children with COVID-19 initially thought to be Kawasaki disease (KD) as the cause of this research. KD usually does not include shock, gastrointestinal symptoms, and coagulopathy that are unique to MIS-C. Their article focuses on the immune response of nine MIS-C cases in New York City between April and June 2020. The authors present the clinical history followed by the children's antibody response, which resembled the usual convalescent response. However, the children's IgG and IgA continued to be higher than IgM weeks after discharge. The article may be heavy reading for those unfamiliar with immune system terminology and cell biology, but it is well illustrated and explains the pathology seen in MIS-C in the nine cases.

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The **COVID-19: What's New** column focuses on issues, information, and strategies relevant to the current COVID-19 global pandemic and pediatric patients. To suggest topics, obtain author guidelines, or to submit queries or manuscripts, contact Bernice D. Mowery, PhD, RN, or Jean Ivey, PhD, CRNP, PNP-BC, FAANP, *Pediatric Nursing*; East Holly Avenue/Box 56; Pitman, NJ 08071-0056; (856) 256-2300 or FAX (856) 589-7463; pnjrnl@ajj.com

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