COVID-19:
Multisystem Inflammatory Syndrome in Children (MIS-C)

What Do We Know So Far?

- COVID-19 is typically mild in children and may not warrant a visit to the emergency department or Pediatrician's office. If a patient under 21 years of age presents with any of the below signs and symptoms, treat the symptoms and consider the possibility of MIS-C.
- Recently, cases of a severe inflammatory syndrome in children with COVID-19 have been reported in multiple locations including Italy, United Kingdom, India and the United States.
- There is limited information currently available about risk factors, pathogenesis, clinical course and treatment for MIS-C.

Clinical Signs and Symptoms May Include:

- **ALL CASES: Persistent Fever >38.5°C or 101.3°F**

MOST CASES:
- Oxygen requirement
- Hypotension

SOME CASES:
- Abdominal pain
- Confusion
- Conjunctivitis
- Cough
- Diarrhea/Vomiting
- Headache
- Enlarged lymph nodes
- Mucus membrane changes
- Neck swelling
- Rash
- Respiratory symptoms
- Sore throat
- Swollen hands and feet
- Syncope

What Can You Do?

- **If you have a patient under 21 with a fever, ask about known COVID-19 exposure** in the four weeks prior to the onset of any of the above signs and symptoms and report it to the receiving healthcare professionals.
- Stay informed, sign up for health alerts from your local health department and CDC.

It is unlikely you will know if your patient has MIS-C during your encounter. A case definition has been provided by public health officials and is provided below for your information.

Case Definition for Multisystem Inflammatory Syndrome in Children (MIS-C)

- An individual aged <21 years presenting with fever[i], laboratory evidence of inflammation[ii] and evidence of clinically severe illness requiring hospitalization with multisystem (>2) organ involvement (cardiac, renal, respiratory, hematologic, gastrointestinal, dermatologic or neurological); AND
- No alternative plausible diagnoses; AND
- Positive for current or recent COVID-19 infection by RT-PCR, serology or antigen test, or COVID-19 exposure within the four weeks prior to the onset of symptoms

[i]Fever >38.0°C or 101.3°F for ≥24 hours, or report of subjective fever lasting ≥24 hours

[ii]Including, but not limited to, one or more of the following: an elevated C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), fibrinogen, procalcitonin, d-dimer, ferritin, lactic acid dehydrogenase (LDH), or interleukin 6 (IL-6), elevated neutrophils, reduced lymphocytes and low albumin

Sources

1. CDC Health Advisory on Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with Coronavirus Disease 2019 (COVID-19). 2. Royal College of Paediatrics and Child Health Guidance: Paediatric multisystem inflammatory syndrome temporally associated with COVID-19, https://www.rcpch.ac.uk/sites/default/files/2020-05/COVID-19-Paediatric-multisystem-%20inflammatory%20syndrome-20200501.pdf.