



The Commonwealth of Massachusetts  
 Executive Office of Health and Human Services  
 Department of Public Health  
 Bureau of Infectious Disease and Laboratory Sciences  
 305 South Street, Jamaica Plain, MA 02130

**CHARLES D. BAKER**  
 Governor

**KARYN E. POLITO**  
 Lieutenant Governor

**MARYLOU SUDDERS**  
 Secretary

**MONICA BHAREL, MD, MPH**  
 Commissioner

Tel: 617-624-6000  
[www.mass.gov/dph](http://www.mass.gov/dph)

**TO:** Massachusetts Health Care Providers  
**FROM:** Monica Bharel, MD, MPH  
 Commissioner of Public Health  
**DATE:** May 14, 2020  
**RE:** Declaration of Pediatric Multi-system Inflammatory Syndrome Immediately Reportable Pursuant to 105 CMR 300

The novel coronavirus which causes COVID-19 may be linked to a pediatric multi-system inflammatory syndrome (PMIS) with 9 suspect cases reported in Massachusetts. The purpose of this clinical advisory is to: (1) ensure providers are aware of PMIS potentially associated with COVID-19; (2) provide guidance on reporting of cases to the Massachusetts Department of Public Health (DPH); and, (3) recommend COVID-19 testing of patients who present with this syndrome. These cases are immediately reportable to the Massachusetts Department of Public Health (MDPH) pursuant to 105 CMR 300.150.

**Summary**

- As of May 14, 2020, 9 suspected PMIS cases associated with COVID-19 have been reported in children in Massachusetts hospitals.
- Healthcare providers must immediately report cases of PMIS, possibly associated with COVID-19, in patients who are under 21 years of age to DPH.
- Testing to detect the presence of SARS-COV-2, the virus that causes COVID-19, or corresponding antibodies in patients presenting with PMIS should be performed.

**Mandatory Reporting**

The novel coronavirus which causes COVID-19 may be linked to a pediatric multi-system inflammatory syndrome (PMIS) that has features which overlap with Kawasaki disease and toxic shock syndrome.

Because PMIS is recently identified or suspected to be a public health concern, and in order to reduce morbidity and mortality in the Commonwealth due to PMIS, I declare confirmed and suspect cases of PMIS to be immediately reportable to the Massachusetts Department of Public Health (Department) pursuant to 105 CMR 300.150: Declaring a Disease or Condition Immediately Reportable, Under Surveillance and/or Subject to Isolation and Quarantine: Temporary Reporting, Surveillance and/or Isolation and Quarantine. Additionally, the Department and local boards of health are authorized to respond to confirmed and suspect cases of PMIS as provided for in 105 CMR 300.00, including but not limited to conducting surveillance activities pursuant to 105 CMR 300.190 and implementing necessary isolation and quarantine consistent with 105 CMR 300.200 and 300.210.

All health care providers, as defined in 105 CMR 300.020, are hereby required to report all confirmed and suspect cases of PMIS by a method designated by the Department. For purposes of reporting, the case definition and reporting method is as published by the attached Massachusetts Department of Public Health Clinical Advisory, which may be updated or amended from time to time. This declaration does not alter any other reporting requirement provided for in 105 CMR 300.00.

This declaration is effective immediately, and shall remain effective for twelve months unless otherwise rescinded or superseded before that date.

**The clinical information and case definition to use for reporting provided below are accurate as of May 14, 2020 and will be updated as needed.**

### **Clinical Information**

- Pediatric cases of coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), have been reported. However, there are relatively fewer cases of COVID-19 among children compared to cases among adult patients.
- In the United Kingdom, Europe, and New York state, a possible link has been reported between COVID-19 and a serious inflammatory syndrome recently termed “Pediatric Multi-System Inflammatory Syndrome Temporally Associated with COVID-19.”
- This syndrome has features which overlap with Kawasaki disease and toxic shock syndrome. Inflammatory markers may be elevated, and fever and abdominal symptoms may be prominent. Other reported findings have included rash, myocarditis and other cardiovascular changes, coagulopathies, and acute kidney injury. Additionally, some patients have developed cardiogenic or vasogenic shock and required intensive care. Respiratory symptoms may not be a prominent feature.
- This inflammatory syndrome may occur days to weeks after acute COVID-19 illness.
- The majority of patients who have presented with this syndrome have tested positive for SARS-COV-2. Some were positive on diagnostic molecular testing for SARS-COV-2, others were positive on serological testing for corresponding antibodies.
- Health care providers should elicit any recent history of illness with COVID-19, or close contact with individuals who are known to have COVID-19, in children presenting with symptoms that are compatible with a pediatric multi-system inflammatory syndrome.
- This syndrome should be considered particularly when other microbial etiologies have been ruled out.
- Early recognition by pediatricians and prompt involvement with specialists in infectious disease, rheumatology, cardiology, and critical care are essential to anticipate and manage aspects of the syndrome.

### **Case Definition and Reporting**

Healthcare providers must immediately report cases of pediatric multi-system inflammatory syndrome, possibly associated with COVID-19, in patients who are under 21 years of age to DPH. For reporting purposes, the criteria which define a case are:

- An individual aged < 21 years presenting with fever (>38.0C for ≥24 hours), laboratory evidence of inflammation, and evidence of clinically severe hospitalized illness such as single or multi-organ dysfunction (shock, cardiac, renal, hematologic, gastrointestinal or neurological disorder); **AND**
- No evidence of alternative plausible diagnoses; **AND**
- SARS-CoV-2 PCR, serology, or antigen positive **OR** PCR negative with COVID-19 exposure in the past 4 weeks prior to onset of symptoms.

Laboratory evidence of inflammation may include but is not limited to: neutrophilia, elevated CRP, lymphopenia, CRP, ESR, fibrinogen, procalcitonin, D-dimer, ferritin, LDH, IL-6, hypoalbuminemia. Additional recommended diagnostic testing includes a respiratory viral panel and blood culture. Isolated respiratory disease does not meet criteria.

**Please contact Katherine Hsu, MD, MPH at [katherine.hsu@state.ma.us](mailto:katherine.hsu@state.ma.us) for further questions or to report a case.**

**Resources**

[MDPH COVID-19 Website](#)

[Centers for Disease Control and Prevention \(CDC\) COVID-19: Information for Pediatric Healthcare Providers Website](#)

[Royal College of Paediatrics and Child Health Guidance: Guidance: Paediatric Multisystem Inflammatory Syndrome Temporally Associated with COVID-19](#)