### MIS-C — ED setting

**when to consider evaluation for MIS-C**

An individual aged <21 years +
fever* +
lab evidence of inflammation** +
clinically severe illness requiring hospitalization with involvement of 2 or more organ systems***

**AND**

Positive for current or recent SARS-CoV-2 infection
- PCR NP swab
- Blood test SARS-CoV-2 IgG

**OR**
COVID-19 exposure within the 4 weeks prior to the onset of symptoms

**AND**

No alternative plausible diagnoses

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* Fever - 38.0°C or higher for 24 hours or more, or report of subjective fever lasting 24 hours or more.

** One or more of the following: an elevated C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), fibrinogen, procalcitonin, d-dimer, ferritin, lactric acid dehydrogenase (LDH), elevated neutrophils, reduced lymphocytes and low albumin.

Additional comments:
- Patients meeting criteria for Kawasaki disease should be reported if they also meet CDC definition for MIS-C.
- Consider MIS-C in any pediatric death with evidence of SARS-CoV-2 infection.

*** Multisystem involvement examples
- Cardiovascular: Shock, increased troponin, elevated BNP, abnormal echocardiogram, arrhythmia
- Respiratory: pneumonia, pulmonary embolism, ARDS
- Renal: AKI, renal failure
- Neurologic: aseptic meningitis, stroke, seizure
- Gl: Increased LFTS, diarrhea, GI bleed, ileus, vomiting, abdominal pain
- Dermatologic: Rash, mucositis, erythroderma

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**Fever of 24 hours or more is not sufficient to diagnose MIS-C. To meet the CDC case definition, all components must be present.**

**Alternative etiologies should be explored to rule out any other plausible diagnosis.**

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**Defined by Centers for Disease Control (CDC)**
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Providers are encouraged to consider and explore other etiologies (keep the differential broad). Many non-MIS-C etiologies cause similar clinical presentations and laboratory changes. Premature diagnosis to MIS-C could result in a delayed diagnosis and ultimately harm to the patient.

pediatric ED

Patient appears toxic or requires emergent interventions.

Yes

Stabilize. Evaluate for non-coronavirus and coronavirus etiologies. Obtain MIS-C initial lab/imaging evaluation below when patient is stable.

No

Consider/evaluate for non-coronavirus related illness before considering MIS-C

Unexplained prolonged fever (usually more than 24 hours) AND involvement of 2 or more organ systems OR Doesn’t meet fever criteria but has evidence of systemic inflammation.

Yes

Non-coronavirus related etiology.

Exit guideline.

No

Initial lab/imaging evaluation for MIS-C

- SARS-CoV-2 PCR NP swab
- SARS-CoV2 IgG blood antibody testing
- CBCPD - CMP - UA
- CRP - ESR - Ferritin
- D-Dimer - Troponin 1 - BNP
- Procalcitonin - Pt/PTT/INR - CXR
- Consider blood/urine culture, if concerned.
- Other laboratory and diagnostic test, if indicated.

Hospitalized with Unlikely to be MIS-C. Disposition based on whether you would normally discharge the patient to home or admit.

Coronavirus available tests are still changing rapidly, listed tests current at time of publication. Use what is available in EPIC at time of patient evaluation

Some results abnormal.

Ferritin (<500) and troponin normal, other results normal or abnormal - Disposition based on whether you would normally discharge the patient to home or admit. Consider contact with rheumatology to discuss disposition/follow-up if MIS-C is highly suspected.

All available results are normal.

Ferritin (>500) and /or troponin abnormal

Admit to care area appropriate for patient’s current severity of illness. Additional evaluation may be performed in the ED or after admission based on severity of illness and/or lab results:

Diagnostics:
- ECG
- Pediatric Echo Doppler 2D M-mode Color Complete (stat if patient condition warrants or elevated troponin I, cardiology consult)
- Other laboratory and diagnostic tests as indicated by clinical assessment