



Alert: Pediatric Multi-System Inflammatory Syndrome Potentially Associated with COVID-19

DATE:	5/11/2020
TO:	Health Alert Network
FROM:	Rachel Levine, MD, Secretary of Health
SUBJECT:	Pediatric Multi-System Inflammatory Syndrome Potentially Associated with COVID-19
DISTRIBUTION:	Statewide
LOCATION:	n/a
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a

This transmission is a “Health Alert”, conveys the highest level of importance; warrants immediate action or attention.

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; **LONG-TERM CARE FACILITIES:** PLEASE SHARE WITH ALL MEDICAL, INFECTION CONTROL, AND NURSING STAFF IN YOUR FACILITY

This guidance is based on available information about COVID-19 and subject to change as additional information becomes available.

- Cases compatible with multi-system inflammatory syndrome have been identified in children in New York City and United Kingdom hospitals.
- These cases are characterized by persistent fever and features of Kawasaki disease or toxic shock syndrome. Abdominal symptoms in these patients are common.
- These cases may require intensive care unit admission for cardiac or respiratory support.
- Polymerase chain reaction testing for SARS-CoV-2 may be positive or negative.
- Early recognition and specialist referral are essential, including to critical care if warranted.
- Any patient meeting these criteria should be immediately be reported to the PA DOH through PA-NEDSS or by calling 1-877-PA-HEALTH (1-877-724-3258).

A pediatric multi-system inflammatory syndrome, recently reported by authorities in the United Kingdom, is also being observed among children and young adults in New York City and elsewhere in the United States.

Clinical features vary, depending on the affected organ system, but have been noted to include features of Kawasaki disease or features of shock; however, the full spectrum of disease is not yet known. Persistent fever and elevated inflammatory markers (CRP, troponin, etc.) have been seen among affected patients. Patients with this syndrome who have been admitted to pediatric intensive care units (PICUs) have required cardiac and/or respiratory support. Only severe cases may have been recognized at this time.

The NYC Health Department identified 15 patients aged 2-15 years who had been hospitalized from April 17- May 1, 2020 with illnesses compatible with this syndrome (i.e., typical Kawasaki disease, incomplete Kawasaki disease, and/or shock). All patients had subjective or measured fever and more than half reported rash, abdominal pain, vomiting, or diarrhea. Respiratory symptoms were reported in less than half of these patients. Polymerase chain reaction (PCR) testing for SARS-CoV-2 has been positive (4), negative (10), and initially indeterminate and then negative (1). Six patients with negative testing by PCR were positive by serology. More than half of the reported patients required blood pressure support and five required mechanical ventilation. No fatalities have been reported among these cases.

If the above-described inflammatory syndrome is suspected, pediatricians should immediately refer patients to a specialist in pediatric infectious disease, rheumatology, and/or critical care, as indicated. Early diagnosis and treatment of patients meeting full or partial criteria for Kawasaki disease is critical to preventing end-organ damage and other long-term complications. Patients meeting criteria for Kawasaki disease should be treated with intravenous immunoglobulin and aspirin.

Any patient who meets the following criteria should immediately be reported to the PA DOH through PA-NEDSS or by calling 1-877-PA-HEALTH (1-877-724-3258):

- Less than 21 years of age, with persistent fever of more than 100.4° for 24 or more hours, laboratory evidence of inflammation, and evidence of clinically severe hospitalized illness such as single or multi-organ dysfunction (shock, cardiac, respiratory, renal, gastrointestinal, or neurological disorder);

AND

- No alternative etiology identified that explains the clinical presentation

This may include patients fulfilling criteria for incomplete Kawasaki disease, typical Kawasaki disease, or toxic shock syndrome-like presentation. Recommended alternative diagnostic tests include, but are not limited to, a respiratory viral panel and a blood culture.

Patients should be reported regardless of SARS-CoV-2 PCR test result.

If you have a patient meeting these criteria and would like to consult DOH, please call **1-877-PA-HEALTH (1-877-724-3258)**.

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 11, 2020, 2020 but may be modified in the future. We will continue to post updated information regarding the most common questions about this subject.