

# Pediatric Multi-system Inflammatory Syndrome (PMIS) or Multisystem Inflammatory Syndrome in Children (MIS-C)

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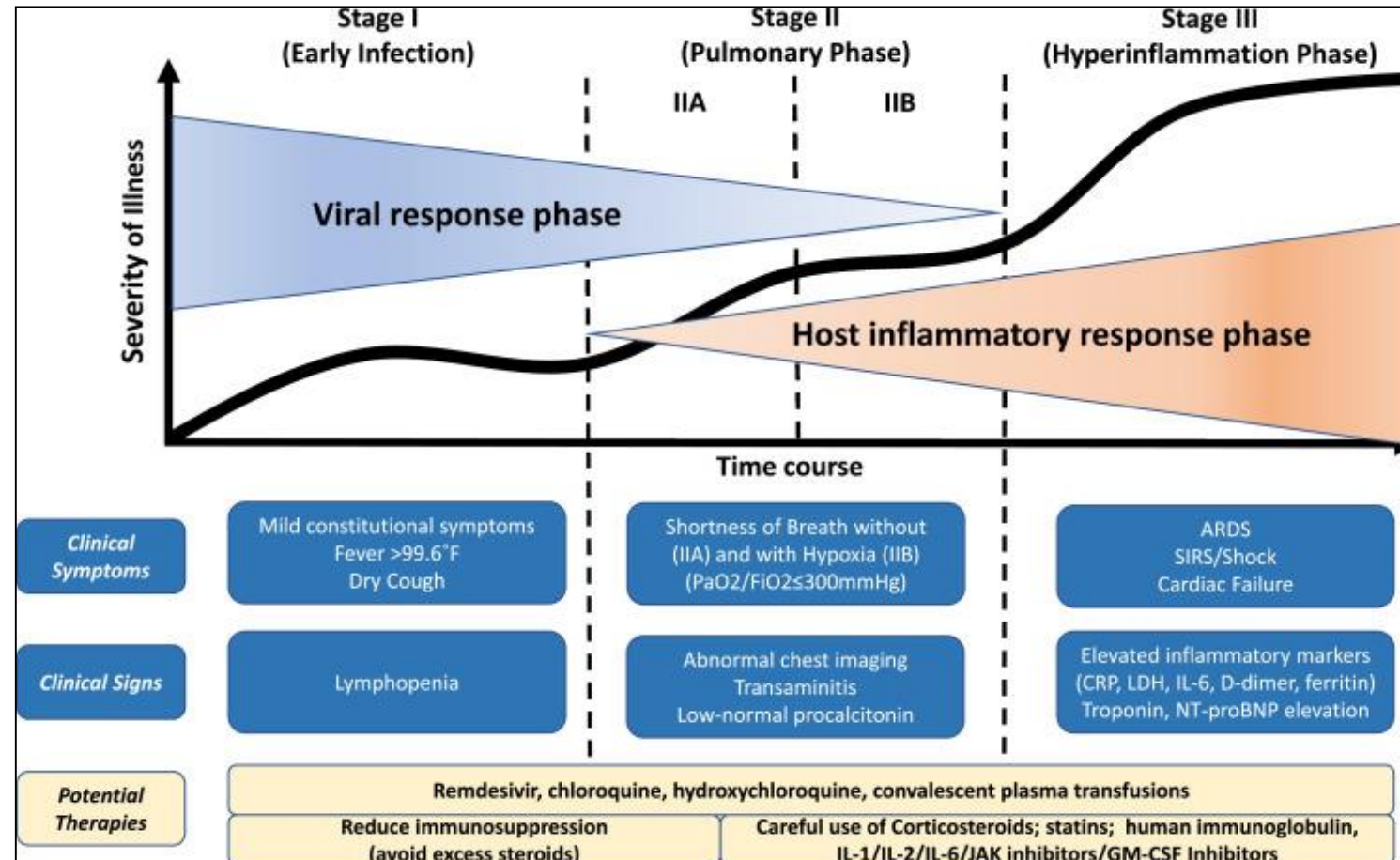
# Pediatric Multi-System Inflammatory Syndrome (PMIS)

- On May 14<sup>th</sup>, added as an Immediately Reportable Disease, pursuant to 105 CMR 300

## 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.

# Figure 1. COVID-19 Disease States and Potential Therapeutic Targets



# Pediatric Multi-System Inflammatory Syndrome (PMIS): Massachusetts

- Suspect cases of PMIS as of 6/4/2020:

<b>Number of suspect PMIS cases</b>	<b>32</b>
<b>Average age at onset, years (range)</b>	<b>9.2 (0.1 - 19.4)</b>
<b>Gender:</b>	
<b>Female</b>	<b>11</b>
<b>Male</b>	<b>21</b>

Total confirmed cases of COVID-19 in Massachusetts in <20 year olds as of 6/3/2020: 4,993

Total COVID-19 cases reported as hospitalized in Massachusetts in <20 year olds as of 6/3/2020: 83

Retrieved from: <https://www.mass.gov/doc/covid-19-dashboard-june-3-2020/download>

# Pediatric Multi-System Inflammatory Syndrome (PMIS): Reporting Responsibilities

- Hospitals are reporting cases directly to MDPH
  - Cases are received and reviewed by MDPH clinical staff
  - MAVEN events are created by MDPH and linked to cluster event
  - Hospital records are attached to MAVEN event as soon as received by MDPH
- Local Board of Health Responsibilities
  - Only Contact Tracing is needed
  - Please write a note/acknowledge the case in Admin Question Package so we know you have seen the case
- Clinical Practice Responsibilities
  - Support of families
  - Provision of information should MDPH clinical staff reach out

# Resources

## For Clinicians:

- American Academy of Pediatrics (AAP) website:  
<https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/>
- CDC COCA: <https://emergency.cdc.gov/coca/>
  - COCA Call: May 19, 2020 – Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with Coronavirus Disease 2019 (COVID-19)

## For Parents:

### AAP HealthyChildren.org's website

- <https://www.healthychildren.org/English/health-issues/conditions/chest-lungs/Pages/2019-Novel-Coronavirus.aspx>
- <https://www.healthychildren.org/English/health-issues/conditions/chest-lungs/Pages/covid-inflammatory-condition.aspx>



The screenshot shows the HealthyChildren.org website. The header includes the logo, the text "Powered by pediatricians. Trusted by parents. from the American Academy of Pediatrics", and a search bar. The main navigation menu includes "Ages & Stages", "Healthy Living", "Safety & Prevention", "Family Life", "Health Issues", "News", "Tips & Tools", and "Our Mission". The "Health Issues" section is active, and the breadcrumb trail reads "Healthy Children > Health Issues > Conditions > Chest & Lungs > COVID-19 and Multi-System Inflammatory Syndrome in Children". The page title is "COVID-19 and Multi-System Inflammatory Syndrome in Children". The main content area features a "HEALTH ISSUES" section with a "LISTEN" button and a "Español" link. Below this is a "Conditions" list with "Chest & Lungs" selected. The main text begins with "You may have heard news reports about a possible connection between COVID-19 and a rare but serious health condition in children called Multi-System Inflammatory Syndrome in Children (MIS-C). We are watching this very carefully and trying to learn all that we can about it." An image of a woman talking on a phone while a child sleeps in the background is also visible.