

DATE:	5/25/2021
TO:	Health Alert Network
FROM:	Alison V. Beam, JD, Acting Secretary of Health
SUBJECT:	UPDATE: Multisystem Inflammatory Syndrome in Adults (MIS-A) Case Definition
DISTRIBUTION:	Statewide
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COUNTY:	n/a
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This transmission is a Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action.

HOSPITALS: PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, NURSING, AND LABORATORY STAFF IN YOUR HOSPITAL; **EMS COUNCILS:** PLEASE DISTRIBUTE AS APPROPRIATE; **FQHCs:** PLEASE DISTRIBUTE AS APPROPRIATE **LOCAL HEALTH JURISDICTIONS:** PLEASE DISTRIBUTE AS APPROPRIATE; **PROFESSIONAL ORGANIZATIONS:** PLEASE DISTRIBUTE TO YOUR MEMBERSHIP

- [Multisystem inflammatory syndrome in children \(MIS-C\)](#) is a rare but severe complication in children and young adults infected with SARS-CoV-2, the virus that causes COVID-19. Since June 2020, [several case reports](#) describe a similar multisystem inflammatory syndrome in adults (MIS-A).
- MIS-A is usually severe, with patients requiring intensive care; outcomes can be fatal.
- On May 20, CDC released a standard [case definition](#) for MIS-A.
- Clinicians should consider MIS-A in adults with compatible signs and symptoms. These patients might not have positive SARS-CoV-2 PCR or antigen test results, and antibody testing might be needed to confirm previous SARS-CoV-2 infection.
- Case definition criteria should be thoroughly reviewed, as MIS-A can be difficult to distinguish from severe COVID-19 infections.
- Healthcare providers should report suspect cases of MIS-A by faxing the attached case report form to 717-772-6975 or your local health department or by emailing the form to ra-dhccovidcontact@pa.gov

This guidance is based on available information about COVID-19 and subject to change as additional information becomes available. This HAN **replaces** [PAHAN 557](#).

Throughout the COVID-19 pandemic, reports of [multisystem inflammatory syndrome in children \(MIS-C\)](#) continue to increase in the United States with 3,742 total cases and 35 deaths reported from 48 states, New York City, Puerto Rico, and Washington, DC. As of May 20, Pennsylvania has reported 124 confirmed cases of MIS-C. Clinical features in children and young adults (aged 18-20 years) have varied but predominantly include shock, cardiac

dysfunction, abdominal pain, and elevated inflammatory markers, including C-reactive protein (CRP), ferritin, D-dimer, and interleukin-6. MIS-C case definition and reporting requirements are described in [PAHAN 529](#).

Since June 2020, several [case reports](#) have described a similar syndrome in adults (aged ≥ 21 years). These reports suggest that the presentation of the syndrome in adults may be more complicated than in children, with heterogeneity of clinical signs and symptoms. Patients with MIS-A typically require intensive care and can have fatal outcomes. Initial reports suggest that racial and ethnic minority groups might be disproportionately impacted by MIS-A.

Clinicians should consider MIS-A in adults with compatible signs and symptoms. These patients might not have positive SARS-CoV-2 PCR or antigen test results; therefore, antibody testing might be needed to confirm previous SARS-CoV-2 infection. Because of the temporal association between MIS-A and SARS-CoV-2 infections, interventions that prevent COVID-19 might prevent MIS-A. Further research is needed to understand the pathogenesis and long-term effects of this newly described condition.

On May 20, 2021, the CDC released a standard case definition for MIS-A. Case definition criteria should be thoroughly reviewed as MIS-A can be difficult to distinguish from severe COVID-19 infections.

MIS-A case definition

A patient aged ≥ 21 years hospitalized for ≥ 24 hours, or with an illness resulting in death, who meets the following clinical and laboratory criteria. The patient should not have a more likely alternative diagnosis for the illness (e.g., bacterial sepsis, exacerbation of chronic medical condition)

I. Clinical Criteria

Subjective fever or documented fever (≥ 38.0 C) for ≥ 24 hours prior to hospitalization or within the first THREE days of hospitalization* and at least THREE of the following clinical criteria occurring prior to hospitalization or within the first THREE days of hospitalization*. At least ONE must be a primary clinical criterion.

A. Primary clinical criteria

1. Severe cardiac illness

Includes myocarditis, pericarditis, coronary artery dilatation/aneurysm, or new-onset right or left ventricular dysfunction (LVEF $<$ 50%), 2nd/3rd degree A-V block, or ventricular tachycardia. (Note: cardiac arrest alone does not meet this criterion)

2. Rash AND non-purulent conjunctivitis

- B. Secondary clinical criteria
 - 1. New-onset neurologic signs and symptoms

Includes encephalopathy in a patient without prior cognitive impairment, seizures, meningeal signs, or peripheral neuropathy (including Guillain-Barré syndrome)

- 2. Shock or hypotension not attributable to medical therapy (e.g., sedation, renal replacement therapy)
- 3. Abdominal pain, vomiting, or diarrhea
- 4. Thrombocytopenia (platelet count <150,000/ microliter)

II. Laboratory evidence

The presence of laboratory evidence of inflammation AND SARS-CoV-2 infection.

- A. Elevated levels of at least TWO of the following: C-reactive protein, ferritin, IL-6, erythrocyte sedimentation rate, procalcitonin
- B. A positive SARS-CoV-2 test during the current illness by RT-PCR, serology, or antigen detection

NOTE: **These criteria must be met by the end of hospital day 3, where the date of hospital admission is hospital day 0.*

Reporting

Healthcare providers must report suspect cases of MIS-A which meet all of the case definition criteria and with onsets on or after Jan 1, 2021, by faxing the attached case report form to 717-772-6975 or your local health department or by emailing the form to rahcovidcontact@pa.gov. Race and ethnicity information should be collected and reported. Vaccination information should also be included, as appropriate.

Categories of Health Alert 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.

This information is current as of May 25, 2021 but may be modified in the future. We will continue to post updated information regarding the most common questions about this subject.
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