

## Supplemental Information

**SUPPLEMENTAL TABLE 5** Characteristics of Patients Hospitalized for Multisystem Inflammatory Syndrome in Children, 6 Hospitals, United States, July to August 2021, *N* = 25

Characteristic	<i>n</i> (%)
Male sex, <i>n</i> (%)	15 (60.0)
Age, years, <i>n</i> (%)	
<1	1 (4.0)
1–4	9 (36.0)
5–11	7 (28.0)
12–17	8 (32.0)
18–20	0
Race and ethnicity, <i>n</i> (%)	
White, non-Hispanic	8 (32.0)
Black, non-Hispanic	10 (40.0)
Hispanic	4 (16.0)
Other/unknown	3 (12.0)
Insurance status, <i>n</i> (%)	
Medicaid	13 (52.0)
Private	7 (28.0)
Uninsured	2 (8.0)
Other or unknown	3 (12.0)
Underlying medical conditions, <sup>a</sup> <i>n</i> (%)	
0	17 (68.0)
1	6 (24.0)
2 or more	2 (8.0)
Complications, <sup>b</sup> <i>n</i> (%)	
Shock	9 (36.0)
Heart failure	4 (16.0)
Treatments, <sup>b</sup> <i>n</i> (%)	
Steroids	22 (88.0)
Anakinra	8 (32.0)
IVIg	18 (72.0)
ICU requirement	
Any admission, <i>n</i> (%)	10 (40.0)
Duration, d, median (IQR)	3 (2.0, 3.0)
Died, <i>n</i> (%)	0

IVIg, intravenous immunoglobulin.

<sup>a</sup> Defined by the following groups: neurologic and developmental conditions (attention deficit hyperactivity disorder, autism spectrum disorder, cerebral palsy, cognitive dysfunction, muscular dystrophy, neural tube defect or spina bifida, neurologic/neurodevelopmental disorder, neuropathy, plegias or paralysis, preterm birth [for children aged <2 y only], seizure disorder, and wheelchair or walker-dependence or bed-bound status); respiratory conditions (active tuberculosis, asthma or reactive airway disease, chronic hypoxemic respiratory failure with oxygen or ventilator dependence, cystic fibrosis, current smoking or e-cigarette use, tracheostomy dependence, and other chronic lung diseases); cardiovascular conditions (congenital heart disease, valvular heart disease, hypertension, and other cardiovascular disease); metabolic and endocrine conditions (dyslipidemia, obesity, thyroid disorder, type 1 diabetes, type 2 diabetes, and other endocrine disorders); gastrointestinal or hepatic conditions (Crohn's disease, feeding tube dependence, liver disease, malnutrition, ulcerative colitis, and other gastrointestinal disorders); and psychiatric conditions (anxiety, borderline personality disorder, depression, substance use disorder, and other psychiatric diagnoses).

<sup>b</sup> List is not exhaustive.

**SUPPLEMENTAL TABLE 6** Characteristics of Patients Aged <5 Years Hospitalized for COVID-19, by Viral Coinfection Status, 6 Hospitals, United States, July to August 2021, *N* = 298

	Without Viral Coinfection <i>n</i> = 197	With Viral Coinfection <i>n</i> = 101
Underlying medical conditions, <sup>a</sup> <i>n</i> (%)		
0	115 (58.4)	60 (59.4)
1	42 (21.3)	27 (26.7)
2 or more	40 (20.3)	14 (13.9)
Underlying condition, <i>n</i> (%)		
Preterm	29 (14.7)	18 (17.8)
Feeding tube dependent	21 (10.7)	9 (8.9)
Seizure disorder	17 (8.6)	4 (4.0)
Congenital heart disease	8 (4.1)	8 (7.9)
ICU admission, <i>n</i> (%)	32 (16.2)	33 (32.7)
Any respiratory support, <i>n</i> (%)	75 (38.1)	72 (71.3)
Died, <i>n</i> (%)	0	2 (2.0)

<sup>a</sup> Defined by the following groups: neurologic and developmental conditions (attention deficit hyperactivity disorder, autism spectrum disorder, cerebral palsy, cognitive dysfunction, muscular dystrophy, neural tube defect or spina bifida, neurologic or neurodevelopmental disorder, neuropathy, plegias or paralysis, preterm birth [for children aged <2 y only], seizure disorder, and wheelchair or walker-dependence or bed-bound status); respiratory conditions (active tuberculosis, asthma or reactive airway disease, chronic hypoxemic respiratory failure with oxygen or ventilator dependence, cystic fibrosis, current smoking or e-cigarette use, tracheostomy dependence, and other chronic lung diseases); cardiovascular conditions (congenital heart disease, valvular heart disease, hypertension, and other cardiovascular disease); metabolic and endocrine conditions (dyslipidemia, obesity, thyroid disorder, type 1 diabetes, type 2 diabetes, and other endocrine disorders); gastrointestinal or hepatic conditions (Crohn's disease, feeding tube dependence, liver disease, malnutrition, ulcerative colitis, and other gastrointestinal disorders); and psychiatric conditions (anxiety, borderline personality disorder, depression, substance use disorder, and other psychiatric diagnoses).

**SUPPLEMENTAL TABLE 7** Characteristics of Patients Hospitalized for COVID-19 as the Primary Reason, by Age Group, 6 Hospitals, United States, July to August 2021, *N* = 494

	<1 Year <i>n</i> = 106	1–4 Years <i>n</i> = 69	5–11 Years <i>n</i> = 84	12–17 Years <i>n</i> = 202	18–20 Years <i>n</i> = 33
Admission diagnosis, <sup>a</sup> <i>n</i> (%)					
COVID-19	87 (82.1)	55 (79.7)	64 (76.2)	175 (86.6)	30 (90.9)
Pneumonia	8 (7.5)	24 (34.8)	38 (45.2)	97 (48.0)	15 (45.5)
COVID-19 pneumonia	6 (5.7)	22 (31.9)	33 (39.3)	90 (44.6)	15 (45.5)
Bronchiolitis	12 (11.3)	7 (10.1)	1 (1.2)	0	0
Neonatal fever	18 (17.0)	0	0	0	0
Initial vitals, <sup>b</sup> <i>n</i> (%)					
Febrile temperature	37 (34.9)	21 (30.4)	16 (19.0)	56 (27.7)	12 (36.4)
Tachycardic	21 (19.8)	23 (33.3)	36 (42.9)	95 (47.0)	22 (66.7)
Tachypneic	19 (17.9)	16 (23.2)	59 (70.2)	146 (72.3)	21 (63.6)
Chest radiograph performed, <i>n</i> (%)					
Any abnormality	59 (55.7)	60 (87.0)	74 (88.1)	191 (94.6)	33 (100)
Infiltrate or consolidation	40 (67.8)	50 (83.3)	63 (85.1)	174 (91.1)	27 (81.8)
Infiltrate or consolidation	18 (30.5)	27 (45.0)	41 (55.4)	138 (72.3)	21 (63.6)
Coinfections, <i>n</i> (%)					
Viral	16 (15.1)	19 (27.5)	2 (2.4)	2 (1.0)	0
RSV	9 (8.5)	10 (14.5)	1 (1.2)	1 (0.5)	0
Other <sup>c</sup>	10 (9.4)	9 (13.0)	2 (2.4)	1 (0.5)	0
Bacterial	8 (7.5)	14 (20.3)	21 (25.0)	32 (15.8)	10 (30.3)
Fungal	0	1 (1.4)	1 (1.2)	4 (2.0)	1 (3.0)
Hospital course					
Hospital duration, d, median (IQR)	2 (1–3)	3 (1–6)	3 (1–6)	5 (2–8)	6 (4–13)
IMV duration, d, median (IQR)	6.5 (3.5–9.5)	4.5 (2–6)	7 (4.5–13.5)	9.5 (4.5–19.5)	17 (7–29)
ICU requirement					
Any admission, <i>n</i> (%)	15 (14.2)	20 (29.0)	25 (29.8)	84 (41.6)	15 (45.5)
Duration, d, median (IQR)	3 (1, 6)	4 (2, 6)	5 (2, 8)	6 (4, 20)	6 (4, 20)
Treatments, <i>n</i> (%)					
Remdesivir	12 (11.3)	24 (34.8)	33 (39.3)	131 (64.9)	27 (81.8)
Baricitinib	0	0	1 (1.2)	8 (4.0)	1 (3.0)
Tocilizumab	1 (0.9)	1 (1.4)	4 (4.8)	20 (9.9)	3 (9.1)
Other monoclonal antibodies	0	0	1 (1.2)	4 (2.0)	2 (6.1)
Glucocorticoid	22 (20.8)	46 (66.7)	52 (61.9)	163 (80.7)	29 (87.9)
Dexamethasone	20 (18.9)	39 (56.5)	40 (47.6)	129 (63.9)	27 (81.8)
Antibiotic	61 (57.5)	40 (58.0)	62 (73.8)	125 (61.9)	24 (72.7)
Anticoagulation	5 (4.7)	9 (13.0)	22 (26.2)	137 (67.8)	25 (75.8)
Vasoactive support	3 (2.8)	2 (2.9)	4 (4.8)	19 (9.4)	5 (15.2)
Highest respiratory support, <i>n</i> (%)					
Nasal cannula	19 (17.9)	10 (14.5)	20 (23.8)	43 (21.3)	12 (36.4)
HFNC	19 (17.9)	23 (33.3)	12 (14.3)	51 (25.2)	6 (18.2)
BiPAP or CPAP	3 (2.8)	8 (11.6)	10 (11.9)	41 (20.3)	7 (21.2)
IMV	4 (3.8)	6 (8.7)	8 (9.5)	24 (11.9)	6 (18.2)
ECMO <sup>d</sup>	1 (0.9)	1 (1.4)	0	4 (2.0)	2 (6.1)
Discharge diagnosis, <sup>a</sup> <i>n</i> (%)					
COVID-19	101 (95.3)	65 (94.2)	79 (94.0)	193 (95.5)	32 (97.0)
Pneumonia	9 (8.5)	26 (37.7)	34 (40.5)	102 (50.5)	11 (33.3)
COVID-19 pneumonia	8 (7.5)	26 (37.7)	34 (40.5)	102 (50.5)	11 (33.3)

SUPPLEMENTAL TABLE 7 Continued

	<1 Year <i>n</i> = 106	1–4 Years <i>n</i> = 69	5–11 Years <i>n</i> = 84	12–17 Years <i>n</i> = 202	18–20 Years <i>n</i> = 33
Acute respiratory failure	13 (12.3)	18 (26.1)	20 (23.8)	70 (34.7)	15 (45.5)
Neonatal fever	22 (20.8)	NA	NA	NA	NA
Outcome, <i>n</i> (%)					
Discharged on oxygen <sup>e</sup>	2 (1.9)	7 (10.1)	5 (6.0)	12 (5.9)	2 (6.1)
New mobility restriction	0	0	2 (2.4)	6 (3.0)	2 (6.1)
Died	2 (1.9)	0	0	7 (3.5)	0

ECMO, extracorporeal membrane oxygenation; NA, not applicable.

<sup>a</sup> List is not exhaustive but includes the top 3 diagnoses for each age category.

<sup>b</sup> Febrile temperature is defined as body temperature  $\geq 38^{\circ}\text{C}$  for all ages. Tachycardia and tachypnea abnormal ranges are age-normalized.

<sup>c</sup> Includes adenovirus, human coronavirus 229E, human coronavirus HKU1, human coronavirus NL63, human coronavirus OC43, human metapneumovirus, influenza virus, parainfluenza virus, and rhinovirus/enterovirus.

<sup>d</sup> Patients receiving IMV include those receiving ECMO.

<sup>e</sup> Includes 7 patients noted to have chronic respiratory failure before hospitalization.

**SUPPLEMENTAL TABLE 8** Characteristics of Patients Hospitalized for COVID-19 as a Contributing Reason, by Age Group, 6 Hospitals, United States, July to August 2021, *N* = 265

	<1 Year <i>n</i> = 70	1–4 Years <i>n</i> = 53	5–11 Years <i>n</i> = 59	12–17 Years <i>n</i> = 70	18–20 Years <i>n</i> = 13
Admission diagnosis, <sup>a</sup> <i>n</i> (%)					
COVID-19	44 (62.9)	31 (58.5)	39 (66.1)	41 (58.6)	8 (61.5)
Bronchiolitis	25 (35.7)	9 (17.0)	0	0	0
RSV	21 (30.0)	9 (17.0)	2 (3.4)	0	0
Diabetic ketoacidosis	0	1 (1.9)	6 (10.2)	20 (28.6)	3 (23.1)
Seizure disorder	2 (2.9)	4 (7.5)	6 (10.2)	2 (2.9)	0
Sickle cell pain crisis	0	2 (3.8)	1 (1.7)	5 (7.1)	3 (23.1)
Initial vitals, <sup>b</sup> <i>n</i> (%)					
Febrile temperature	21 (30.0)	16 (30.2)	9 (15.3)	14 (20.0)	3 (23.1)
Tachycardic	8 (11.4)	19 (35.8)	19 (32.2)	33 (47.1)	6 (46.2)
Tachypneic	17 (24.3)	15 (28.3)	33 (55.9)	30 (42.9)	4 (30.8)
Chest radiograph performed, <i>n</i> (%)					
Any abnormality	44 (62.9)	30 (56.6)	32 (54.2)	41 (58.6)	9 (69.2)
Infiltrate/consolidation	38 (86.4)	16 (53.3)	21 (65.6)	22 (53.7)	6 (66.7)
Infiltrate/consolidation	18 (40.9)	11 (36.7)	11 (34.4)	9 (22.0)	5 (55.6)
Coinfections, <i>n</i> (%)					
Viral	41 (58.6)	25 (47.2)	4 (6.8)	4 (5.7)	0
RSV	33 (47.1)	16 (30.2)	3 (5.1)	2 (2.9)	0
Other <sup>c</sup>	12 (17.1)	14 (26.4)	1 (1.7)	2 (2.9)	0
Bacterial	15 (21.4)	13 (24.5)	9 (15.3)	11 (15.7)	4 (30.8)
Fungal	0	0	0	1 (1.4)	0
Hospital course, <i>n</i> (%)					
Hospital duration, d, median (IQR)	2 (2, 6)	3 (2, 4)	2 (1, 3)	3 (1, 5)	3 (2, 7)
IMV duration, d, median (IQR)	5.5 (4.5–14)	16 (16–16)	0.5 (0–1)	14 (5–23)	NA
ICU requirement					
Any admission, <i>n</i> (%)	19 (27.1)	11 (20.8)	12 (20.3)	24 (34.3)	2 (15.4)
Duration, d, median (IQR)	4 (1–10)	2 (1–3)	1 (1–1)	1 (1–2)	3.5 (2–5)
Treatments, <i>n</i> (%)					
Remdesivir	10 (14.3)	6 (11.3)	3 (5.1)	8 (11.4)	2 (15.4)
Baricitinib	0	0	0	0	0
Tocilizumab	1 (1.4)	0	0	1 (1.4)	1 (7.7)
Other monoclonal antibodies	0	0	0	7 (10.0)	3 (23.1)
Glucocorticoid	19 (27.1)	18 (34.0)	18 (30.5)	23 (32.9)	4 (30.8)
Antibiotic	36 (51.4)	29 (54.7)	29 (49.2)	29 (41.4)	8 (61.5)
Anticoagulation	4 (5.7)	2 (3.8)	5 (8.5)	24 (34.3)	5 (38.5)
Vasoactive support	3 (4.3)	0	1 (1.7)	2 (2.9)	0
Highest respiratory support, <i>n</i> (%)					
Nasal cannula	3 (4.3)	4 (7.5)	4 (6.8)	8 (11.4)	3 (23.1)
HFNC	24 (34.3)	9 (17.0)	2 (3.4)	2 (2.9)	1 (7.7)
BiPAP or CPAP	2 (2.9)	2 (3.8)	1 (1.7)	2 (2.9)	0
IMV	8 (11.4)	1 (1.9)	3 (5.1)	2 (2.9)	0
ECMO <sup>d</sup>	0	0	1 (1.7)	1 (1.4)	0
Discharge diagnosis, <sup>a</sup> <i>n</i> (%)					
COVID-19	58 (82.9)	43 (81.1)	42 (71.2)	51 (72.9)	10 (76.9)
RSV	32 (45.7)	14 (26.4)	0	1 (1.4)	0
Bronchiolitis	28 (40.0)	11 (20.8)	0	0	0

SUPPLEMENTAL TABLE 8 Continued

	<1 Year <i>n</i> = 70	1–4 Years <i>n</i> = 53	5–11 Years <i>n</i> = 59	12–17 Years <i>n</i> = 70	18–20 Years <i>n</i> = 13
Pneumonia	7 (10.0)	10 (18.9)	5 (8.5)	6 (8.6)	2 (15.4)
Diabetic ketoacidosis	0	1 (1.9)	6 (10.2)	19 (27.1)	1 (7.7)
Seizure disorder	4 (5.7)	3 (5.7)	6 (10.2)	1 (1.4)	0
Urinary tract infection	2 (2.9)	2 (3.8)	2 (3.4)	2 (2.9)	3 (23.1)
Outcome, <i>n</i> (%)					
Discharged on oxygen <sup>e</sup>	2 (2.9)	1 (1.9)	2 (3.4)	0	0
New mobility restriction	0	0	1 (1.7)	0	0
Died	0	0	1 (1.7)	1 (1.4)	0

ECMO, extracorporeal membrane oxygenation; NA, not applicable.

<sup>a</sup> List is not exhaustive but includes the top 3 diagnoses for each age category.

<sup>b</sup> Febrile temperature is defined as body temperature  $\geq 38^{\circ}\text{C}$  for all ages. Tachycardia and tachypnea abnormal ranges are age-normalized.

<sup>c</sup> Includes adenovirus, human coronavirus 229E, human coronavirus HKU1, human coronavirus NL63, human coronavirus OC43, human metapneumovirus, influenza virus, parainfluenza virus, and rhinovirus or enterovirus.

<sup>d</sup> Patients receiving IMV include those receiving ECMO.

<sup>e</sup> Includes 2 patients noted to have chronic respiratory failure before hospitalization.

**SUPPLEMENTAL TABLE 9** Characteristics of Patients Hospitalized With an Incidental Positive SARS-CoV-2 Test, by Age Group, 6 Hospitals, United States, July to August 2021, *N* = 188

	<1 Year <i>n</i> = 29	1–4 Years <i>n</i> = 36	5–11 Years <i>n</i> = 47	12–17 Years <i>n</i> = 65	18–20 Years <i>n</i> = 11
Male sex, <i>n</i> (%)	16 (55.2)	20 (55.6)	24 (51.1)	30 (46.2)	5 (45.5)
Race and ethnicity, <i>n</i> (%)					
White, non-Hispanic	11 (37.9)	9 (25.0)	11 (23.4)	28 (43.1)	7 (63.6)
Black, non-Hispanic	6 (20.7)	13 (36.1)	17 (36.2)	12 (18.5)	2 (18.2)
Hispanic	9 (31.0)	8 (22.2)	16 (34.0)	19 (29.2)	0
Other or unknown	3 (10.3)	6 (16.7)	3 (6.4)	6 (9.2)	2 (18.2)
Underlying medical conditions, <sup>a</sup> <i>n</i> (%)					
0	15 (51.7)	22 (61.1)	22 (46.8)	20 (30.8)	3 (27.3)
1	10 (34.5)	7 (19.4)	12 (25.5)	27 (41.5)	3 (27.3)
2 or more	4 (13.8)	7 (19.4)	13 (27.7)	18 (27.7)	5 (45.5)
Condition, <sup>b</sup> <i>n</i> (%)					
Obesity	0	6 (16.7)	9 (19.1)	14 (21.5)	0
Depression	0	0	1 (2.1)	17 (26.2)	2 (18.2)
Asthma or reactive airway disease	0	2 (5.6)	7 (14.9)	6 (9.2)	0
Anxiety disorder	0	0	0	12 (18.5)	2 (18.2)
Neurologic or neurodevelopmental disorder	1 (3.4)	2 (5.6)	3 (6.4)	3 (4.6)	3 (27.3)
Other gastrointestinal disorder	3 (10.3)	2 (5.6)	1 (2.1)	4 (6.2)	1 (9.1)
Congenital heart disease	4 (13.8)	1 (2.8)	0	5 (7.7)	0
Cancer chemotherapy in past year	0	3 (8.3)	2 (4.3)	2 (3.1)	0
Preterm birth	6 (20.7)	1 (2.8)	0	0	0
Admission diagnosis, <sup>b</sup> <i>n</i> (%)					
Appendicitis	0	2 (5.6)	11 (23.4)	9 (13.8)	1 (9.1)
Overdose	1 (3.4)	1 (2.8)	1 (2.1)	9 (13.8)	1 (9.1)
Trauma	2 (6.9)	3 (8.3)	3 (6.4)	5 (7.7)	0
Suicide attempt	0	0	0	10 (15.4)	2 (18.2)
Seizure disorder	3 (10.3)	5 (13.9)	2 (4.3)	0	0
Urinary tract infection	0	1 (2.8)	4 (8.5)	1 (1.5)	1 (9.1)
Cellulitis	0	4 (11.1)	2 (4.3)	0	0
Leukemia	0	1 (2.8)	4 (8.5)	0	0
Bite	0	1 (2.8)	2 (4.3)	1 (1.5)	0
Fracture	0	1 (2.8)	2 (4.3)	0	0
Bronchiolitis	2 (6.9)	1 (2.8)	0	0	0
Initial vitals, <sup>c</sup> <i>n</i> (%)					
Febrile temperature	1 (3.4)	5 (13.9)	6 (12.8)	2 (3.1)	0
Tachycardic	2 (6.9)	7 (19.4)	14 (29.8)	11 (16.9)	4 (36.4)
Tachypneic	2 (6.9)	4 (11.1)	17 (36.2)	12 (18.5)	2 (18.2)
Chest x-ray performed, <i>n</i> (%)					
Any abnormality	4 (40.0)	8 (66.7)	1 (25.0)	3 (25.0)	1 (50.0)
Infiltrate or consolidation	0	3 (25.0)	0	1 (8.3)	0
Coinfections, <i>n</i> (%)					
Viral	2 (6.9)	5 (13.9)	0	0	0
RSV	1 (3.4)	1 (2.8)	0	0	0
Other <sup>d</sup>	2 (6.9)	4 (11.1)	0	0	0
Bacterial	6 (20.7)	13 (36.1)	6 (12.8)	6 (9.2)	1 (9.1)

SUPPLEMENTAL TABLE 9 Continued

	<1 Year <i>n</i> = 29	1–4 Years <i>n</i> = 36	5–11 Years <i>n</i> = 47	12–17 Years <i>n</i> = 65	18–20 Years <i>n</i> = 11
Hospital course					
Hospital duration, d, median (IQR)	2 (1–10)	3 (1–5)	2 (1–4)	3 (1–6)	2 (2–3)
IMV duration, d, median (IQR)	26 (24–28)	1 (1–5)	1 (1–1)	1 (1–3)	NA
ICU requirement					
Any admission, <i>n</i> (%)	6 (20.7)	5 (13.9)	3 (6.4)	9 (13.8)	2 (18.2)
Duration, d, median (IQR)	29.5 (4–53)	13 (8–24)	1 (1–1)	1 (1–7)	4 (1–7)
Highest respiratory support, <i>n</i> (%)					
Nasal cannula	2 (6.9)	1 (2.8)	1 (2.1)	3 (4.6)	0
HFNC	1 (3.4)	1 (2.8)	0	0	0
BiPAP or CPAP	0	1 (2.8)	0	0	0
IMV	3 (10.3)	3 (8.3)	1 (2.1)	3 (4.6)	0
Discharge diagnosis, <sup>b</sup> <i>n</i> (%)					
Appendicitis	0	2 (5.6)	9 (19.1)	9 (13.8)	1 (9.1)
Abscess	0	3 (8.3)	5 (10.6)	6 (9.2)	1 (9.1)
Trauma	2 (6.9)	4 (11.1)	3 (6.4)	6 (9.2)	0
Suicide attempt	0	0	0	11 (16.9)	2 (18.2)
Seizure disorder	2 (6.9)	2 (5.6)	1 (2.1)	0	1 (9.1)
Cellulitis	0	4 (11.1)	2 (4.3)	0	0
Acute respiratory failure	2 (6.9)	2 (5.6)	0	0	0
Died, <i>n</i> (%)	0	0	0	0	0

<sup>a</sup> Defined by the following groups: neurologic and developmental conditions (attention deficit hyperactivity disorder, autism spectrum disorder, cerebral palsy, cognitive dysfunction, muscular dystrophy, neural tube defect or spina bifida, neurologic/neurodevelopmental disorder, neuropathy, plegias or paralysis, pre-term birth [for children aged <2 y only], seizure disorder, and wheelchair/walker-dependence or bed-bound status); respiratory conditions (active tuberculosis, asthma or reactive airway disease, chronic hypoxemic respiratory failure with oxygen or ventilator dependence, cystic fibrosis, current smoking or e-cigarette use, tracheostomy dependence, and other chronic lung diseases); cardiovascular conditions (congenital heart disease, valvular heart disease, hypertension, and other cardiovascular disease); metabolic and endocrine conditions (dyslipidemia, obesity, thyroid disorder, type 1 diabetes, type 2 diabetes, and other endocrine disorders); gastrointestinal or hepatic conditions (Crohn's disease, feeding tube dependence, liver disease, malnutrition, ulcerative colitis, and other gastrointestinal disorders); and psychiatric conditions (anxiety, borderline personality disorder, depression, substance use disorder, and other psychiatric diagnoses).

<sup>b</sup> List is not exhaustive but includes the top 3 diagnoses for each age category. Admission and discharge diagnoses of SARS-CoV-2 or COVID-19 are not shown here, as these patients were all determined to be hospitalized for a reason that was unrelated to COVID-19, based on abstractor review of provider documentation.

<sup>c</sup> Febrile temperature is defined as body temperature  $\geq 38^{\circ}\text{C}$  for all ages. Tachycardia and tachypnea abnormal ranges are age-normalized.

<sup>d</sup> Includes adenovirus, human coronavirus 229E, human coronavirus HKU1, human coronavirus NL63, human coronavirus OC43, human metapneumovirus, influenza virus, parainfluenza virus, and rhinovirus/enterovirus.



**SUPPLEMENTAL TABLE 10** Characteristics of Patients Aged <1 Year Hospitalized for COVID-19, 6 Hospitals, United States, July to August 2021, *N* = 176

	Neonates (Aged <1 mo) <i>n</i> = 58	Nonneonate Infants (Aged 1–12 mo) <i>n</i> = 118	All Infants (Aged <12 mo) <i>n</i> = 176
Admission diagnosis <sup>a</sup> <i>n</i> (%)			
COVID-19	47 (81.0)	84 (71.2)	131 (74.4)
Bronchiolitis	3 (5.2)	34 (28.8)	37 (21.0)
RSV	3 (5.2)	23 (19.5)	26 (14.8)
Neonatal fever	16 (27.6)	5 (4.2)	21 (11.9)
Coinfections, <i>n</i> (%)			
Viral	6 (10.3)	51 (43.2)	57 (32.4)
RSV	5 (8.6)	37 (31.4)	42 (23.9)
Other <sup>b</sup>	1 (1.7)	21 (17.8)	22 (12.5)
Bacterial	5 (8.6)	18 (15.3)	23 (13.1)
Underlying medical conditions, <sup>c</sup> <i>n</i> (%)			
0	52 (89.7)	72 (61.0)	124 (70.5)
1	6 (10.3)	31 (26.3)	37 (21.0)
2 or more	0	15 (12.7)	15 (8.5)
Condition, <sup>a</sup> <i>n</i> (%)			
Prematurity	6 (10.3)	31 (26.3)	37 (21.0)
Feeding tube dependent	0	7 (5.9)	7 (4.0)
Congenital heart disease	0	6 (5.1)	6 (3.4)
Other gastrointestinal disorder	0	6 (5.1)	6 (3.4)
Seizure disorder	0	6 (5.1)	6 (3.4)
ICU requirement			
Any admission, <i>n</i> (%)	8 (13.8)	26 (22.0)	34 (19.3)
Duration, d, median (IQR)	2 (1, 5)	4 (1, 9)	4 (2, 8)
Treatments, <i>n</i> (%)			
Remdesivir	3 (5.2)	19 (16.1)	22 (12.5)
Tocilizumab	1 (1.7)	1 (0.8)	2 (1.1)
Glucocorticoid	4 (6.9)	37 (31.4)	41 (23.3)
Dexamethasone	3 (5.2)	33 (28.0)	36 (20.5)
Antibiotic	43 (74.1)	54 (45.8)	97 (55.1)
Anticoagulation	2 (3.4)	7 (5.9)	9 (5.1)
Vasoactive support	1 (1.7)	5 (4.2)	6 (3.4)
Highest respiratory support, <i>n</i> (%)			
Nasal cannula	6 (10.3)	16 (13.6)	22 (12.5)
HFNC	5 (8.6)	38 (32.2)	43 (24.4)
BiPAP or CPAP	0	5 (4.2)	5 (2.8)
IMV	2 (3.4)	10 (8.5)	12 (6.8)

**SUPPLEMENTAL TABLE 10** Continued

	Neonates (Aged <1 mo) <i>n</i> = 58	Nonneonate Infants (Aged 1–12 mo) <i>n</i> = 118	All Infants (Aged <12 mo) <i>n</i> = 176
Discharge diagnosis, <sup>a</sup> <i>n</i> (%)			
COVID-19	53 (91.4)	106 (89.8)	159 (90.3)
Bronchiolitis	4 (6.9)	36 (30.5)	40 (22.7)
RSV	4 (6.9)	35 (29.7)	39 (22.2)
Neonatal fever	24 (41.4)	4 (3.4)	28 (15.9)
Died, <i>n</i> (%)	1 (1.7)	1 (0.8)	2 (1.1)

<sup>a</sup> List is not exhaustive.

<sup>b</sup> Includes adenovirus, human coronavirus 229E, human coronavirus HKU1, human coronavirus NL63, human coronavirus OC43, human metapneumovirus, influenza virus, parainfluenza virus, and rhinovirus or enterovirus.

<sup>c</sup> Defined by the following groups: neurologic and developmental conditions (attention deficit hyperactivity disorder, autism spectrum disorder, cerebral palsy, cognitive dysfunction, muscular dystrophy, neural tube defect or spina bifida, neurologic or neurodevelopmental disorder, neuropathy, plegias or paralysis, preterm birth [for children aged <2 y only], seizure disorder, and wheelchair or walker-dependence or bed-bound status); respiratory conditions (active tuberculosis, asthma or reactive airway disease, chronic hypoxemic respiratory failure with oxygen or ventilator dependence, cystic fibrosis, current smoking or e-cigarette use, tracheostomy dependence, and other chronic lung diseases); cardiovascular conditions (congenital heart disease, valvular heart disease, hypertension, and other cardiovascular disease); metabolic and endocrine conditions (dyslipidemia, obesity, thyroid disorder, type 1 diabetes, type 2 diabetes, and other endocrine disorders); gastrointestinal or hepatic conditions (Crohn's disease, feeding tube dependence, liver disease, malnutrition, ulcerative colitis, and other gastrointestinal disorders); and psychiatric conditions (anxiety, borderline personality disorder, depression, substance use disorder, and other psychiatric diagnoses).

**SUPPLEMENTAL TABLE 11** Characteristics of Patients Aged  $\geq 2$  Years Hospitalized for COVID-19, by Obesity Status, 6 Hospitals, United States, July to August 2021,  $N = 531$ 

	Without Obesity $n = 271$	With Obesity $n = 260$	$P^a$
Male sex, $n$ (%)	146 (53.9)	127 (48.8)	.247
Age group, years, $n$ (%)			
2–4	56 (20.7)	15 (5.8)	<.001
5–11	95 (35.1)	47 (18.1)	
12–17	105 (38.7)	167 (64.2)	
18–20	15 (5.5)	31 (11.9)	
Race and ethnicity, $n$ (%)			
White, non-Hispanic	78 (28.8)	75 (28.8)	.384
Black, non-Hispanic	90 (33.2)	72 (27.7)	
Hispanic	73 (26.9)	86 (33.1)	
Other/unknown	30 (11.1)	27 (10.4)	
Admission diagnosis, <sup>b</sup> $n$ (%)			
COVID-19	186 (68.6)	215 (82.7)	<.001
Pneumonia	53 (19.6)	118 (45.4)	<.001
COVID-19 Pneumonia	45 (16.6)	111 (42.7)	<.001
Initial vitals, <sup>c</sup> $n$ (%)			
Febrile temperature	67 (24.7)	64 (24.6)	.977
Tachycardic	102 (37.6)	133 (51.2)	<.001
Tachypneic	130 (48.0)	175 (67.3)	<.001
Chest radiograph performed, $n$ (%)			
Any abnormality	137 (50.6)	211 (81.2)	<.001
Infiltrate or consolidation	81 (29.9)	162 (62.3)	<.001
Coinfections, $n$ (%)			
Viral	22 (8.1)	6 (2.3)	<.001
RSV	13 (4.8)	1 (0.4)	<.001
Other <sup>d</sup>	10 (3.7)	5 (1.9)	.219
Bacterial	49 (18.1)	52 (20.0)	.573
Fungal	3 (1.1)	4 (1.5)	.538
Underlying medical conditions, <sup>e</sup> $n$ (%)			
No other underlying conditions	81 (29.9)	102 (39.2)	<.001
Other underlying conditions	190 (70.1)	158 (60.8)	
Condition, <sup>b</sup> $n$ (%)			
Asthma	50 (18.5)	71 (27.3)	.015
Neurologic or neurodevelopmental disorder	44 (16.2)	15 (5.8)	<.001
Feeding tube dependent	40 (14.8)	7 (2.7)	<.001
ADHD	11 (4.1)	18 (6.9)	.147
Hospital course			
Hospital duration, d, median (IQR)	2 (1, 5)	4.5 (2, 8)	<.001
IMV duration, d, median (IQR)	6 (1, 11)	9.5 (5.5, 21)	.205
ICU requirement			
Any admission, $n$ (%)	71 (26.2)	108 (41.5)	<.001
Duration, d, median (IQR)	2 (1, 7)	5 (2, 9)	<.001
Treatments, $n$ (%)			
Remdesivir	68 (25.1)	155 (59.6)	<.001

SUPPLEMENTAL TABLE 11 Continued

	Without Obesity <i>n</i> = 271	With Obesity <i>n</i> = 260	<i>P</i> <sup>a</sup>
Baricitinib	1 (0.4)	9 (3.5)	.009
Tocilizumab	5 (1.8)	25 (9.6)	<.001
Other monoclonal antibodies	11 (4.1)	6 (2.3)	.252
Glucocorticoid	116 (42.8)	210 (80.8)	<.001
Dexamethasone	85 (31.4)	167 (64.2)	<.001
Antibiotic	148 (54.6)	171 (65.8)	.009
Anticoagulation	59 (21.8)	165 (63.5)	<.001
Vasoactive support	10 (3.7)	22 (8.5)	.028
Highest respiratory support, <i>n</i> (%)			
Nasal cannula	41 (15.1)	56 (21.5)	<.001
HFNC	26 (9.6)	61 (23.5)	
BiPAP or CPAP	19 (7.0)	48 (18.5)	
IMV	18 (6.6)	28 (10.8)	
ECMO <sup>f</sup>	1 (0.4)	7 (2.7)	
Laboratories, <sup>g</sup> median (IQR)			
WBC on admission, 10 <sup>9</sup> /L	6.6 (1.4, 49.5)	5.2 (0.7, 24.4)	<.001
WBC at peak, 10 <sup>9</sup> /L	7.6 (5.3, 13.2)	6.9 (4.8, 10.2)	.083
CRP on admission, mg/L	24.0 (6.0, 61.0)	37.0 (15.0, 72.0)	<.001
CRP at peak, mg/L	31.8 (8.0, 78.5)	40.5 (17.0, 77.0)	.149
Ferritin on admission, ng/mL	111 (59, 252)	285 (154, 563)	<.001
Ferritin at peak, ng/mL	136 (66, 283)	294 (156, 572)	<.001
Procalcitonin on admission, ng/mL	0.2 (0.1, 1.1)	0.1 (0.1, 0.3)	.015
Procalcitonin at peak, ng/mL	0.2 (0.1, 2.2)	0.1 (0.1, 0.3)	.007
D-dimer on admission, mg FEU/L	0.9 (0.4, 1.8)	0.9 (0.6, 1.6)	.276
D-dimer at peak, mg FEU/L	1.0 (0.4, 2.1)	1.0 (0.6, 1.9)	.325
Discharge diagnosis, <sup>b</sup> <i>n</i> (%)			
COVID-19	229 (84.5)	240 (92.3)	.005
Pneumonia	69 (25.5)	121 (46.5)	<.001
COVID-19 pneumonia	63 (23.2)	116 (44.6)	<.001
Died, <i>n</i> (%)	5 (1.8)	4 (1.5)	.784

ADHD, attention deficit hyperactivity disorder; ECMO, extracorporeal membrane oxygenation.

<sup>a</sup> The Mann–Whitney *U* test was used to compare hospital duration, admission to IMV time, IMV duration, ICU duration, and all laboratory values. The  $\chi^2$  test was used to compare all other variables. All statistical tests are 2-sided and an  $\alpha$  value of .05 was considered significant.

<sup>b</sup> List is not exhaustive.

<sup>c</sup> Abnormal range is age-normalized.

<sup>d</sup> Includes adenovirus, human coronavirus 229E, human coronavirus HKU1, human coronavirus NL63, human coronavirus OC43, human metapneumovirus, influenza virus, parainfluenza virus, and rhinovirus/enterovirus.

<sup>e</sup> Excepting obesity. Defined by the following groups: neurologic and developmental conditions (attention deficit hyperactivity disorder, autism spectrum disorder, cerebral palsy, cognitive dysfunction, muscular dystrophy, neural tube defect or spina bifida, neurologic or neurodevelopmental disorder, neuropathy, plegias or paralysis, preterm birth [for children aged <2 y only], seizure disorder, and wheelchair or walker-dependence or bed-bound status); respiratory conditions (active tuberculosis, asthma or reactive airway disease, chronic hypoxemic respiratory failure with oxygen or ventilator dependence, cystic fibrosis, current smoking or e-cigarette use, tracheostomy dependence, and other chronic lung diseases); cardiovascular conditions (congenital heart disease, valvular heart disease, hypertension, and other cardiovascular disease); metabolic and endocrine conditions (dyslipidemia, thyroid disorder, type 1 diabetes, type 2 diabetes, and other endocrine disorders); gastrointestinal or hepatic conditions (Crohn's disease, feeding tube dependence, liver disease, malnutrition, ulcerative colitis, and other gastrointestinal disorders); and psychiatric conditions (anxiety, borderline personality disorder, depression, substance use disorder, and other psychiatric diagnoses).

<sup>f</sup> Patients receiving IMV include those receiving ECMO.

<sup>g</sup> Normal age- and sex-specific values were referenced from the Harriet Lane Handbook.<sup>25</sup> Greater-than and less-than signs were analyzed as if they were equal signs.