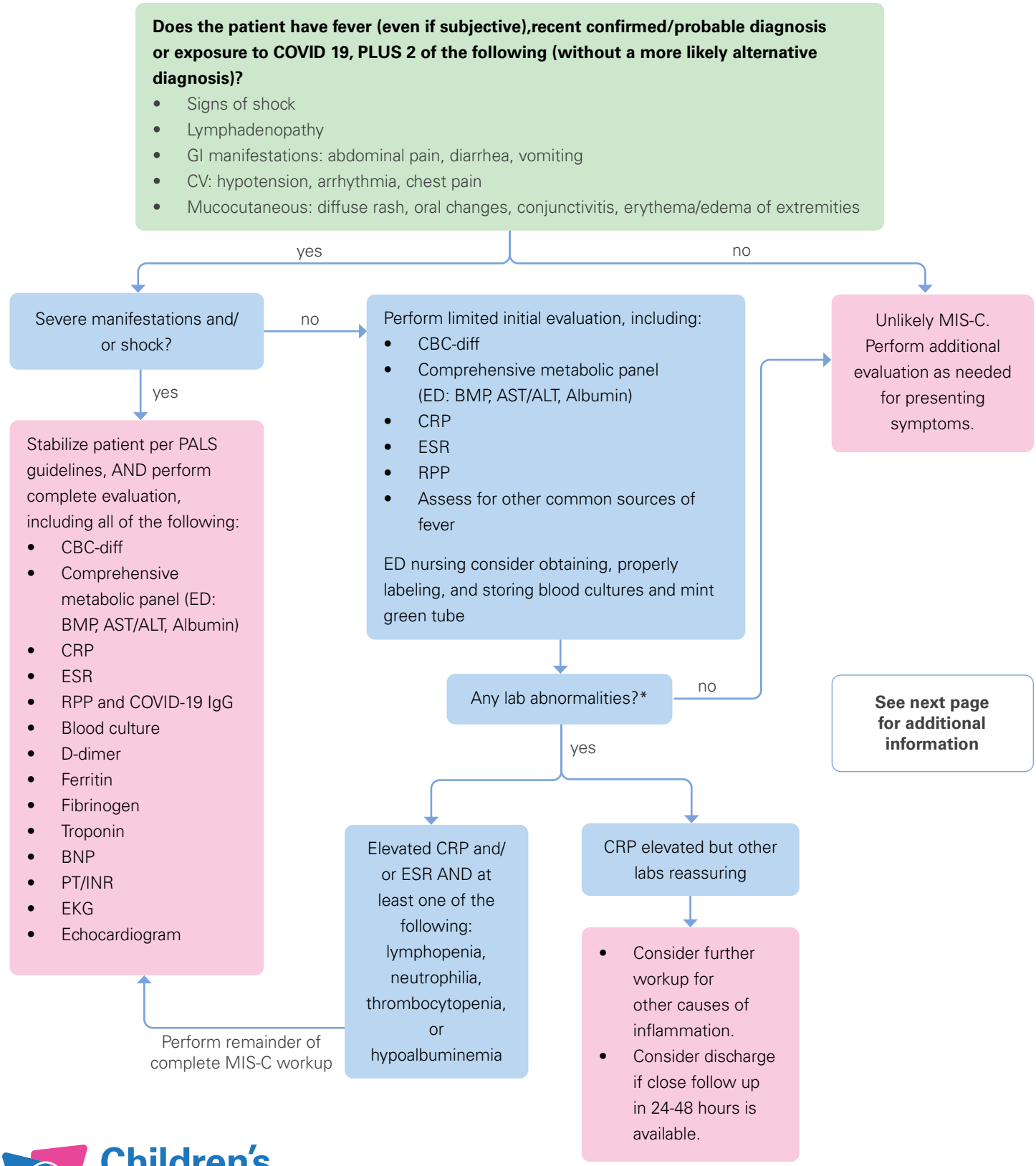
Clinical Guideline

This guideline should not replace clinical judgment.

Multisystem Inflammatory Syndrome in Children (MIS-C)

Pediatric Emergency Medicine, Inpatient Pediatrics and General Pediatrics



Children's Hospital of Richmond at VCU

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CDC MIS-C definition:

- In a person aged <21 years, and in the absence of a more likely alternative diagnosis:
  - Subjective or documented fever (T≥38.0 °C)
  - CRP ≥3.0mg/dL
  - Evidence of clinically severe illness requiring hospitalization (or resulting in death) with new onset manifestations in 2 of the following categories:

a. Cardiac involvement indicated by:
   - Left ventricular ejection fraction <55% OR
   - Coronary artery dilatation, aneurysm, or ectasia, OR
   - Troponin elevated above laboratory normal range, or indicated as elevated in a clinical note

b. Mucocutaneous involvement indicated by:
   - Rash, OR
   - Inflammation of the oral mucosa (e.g., mucosal erythema or swelling, drying or fissuring of the lips, strawberry tongue),
   - New onset manifestations in at least two of the following categories:

c. Shock

d. Gastrointestinal involvement indicated by:
   - Abdominal pain, OR
   - Vomiting, OR
   - Diarrhea

e. Hematologic involvement indicated by:
   - Platelet count <150,000 cells/μL, OR
   - Absolute lymphocyte count (ALC) <1000

AND

Detection of SARS CoV 2 nucleic acid/antigen up to 60 days prior to or during hospitalization (or in a post mortem specimen), OR detection of antibody associated with current illness, OR close contact with a confirmed/probably COVID 19 case in the 60 days prior to hospitalization (Note: need not have been symptomatic from initial infection)

***Common lab abnormalities:**

- CRP ≥3mg/dL
- ESR≥40 mm/hr
- ALT ≥40 U/L
- Albumin ≤3.0g/dL
- D-dimer >0.55mg/L
- BNP >400pg/mL
- Elevated troponin
- Sodium <135mEq/L
- Platelet count <150/mm3
- Absolute lymphocyte count <1000
- Absolute neutrophil count >7700
- Ferritin >500ng/mL
- Fibronogen >400mg/dL
- INR >1.1

When to consult in a patient with suspected MIS-C:

- Cardiology: abnormal troponins, BNP, EKG, or echo
- Infectious diseases: if patient meets MIS-C criteria based on CDC definition after complete workup

Consider hospital admission if any of the following:

- Abnormal vital signs (tachycardia, tachypnea)
- Respiratory distress
- Neurologic deficits/AMS
- Evidence of renal/hepatic injury
- CRP>10mg/dL
- Abnormal EKG, BNP, or troponins

Multisystem Inflammatory Syndrome (MIS-C) Guideline
Executive Summary

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Approved (January 2021)

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References

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Retrieval website: **http://www.chrichmond.org/clinicalguideline**

Example:

Children's Hospital of Richmond at VCU, O'Boyle H, Godbout E. MIS-C Guideline. Available from: http://www.chrichmond.org/clinical-guideline-MISC