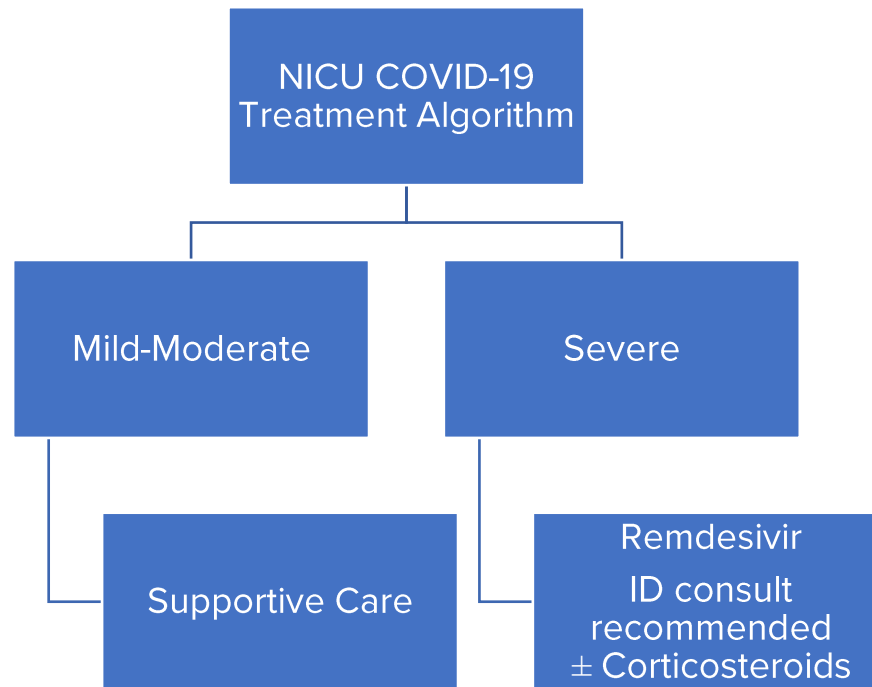


AdventHealth for Children NICU COVID19 Treatment Algorithm



Common clinical characteristics

- Temperature instability
- Lethargy
- Poor feeding
- Mild respiratory symptoms such as increased work of breathing and cough
- Pneumonia with history of possible COVID 19 exposure
- Increased oxygen requirement
- Apnea

Criteria for diagnosis (must meet all criteria)²

- At least one clinical symptom (unstable body temperature, lethargic/poor feeding, SOB)
- CXR with unilateral or bilateral milled glass opacities or CT with unilateral or bilateral milled glass opacities
- COVID 19 diagnosis in patient's family or caregiver
- Close contact with people who may have or have confirmed COVID19; patients with unexplained PNA

Mild-Moderate Criteria

No respiratory support or Non-invasive mode of support < 40% FiO₂ (CPAP, NIPPV)

Severe/Critical Criteria

Non-invasive mode of support requiring > 40% FiO₂

Invasive ventilatory support (conventional or high-frequency ventilation)

Inotropic support

AdventHealth for Children NICU COVID19 Treatment Algorithm

Clinical Assessment	Treatment for Hospitalized Patients	Duration of treatment*
Mild to Moderate	<ul style="list-style-type: none"> Supportive care only – If clinically stable, consider discharge for quarantine. Discharged patients should be offered supportive care (anti-pyretics, MDIs, etc) 	N/A
Severe to Critical	<ul style="list-style-type: none"> If eligible: remdesivir (FDA-approved, ID consult preferred) If ineligible for remdesivir: supportive care and ID consult 	Not requiring invasive mechanical ventilation and/or ECMO: 5 days* Requires invasive mechanical ventilation and/or ECMO: 10 days

*May consider an additional 5 days of treatment (10 days total), if no clinical improvement.

Drug	Dosing	Formulations	Monitoring	Adverse Effects	Notes
Remdesivir FDA approved (weight ≥ 3 kg AND PNA ≥ 28 days) Off-label use in patients < 3 kg or PNA < 28 days	<ul style="list-style-type: none"> Should be requested by ID Weight ≥ 3 kg AND PNA ≥ 28 days** <ul style="list-style-type: none"> Loading dose: 5 mg/kg/dose Maintenance dose: 2.5 mg/kg/dose IV daily Weight 2-2.999 kg or PNA < 28 days** <ul style="list-style-type: none"> Loading dose: 2.5 mg/kg/dose Maintenance dose: 1.25 mg/kg/dose IV Daily **Consider decreasing dose by 50% if on CVVH or hemodialysis	IV infusion	<ul style="list-style-type: none"> CMP Daily CBC with differential PT/INR Daily If possible CoV PCR Physical and vital signs at least daily	<ul style="list-style-type: none"> Transient elevations in ALT and AST Dose-dependent, reversible kidney injury and dysfunction ● Prolonged QT interval 	See inclusion/exclusion criteria below. Contact pharmacy to initiate request. Do not use if baseline eGFR is < 30 mL/min (PNA > 28 days) or serum creatinine is > 1 mg/dL (PNA 7-28 days).
Dexamethasone For PMA ≥ 36 weeks	<ul style="list-style-type: none"> 0.15 mg/kg/dose (Max 0.5 mg/kg/dose) daily x up to 10 days* *May consider wean if duration > 3 days	IV/NG	<ul style="list-style-type: none"> BMP Blood pressure CBC w/ differential 	<ul style="list-style-type: none"> Hypertension Hyperglycemia 	May consider if escalating oxygen needs
Hydrocortisone For PMA < 36 weeks	<ul style="list-style-type: none"> 0.5 mg/kg q12h x 7 days, then 0.5 mg/kg daily x 3 days 	IV/NG	<ul style="list-style-type: none"> BMP Blood pressure CBC w/ differential 	<ul style="list-style-type: none"> Hypertension Hyperglycemia 	

All patients should receive supportive care (IV fluids, anti-pyretics, etc.).

- Nebulized respiratory medications for patients:**
 - Nebulized respiratory medications should be avoided in non-intubated patients unless otherwise indicated in patients with bronchospasms to further prevent the spread of the COVID-19 if indicated, inhalers (MDIs) with spacers are preferred for non-intubated patients
 - If indicated, nebulized medications with a closed circuit may be used in intubated patients
 - For COVID-19 negative non-intubated patients, nebulized respiratory medications are preferred over MDIs

PNA = Post-natal age; PMA = Post-menstrual age

AdventHealth for Children NICU COVID19 Treatment Algorithm

Recommendations for baseline laboratory testing before starting remdesivir

Baseline laboratory testing needed
<ul style="list-style-type: none">• Neo-19<ul style="list-style-type: none">○ Liver function test○ Serum creatinine• PTT/INR

Discontinue remdesivir if:
<ul style="list-style-type: none">• Signs/symptoms of infusion-related/anaphylactic reactions<ul style="list-style-type: none">○ CV: Hypotension, hypertension, tachycardia, bradycardia○ Resp: Hypoxia, dyspnea, wheezing○ Other: Fever, angioedema, rash, nausea, diaphoresis, shivering• ALT > 10x upper limit of normal• ALT elevation + signs/symptoms of liver inflammation

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Summary of Revisions

- 6/10/2021
 - Changed ID consult required to recommended when ordering remdesivir
 - Common clinical characteristics – added apnea
 - Changed remdesivir from compassionate use to EUA
 - Added Duration of treatment pending on mechanical ventilation/ECMO status
 - Remdesivir
 - Changed remdesivir dosing based on weight and post-natal age
 - Modified age range cut-off for pediatric use
 - Included dosing recommendation for CVVH or hemodialysis
 - Omitted urinalysis from remdesivir monitoring
 - Updated inclusion/exclusion criteria
 - Included baseline laboratory testing required
 - Added criteria to consider discontinuation of remdesivir
 - Removed procuring/turnaround time for initiating remdesivir treatment.
 - Corticosteroids - added dexamethasone/hydrocortisone with comments on place in therapy
 - Hydroxychloroquine – removed as recommended therapy
- 11/16/22
 - Remdesivir
 - FDA approved for weight ≥ 3 kg AND PNA ≥ 28 days
 - Decreased weight cut-off
 - Increased PNA cut-off
 - Added Prolonged QT interval
 - Changed corticosteroid selection by PMA cut-off
 - Removed EUA information
 - Revised wording for Gilead baseline laboratory testing