NEW YORK STATE OF OPPORTUNITY. Department of Health

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DATE: February 24, 2023

TO: Healthcare Providers, Healthcare Facilities, Clinical Laboratories, and Local Health Departments (LHDs)

FROM: New York State Department of Health (NYSDOH)

HEALTH ADVISORY:
MULTI-SYSTEM INFLAMMATORY SYNDROME IN CHILDREN (MIS-C) ASSOCIATED WITH CORONAVIRUS DISEASE 2019 (COVID-19) INFECTION OR COVID-19 VACCINATION –
UPDATED CASE DEFINITION – JANUARY 1, 2023

For all Clinical Staff in Pediatrics, Internal Medicine, Pulmonary and Intensive Care Medicine, Primary Care, Infectious Diseases, Emergency Medicine, Cardiology, Dermatology, Gastroenterology, Family Medicine, Hematology, Laboratory Medicine, and Infection Control/Epidemiology

SUMMARY

- Effective January 1, 2023, the New York State Department of Health (NYSDOH) implemented a revised surveillance case definition for multi-system inflammatory syndrome in children (MIS-C) associated with coronavirus disease 2019 (COVID-19) infection or vaccination. This revision mirrors recent changes to the Council of State and Territorial Epidemiologists (CSTE) and CDC MIS-C surveillance case definition[1].
- This guidance supersedes previous NYSDOH MIS-C case definition health advisories (January 28, 2022; May 13, 2020).
- Suspected and confirmed cases of MIS-C in persons < 21 years of age potentially associated with COVID-19 infection or COVID-19 vaccination **are required to be reported** to the pursuant to 10 NYCRR 2.1.

2023 CASE DEFINITION INCLUSION CRITERIA

The MIS-C case definition includes clinical, general/virologic laboratory, and epidemiological criteria.

MIS-C 2023 Case Definition Inclusion Criteria	
Age	Age <21 years
Fever	Subjective or documented fever (≥38.0°C) Note: fever no longer needs to exceed 24 hours
Illness Severity	Illness with clinical severity requiring hospitalization or resulting in death
Alternative Diagnosis	A more likely alternative diagnosis is not present*
Laboratory markers of inflammation	C-reactive protein ≥3.0 mg/dL (30 mg/L)
Organ System Involvement (2 or more)**	
Cardiac	• Left ventricular ejection fraction <55% • Coronary artery dilatation, aneurysm, or ectasia

[1] https://www.cdc.gov/mis/mis-c/hcp_cstecdc/index.html

MIS-C 2023 Case Definition Inclusion Criteria	
	• Troponin elevated above laboratory normal range or indicated as elevated in a clinical note
Shock	Clinician diagnosis documented in medical records.
Hematologic	• Thrombocytopenia (platelet count <150,000 cells/μL) • Lymphopenia (absolute lymphocyte count [ALC] <1,000 cells/μL)
Gastrointestinal	• Abdominal pain • Vomiting • Diarrhea
Dermatologic/ Mucocutaneous	• Rash • Inflammation of the oral mucosa • Conjunctivitis or conjunctival injection • Extremity findings
Laboratory Testing Criteria or Epidemiologic Linkage Criteria (1 or more)	
Laboratory Testing	• Positive viral test (i.e., NAAT/PCR or antigen) up to 60 days prior to or during hospitalization, or in post-mortem specimen*** • Detection of SARS-CoV-2 specific antibodies associated with current illness^
Epidemiologic Linkage	Close contact with a confirmed or probable case of COVID-19 disease in the 60 days prior to hospitalization
Death Certificate	Death certificate lists MIS-C as an underlying cause of death or a significant condition contributing to death‡

*Kawasaki Disease[2] (KD) may be an acceptable alternative diagnosis. If a final diagnosis of KD is made, these cases should NOT be reported to MIS-C surveillance.
**Renal, respiratory, and neurologic involvement were previously case defining, but are no longer included in the current case definition.
***Positive molecular or antigen results from self-administered testing meet laboratory criteria.
^Detection of anti-nucleocapsid antibody is specific to a SARS-CoV-2 infection, while anti-spike protein antibody may be a result of COVID-19 vaccination or SARS-CoV-2 infection.
‡Consider MIS-C in any pediatric death with evidence of recent COVID-19 infection or vaccination.

COVID-19 VACCINE IMPLICATIONS

- For pediatric patients who develop MIS-C within 60 days after receipt of a COVID-19 vaccine, consider referral to a specialist in infectious diseases, rheumatology, or cardiology.
- Clinicians may request a consultation from the Clinical Immunization Safety Assessment COVIDvax[3].
- In addition, these cases need to be reported to the Vaccine Adverse Event Reporting System[4] (VAERS) in accordance with federal requirements.

REPORTING

- Hospitals are required to report suspected and confirmed cases of MIS-C potentially associated with SARS-CoV-2 infection or COVID-19 vaccination in those < 21 years old to the NYSDOH pursuant to 10 NYCRR 2.1.
- Cases of MIS-C are reported using the Health Electronic Response Data System (HERDS) application on the NYSDOH Health Commerce System.

[2] https://www.cdc.gov/kawasaki/index.html
[3] https://www.cdc.gov/vaccinesafety/ensuringsafety/monitoring/cisa/index.html
[4] https://www.cdc.gov/vaccinesafety/hcproviders/reportingadverseevents.html

DATA AND STATISTICS

- As of January 19, 2023, the NYSDOH has investigated and confirmed 872 cases of MIS-C and 4 deaths attributed to MIS-C in New York children (under 21 years old).
- Of the children confirmed as MIS-C cases, 94 percent tested positive for COVID-19 either by diagnostic tests (PCR or antigen), antibody tests, or both.
- Additional and updated data are available at: https://coronavirus.health.ny.gov/multisystem-inflammatory-syndrome-children-mis-c

For questions about the HERDS survey, please contact: MISCNYS@health.ny.gov

Clinicians with questions can contact the NYSDOH Bureau of Communicable Disease Control at 518-473-4439 during business hours or 1-866-881-2809 evenings, weekends, and holidays.