

Case Definition: An individual < 21 years with at least 1 day of subjective or objective fever ($\geq 100.4^{\circ}\text{F}/38^{\circ}\text{C}$), hospitalization and who meets clinical and general laboratory criteria with no alternate diagnosis that could account for the illness. Positive current/recent SARS-CoV-2 Ag, PCR or serology or exposure to a case within 4 weeks of onset of symptoms.

- At least 1 of the following:**
- Hypotension or shock
 - Features of severe cardiac illness
 - Other severe end-organ involvement including neurological or renal disease (excluding isolated severe respiratory disease)

OR

- At least 2 of the following:**
- Maculopapular rash, NOT vesicular
 - Bilateral non-purulent conjunctivitis
 - Mucocutaneous inflammatory signs: red, cracked lips, strawberry tongue, red hands and/or feet
 - Acute GI symptoms: diarrhea, vomiting, abdominal pain

AND

General Lab Criteria- at least 2:
Elevated: Neutrophil count, Fibrinogen, D-Dimer, Ferritin, LDH, IL-6, Procalcitonin
Low: lymphocytes, platelets, albumin

Practice Guideline: Multisystem Inflammatory Syndrome in Children (MIS-C)

Stable

Unstable

Obtain initial labs: CBC, Chem 8, LFTs, ESR, CRP, RVP, SARS-CoV-2 PCR [Other testing as clinically indicated]

Sepsis Power Plan

- Give Ceftriaxone
- Consider Vancomycin vs. Linezolid as clinically indicated

PE & Labs Reassuring

PE/labs concerning but not consistent with MIS-C

CRP ≥ 3 and/or ESR ≥ 40
AND
 Lymphopenia < 1K
OR
 Thrombocytopenia < 150K
OR
 Na < 135
OR
 Abnormal creatinine

Obtain additional labs: PT/PTT, D-dimer, Ferritin, Fibrinogen, SARS-CoV-2 antibodies, Troponin, pro-BNP, LDH, Lactate, ABG/VBG, CXR, consider abdominal imaging, EKG
 Consults to obtain: Critical Care, ID, Rheum, Cardio
 Consults to consider early if clinically indicated: Heme, Nephro

Discharge with f/u in 24-48hr

Consider admission for observation/re-evaluation

Initial Treatment Considerations:

- Gentle fluid resuscitation (10cc/kg at a time for < 50kg; no more than 500cc at a time for >50kg) with frequent reassessment for signs of heart failure: tachycardia, tachypnea, edema
- Inotropic support

Treatment Strategies

Rheumatology

First line treatment:

PPI
 2g/kg IVIG
 Consider steroids (Methylpred) with rheum input:

- Mild/moderate: 1-2mg/kg/day q12h
- Severe (pressors, refractory, MAS): 10-30mg/kg/day x 3 days
- Rapidly deteriorating/MAS/not improved with steroids:
- Anakinra: 1-2mg/kg/dose (up to 4mg/kg/day have been used)

Hematology

Patients	Risk Factors	D-Dimer > 5xULN	Anticoagulation
Hospitalized with mod-severe COVID-19 related illness (including MIS-C)	No	No	No
	≥ 1	N/A	Yes
	N/A	Yes	Yes
Hospitalized with asymptomatic to mild Covid-19-related illness	0-2	N/A	No
	≥ 3	N/A	Yes

Risk factors (RF) which will increase risk of thrombosis include: Age >12 or pubertal, obesity, indwelling venous catheter, mechanical ventilation, OCP use, family history of VTA (at age <40 or unprovoked), known thrombophilia or history of thrombosis, active malignancy, sickle cell disease, inflammatory bowel disease, nephrotic syndrome, rheumatologic disorders, congenital heart disease

Aspirin (without coronary artery aneurysms):

- No use of high dose aspirin (all patients are getting steroids for anti-inflammatory effect)
- If on Lovenox, no low dose aspirin
- Once Hematology discontinues Lovenox, transition to low-dose aspirin (3-5mg/kg/day once per day)
- If no anticoagulation is needed. start low-dose aspirin prior to discharge