

Supplemental information

Mapping Systemic Inflammation and Antibody Responses in Multisystem Inflammatory Syndrome in Children (MIS-C)

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Diagnostic Criteria	
MIS-C	Pediatric COVID
Children and adolescents under the age of 21	Children and adolescents under the age of 21
Fever for 3 days or more, or report of one	Positive RT-PCR test for active SARS-CoV-2 infection
Clinical signs of multisystem involvement (at least 2 of the following): <ol style="list-style-type: none"> 1. Rash, bilateral nonpurulent conjunctivitis, or mucocutaneous inflammation signs (oral, hands, or feet) 2. Hypotension or shock 3. Cardiac dysfunction, pericarditis, valvulitis, or coronary abnormalities (including echocardiographic findings or elevated troponin/BNP) 4. Evidence of coagulopathy (prolonged PT or PTT; elevated D-dimer) 5. Acute gastrointestinal symptoms (diarrhea, vomiting, or abdominal pain) 	Signs of upper respiratory infection <ol style="list-style-type: none"> 1. Cough 2. Shortness of breath 3. Fever 4. Nasal congestion
Elevated markers of inflammation (eg, ESR, CRP, or procalcitonin)	Does not meet MIS-C criteria
No other obvious microbial cause of inflammation, including bacterial sepsis and staphylococcal/streptococcal toxic shock syndromes	
Evidence of SARS-CoV-2 exposure (RT-PCR, serologically positive) <p>Any of the following:</p> <ul style="list-style-type: none"> Positive SARS-CoV-2 RT-PCR Positive serology Positive antigen test Contact with an individual with COVID-19 	

	ped COVID 1	ped COVID 2	ped COVID 3	ped COVID 4	ped COVID 5	ped COVID 6	Aggregate
Sex	Female	Male	Male	Female	Male	Male	4/6 Male
Age range (years)	7~13	14~20	0-6	14~20	14~20	7~13	7
Ethnicity	Hispanic	Hispanic	Hispanic	NA	Hispanic	NA	4/6 Hispanic
Comorbidities	B-ALL	Asthma, Anxiety	Wam autoimmune hemolytic anemia, prior CMV viremia	Pineoblastoma	B-ALL, Anxiety	Gastroschisis, Small bowel transplant (tacrolimus)	6/6
WHO MIS-C Criteria	-	-	-	-	-	-	
Fever	Yes	Yes	Yes	No	Yes	Yes	5/6
Rash	No	No	No	No	No	No	0/6
Conjunctivitis	No	No	No	No	No	No	0/6
Mucocutaneous	No	No	No	No	No	No	0/6
Extremity	No	No	No	No	No	No	0/6
Gastrointestinal	No	No	No	No	No	No	0/6
Hypotension / shock	Yes	No	No	No	No	No	1/6
Cardiac Abnormalities	None	None	None	None	None	None	0/6
Coagulopathy	NA	↑ PT	↑ D-dimer ↑ PT ↑ PTT	↑ D-dimer ↑ PTT	↑ D-dimer	NA	4/6
Inflammatory Markers	↑ ESR ↑ CRP	↑ ESR ↑ CRP ↑ PCT	↑ CRP	↑ CRP	↑ CRP	↑ CRP	6/6
Other microbial cause	No	No	No	No	No	C.difficile	1/6
CoV-2 PCR	Pos	Pos	Pos	Pos	Pos	Pos	6/6
Prior Cov-2 Exposure	NA	NA	NA	NA	NA	NA	0/6
CoV-2 Serology	NA	+	NA	+	NA	+	3/3
Other Clinical Features	Cough, SOB, Hip pain, RAD	Cough, SOB, Tachypnea, PNA + LLL consolidation, Fatigue	Cough, Nasal congestion, RLL opacities, PNA/atelectasis	Anosmia	Cough, Fatigue	Cough, Nasal congestion	
Treatments	Cefepime, HCQ, Azithromycin, Mercaptopurine, Methotrexate, Dexamethasone	Ceftriaxone, HCQ, Azithromycin, Apixaban, Convalescent plasma	Cefepime, Azithromycin, IVIG, Sirolimus, Hydrocortisone	Bevacizumab, Temozolomide, Irinotecan	HCQ, Azithromycin, Vincristine	HCQ, Thymoglobulin, Rituximab, Hydrocortisone	
Admission duration (days)	8	12	9	3	1	5	Median 8 days
Outcome	Favorable	Favorable	Favorable	Favorable	Favorable	Favorable	