



# Health Alert Network

## Tri-County Health Department

Serving Adams, Arapahoe and Douglas Counties

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John M. Douglas, Jr., M.D. Executive Director

The pages that follow contain information critical to protecting the health of your patients and the citizens of Colorado.

## HAN ADVISORY

Number of pages including cover: 4

Subject: **Advisory – Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with Coronavirus Disease 2019 (COVID-19)**

Message ID: 5/15/2020 6:00 PM

Recipients: HAN Community Members.

From: TRI-COUNTY HEALTH DEPARTMENT

Adams, Arapahoe and Douglas County, Colorado

Recipient Instructions: **Tri-County Health Department is forwarding you the attached HAN. You may have already received this broadcast if you are on the CDPHE distribution list, however, we wanted to ensure you did not miss this important information.**

### For more information:

- TCHD COVID-19 web page: <http://www.tchd.org/818/Coronavirus-COVID-19>
- CDPHE COVID-19 web page: <https://covid19.colorado.gov/>
- CDC COVID-19 web page: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>
- Medical resource requests/questions may be submitted to [Logistics@tchd.org](mailto:Logistics@tchd.org). TCHD Logistics will provide the ordering resource document (213RR) and direct partners to the corresponding County or City OEM Logistics personnel to place your orders into the State ordering system, Web EOC.
- For questions about COVID-19 please call Tri-County Health Department at 303-220-9200 or [callcenter@tchd.org](mailto:callcenter@tchd.org)
- Members of the public may contact CO Help at 303-389-1687 or 1-877-462-2911 with general questions about COVID-19 to receive answers in many languages including English, Spanish (Español), Mandarin (普通话), and more, or email [COHELP@RMPDC.org](mailto:COHELP@RMPDC.org) (for answers in English only).

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### Categories of Health Alert Network Messages:

**Health Alert:** Conveys the highest level of importance; warrants immediate action or attention.

**Health Advisory:** Provides important information for a specific incident or situation; may not require immediate action.

**Health Update:** Provides updated information regarding an incident or situation; unlikely to require immediate action.

**Info Service/Public Health Brief:** Provides general information that is not necessarily considered to be of an emergent nature.

You may download a copy of this HAN from the TCHD website at  
<http://www.tchd.org/259/Health-Alert-Network>

**This is an official**  
**CDC HEALTH ADVISORY**

Distributed via the CDC Health Alert Network  
May 14, 2020, 4:45 PM ET  
CDCHAN-00432

**Multisystem Inflammatory Syndrome in Children (MIS-C) Associated  
with Coronavirus Disease 2019 (COVID-19)**

**Summary**

The Centers for Disease Control and Prevention (CDC) is providing 1) background information on several cases of a recently reported multisystem inflammatory syndrome in children (MIS-C) associated with coronavirus disease 2019 (COVID-19); and 2) a case definition for this syndrome. CDC recommends healthcare providers report any patient who meets the case definition to local, state, and territorial health departments to enhance knowledge of risk factors, pathogenesis, clinical course, and treatment of this syndrome.

**Background**

On April 26, 2020, clinicians in the United Kingdom (UK) recognized increased reports of previously healthy children presenting with a severe inflammatory syndrome with Kawasaki disease-like features.<sup>1</sup> The cases occurred in children testing positive for current or recent infection by SARS-CoV-2, the novel coronavirus that causes COVID-19, based on reverse-transcriptase polymerase chain reaction (RT-PCR) or serologic assay, or who had an epidemiologic link to a COVID-19 case. Patients presented with a persistent fever and a constellation of symptoms including hypotension, multiorgan (e.g., cardiac, gastrointestinal, renal, hematologic, dermatologic and neurologic) involvement, and elevated inflammatory markers.<sup>2</sup> Respiratory symptoms were not present in all cases.

Eight cases, including one death, from the UK were described in a recent publication.<sup>3</sup> In the limited sample of 8 children, it was reported that 75% of the patients were of Afro-Caribbean descent and 62.5% were male. The report also indicated that all 8 patients tested positive for SARS-CoV-2 through antibody testing, including the patient that died.<sup>3</sup>

During March and April, cases of COVID-19 rapidly increased in New York City and New York State. In early May 2020, the New York City Department of Health and Mental Hygiene received reports of children with multisystem inflammatory syndrome. From April 16 through May 4, 2020, 15 patients aged 2-15 years were hospitalized, many requiring admission to the intensive care unit. As of May 12, 2020, the New York State Department of Health identified 102 patients (including patients from New York City) with similar presentations, many of whom tested positive for SARS-CoV-2 infection by RT-PCR or serologic assay. New York State and New York City continue to receive additional reports of suspected cases.

Additional reports of children presenting with severe inflammatory syndrome with a laboratory-confirmed case of COVID-19 or an epidemiological link to a COVID-19 case have been reported by authorities in other countries.<sup>4</sup>

It is currently unknown if multisystem inflammatory syndrome is specific to children or if it also occurs in adults.

There is limited information currently available about risk factors, pathogenesis, clinical course, and treatment for MIS-C. CDC is requesting healthcare providers report suspected cases to public health authorities to better characterize this newly recognized condition in the pediatric population.

## Recommendations

Healthcare providers who have cared or are caring for patients younger than 21 years of age meeting MIS-C criteria should report suspected cases to their local, state, or territorial health department.

For additional information, please contact CDC's 24-hour Emergency Operations Center at 770-488-7100. After hour phone numbers for health departments are available at the Council of State and Territorial Epidemiologist website (<https://resources.cste.org/epiafterhours>).

### Case Definition for Multisystem Inflammatory Syndrome in Children (MIS-C)

- An individual aged <21 years presenting with fever<sup>i</sup>, laboratory evidence of inflammation<sup>ii</sup>, and evidence of clinically severe illness requiring hospitalization, with multisystem ( $\geq 2$ ) organ involvement (cardiac, renal, respiratory, hematologic, gastrointestinal, dermatologic or neurological); **AND**
- No alternative plausible diagnoses; **AND**
- Positive for current or recent SARS-CoV-2 infection by RT-PCR, serology, or antigen test; or COVID-19 exposure within the 4 weeks prior to the onset of symptoms

<sup>i</sup>Fever  $\geq 38.0^{\circ}\text{C}$  for  $\geq 24$  hours, or report of subjective fever lasting  $\geq 24$  hours

<sup>ii</sup>Including, but not limited to, one or more of the following: an elevated C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), fibrinogen, procalcitonin, d-dimer, ferritin, lactic acid dehydrogenase (LDH), or interleukin 6 (IL-6), elevated neutrophils, reduced lymphocytes and low albumin

#### Additional comments

- Some individuals may fulfill full or partial criteria for Kawasaki disease but should be reported if they meet the case definition for MIS-C
- Consider MIS-C in any pediatric death with evidence of SARS-CoV-2 infection

## References

<sup>1</sup> <https://www.cdc.gov/kawasaki/index.html>

<sup>2</sup>Royal College of Paediatrics and Child Health Guidance: Paediatric multisystem inflammatory syndrome temporally associated with COVID-19, <https://www.rcpch.ac.uk/sites/default/files/2020-05/COVID-19-Paediatric-multisystem-%20inflammatory%20syndrome-20200501.pdf>.

<sup>3</sup>Riphagen S, Gomez X, Gonzales-Martinez C, Wilkinson N, Theocharis P. Hyperinflammatory shock in children during COVID-19 pandemic. Lancet. 2020. Advance online publication, doi: 10.1016/S0140-6736(20)31094 [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31094-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31094-1/fulltext)

<sup>4</sup>Verdoni L, Mazza A, Gervasoni A, Martelli L, Ruggeri M, Ciuffreda M, Bonanomi E, D'Anitga L. An outbreak of severe Kawasaki-like disease at the Italian epicentre of the SARS-CoV-2 epidemic: an observational cohort study. Lancet. 2020. Advance online publication, doi: 10.1016/S0140-6736(20)31129-6 [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31103-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31103-X/fulltext)

*The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.*

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Categories of Health Alert Network messages:

**Health Alert** Requires immediate action or attention; highest level of importance  
**Health Advisory** May not require immediate action; provides important information for a specific incident or situation  
**Health Update** Unlikely to require immediate action; provides updated information regarding an incident or situation  
**HAN Info Service** Does not require immediate action; provides general public health information

##This message was distributed to state and local health officers, state and local epidemiologists, state and local laboratory directors, public information officers, HAN coordinators, and clinician organizations##