



Health Update: Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with COVID-19 in Georgia

ACTION STEPS:

District and County Health Departments: *Please forward to hospitals and clinics in your jurisdiction.*

Hospitals and clinics: *Please distribute to infectious disease physicians, infection preventionists, emergency department physicians, intensive care physicians, cardiologists, primary care providers, and pediatricians.*

SUMMARY

The Council of State and Territorial Epidemiologists (CSTE) and the Centers for Disease Control and Prevention (CDC) have developed a **standardized surveillance case definition** for multisystem inflammatory syndrome in children (MIS-C) associated with SARS-CoV-2 infection, **effective January 1, 2023**. MIS-C is reportable in Georgia, and suspect cases should be reported to the Georgia Department of Public Health (DPH). In 2023, 8 confirmed MIS-C cases have been reported to DPH including 3 cases reported in August-September.

BACKGROUND

In April of 2020, clinicians in the United Kingdom recognized the presence of severe inflammatory syndrome in otherwise healthy children that currently or recently tested positive for SARS-CoV-2. These patients presented with systemic signs and symptoms such as fever and hypotension as well as multiorgan system involvement. The illness was identified as MIS-C. MIS-C is seen in children who recently had COVID-19 in the past 2 to 6 weeks, even if the child was asymptomatic and/or the parent was unaware of the infection.

MIS-C IN GEORGIA

Since March 2020, 555 confirmed MIS-C cases have been reported to DPH, with zero deaths. Case-patient ages range from 4 months to 20 years, with an average age of 8.5 years. Sixty percent of cases were males. Approximately 57% of reported cases with race information available occurred in Black or African American children. 79% of the reported cases with ethnicity information available occurred in children of non-Hispanic ethnicity and 13% in children of Hispanic ethnicity.

CASE DEFINITION

CSTE and CDC have developed a standardized surveillance case definition for MIS-C associated with SARS-CoV-2 infection. The new standardized surveillance case definition went into effect on January 1, 2023.

The MIS-C case definition is as follows: any illness in a person **aged less than 21 years** that meets

- The clinical AND the laboratory criteria (Confirmed), **OR**
- The clinical criteria AND epidemiologic linkage criteria (Probable), **OR**
- The vital records criteria (Suspect)

Clinical Criteria	Laboratory Criteria for SARS-CoV-2 Infection	Epidemiologic Linkage Criteria	Vital Records Criteria
<p>An illness characterized by <u>all of the following</u>, in the absence of a more likely alternative diagnosis*</p> <ol style="list-style-type: none"> 1. Subjective or documented fever (temperature $\geq 38.0^{\circ}$ C) 2. Clinical severity requiring hospitalization or resulting in death 3. Evidence of systemic inflammation indicated by C-reactive protein ≥ 3.0 mg/dL (30 mg/L) 4. New onset manifestations in <u>at least two</u> of the following categories: <ul style="list-style-type: none"> • Cardiac involvement indicated by: Left ventricular ejection fraction $< 55\%$ OR Coronary artery dilatation, aneurysm, or ectasia, OR Troponin elevated above laboratory normal range, or indicated as elevated in a clinical note. <ul style="list-style-type: none"> • Mucocutaneous involvement indicated by: Rash, OR Inflammation of the oral mucosa (e.g., mucosal erythema or swelling, drying or fissuring of the lips, strawberry tongue), OR Conjunctivitis or conjunctival injection (redness of the eyes), OR Extremity findings (e.g., erythema [redness] or edema [swelling] of the hands or feet) <ul style="list-style-type: none"> • Shock** • Gastrointestinal involvement indicated by: Abdominal pain, OR Vomiting, OR Diarrhea <ul style="list-style-type: none"> • Hematologic involvement indicated by: Platelet count $< 150,000$ cells/μL, OR Absolute lymphocyte count (ALC) $< 1,000$ cells/μL 	<p>Detection of SARS-CoV-2 RNA in a clinical specimen*** up to 60 days prior to or during hospitalization, or in a post-mortem specimen using a diagnostic molecular amplification test (e.g., polymerase chain reaction [PCR]), OR</p> <p>Detection of SARS-CoV-2 specific antigen in a clinical specimen*** up to 60 days prior to or during hospitalization, or in a post-mortem specimen, OR</p> <p>Detection of SARS-CoV-2 specific antibodies^ in serum, plasma, or whole blood associated with current illness resulting in or during hospitalization</p>	<p>Close contact# with a confirmed or probable case of COVID-19 disease in the 60 days prior to hospitalization</p>	<p>A person whose death certificate lists MIS-C or multisystem inflammatory syndrome as an underlying cause of death or a significant condition contributing to death</p>

*If documented by the clinical treatment team, a final diagnosis of Kawasaki Disease should be considered an alternative diagnosis. These cases should not be reported to national MIS-C surveillance. ** Clinician documentation of shock meets this criterion. ***Positive molecular or antigen results from self-administered testing using over-the-counter test kits meet laboratory criteria. ^Includes a positive serology test regardless of COVID-19 vaccination status. Detection of anti-nucleocapsid antibody is indicative of SARS-CoV-2 infection, while anti-spike protein antibody may be induced either by COVID-19 vaccination or by SARS-CoV-2 infection. #Close contact is generally defined as being within 6 feet for at least 15 minutes (cumulative over a 24-hour period). However, it depends on the exposure level and setting; for example, in the setting of an aerosol-generating procedure in healthcare settings without proper personal protective equipment (PPE), this may be defined as any duration.

MIS-C CASE REPORTING

Since May 2020, CDC has requested reports of MIS-C. MIS-C is reportable in Georgia and suspect cases should be reported to the DPH within 7 days.

Report MIS-C cases, including MIS-C cases occurring after COVID-19 vaccination:

- Electronically through the State Electronic Notifiable Disease Surveillance System (SendSS): <https://sendss.state.ga.us/sendss/login.screen>
- Fax completed case report form to (404) 657-7517 ATTN: MIS-C Epidemiologist.
- Providers may report by phone to their local health district office during business hours or 1-866-PUB-HLTH (866-782-4584) on evenings and weekends. For a complete list of DPH health district offices please visit: <https://dph.georgia.gov/public-health-districts>

For information on clinical presentation and recommendations, laboratory testing, and treatment, visit the DPH MIS-C webpage <https://dph.georgia.gov/mis-c-healthcare-professionals>

CONTACT INFORMATION:

Gabrielle Williams, MPH

gabrielle.williams@dph.ga.gov

Wala Elbedewy MBBCh, MPH, MPA

wala.elbedewy@dph.ga.gov

Jessica Pavlick DrPH, MPH

jessica.pavlick@dph.ga.gov

DPH epidemiology main line: 404-657-2588