Acute COVID 19 Management
Emergency Department

Inclusion criteria:
Symptomatic patients with positive testing for SARS CoV-2 (home or lab)

Requires inpatient care?

Age ≥ 28 days & Weight ≥ 3 kg & High Risk Condition & ≤6 days of symptom onset?

Consider patient eligibility for Outpatient COVID therapies:
- Paxlovid or other novel therapies have emergency use authorization
- May prevent hospitalization

Discharge for supportive care at home

ED work-up:
- Blood cx, CBC, CMP, CRP, procalcitonin, fibrinogen (for patients with a high-risk condition and/or requiring HFNC, NIPPV or mechanical ventilation)
- CXR (for those with respiratory symptoms and/or high risk condition or persistent tachycardia despite IVF)
- FARVPP (do not need to wait for results)

Care as indicated:
- Judicious IVF
- Antibiotics per NCH standards of care
- Oxygen and respiratory support as indicated

Requires supplemental oxygen/respiratory support OR has signs of shock/organ failure?

Supportive care and meds† per inpatient team

If there will be delay in admission, call ID Fellow to discuss time sensitive medications†

Admit to ID, PICU or subspecialty service as indicated

†Meds may include:
- Dexamethasone
  0.15 mg/kg/dose (IV or PO), max 6 mg
- Remdesivir:
  - < 3.5 kg per ID recs
  - 3.5–<40 kg 5 mg/kg IV loading dose (max 200 mg)
  - ≥ 40 kg 200 mg IV loading dose

Family wants to proceed with treatment?

Call PCTC to connect to ID attending to decide on specific therapy
(if eligible for Paxlovid can prescribe without calling PCTC)
Nurse practitioner or pharmacist will contact family to discuss therapies

ED Clinician:
- Inform family that a pharmacist or nurse practitioner will call to discuss treatment
- Ensure accurate phone number in Epic

No

Yes

No

Yes
Inclusion criteria:
- Symptomatic patients with positive testing for SARS CoV-2 (home or lab)

Exclusion Criteria:
- Asymptomatic patients with SARS CoV-2
- Patients with illness not related to SARS CoV-2
- Neonates
- Patients with concern for MIS-C
High Risk Condition

- Obesity BMI ≥ 30 or ≥ 95% for age
- Diabetes
- Immuno-suppressible disease or treatment
- Chronic lung disease (mild-moderate asthma excluded)
- Cardiovascular disease
- Congenital Heart disease
- Neurodevelopmental Disorders
- Medical complexity
- Sickle cell disease
- Hypertension
- Chronic kidney or liver disease
- Pregnancy
Indications for Admission

- Lower resp sx & abnormal CXR & high risk condition
- Oxygen requirement
- Dyspnea
- Tachycardia
- Sepsis, organ failure
- AMS

High Risk Condition

- Obesity BMI ≥ 30 or ≥ 95% for age
- Diabetes
- Immuno-suppressive disease or treatment
- Chronic lung disease (mild-moderate asthma excluded)
- Cardiovascular disease
- Congenital Heart disease
- Neurodevelopmental Disorders
- Medical complexity
- Sickle cell disease
- Hypertension
- Chronic kidney or liver disease
- Pregnancy
Eligibility Criteria
- ≥28 days old
- ≥3 kg
- Mild-mod COVID-19 symptoms (starting ≤6 days ago)
- Positive viral test (lab or home test)
- Current tier offering (see Anchor)

*Eligible for therapy?*

No therapy offered

Eligible for therapy?*

Yes

Age ≥12 years AND weight ≥40 kg?

No

Can patient swallow pills?

No

No

Yes

Paxlovid exclusion?‡

Yes

May be eligible for outpatient IV remdesivir

Call PCTC (5-0221) to speak with ID Attending. If approved, APN will contact patient to discuss therapy and schedule

Prescribe Paxlovid (all prescriptions undergo pharmacist review before transmitting)

ED Management

‡Paxlovid exclusions:
- Symptoms started >5 days ago
- Transplant & currently on immunosuppressive therapy
- Pregnancy
- Malabsorption
- Multiple potential drug interactions – please discuss with ED Pharmacist

3 pills BID x 5d
Pills CANNOT be chewed, broken, or crushed
Outpatient treatments for mild-moderate COVID-19 are available for patients who meet the following general criteria:

- An underlying risk factor for progression to severe disease, available on [NCH COVID Page](#)
- Symptoms of COVID-19 and a positive viral test for SARS-CoV-2 (including home tests)
- Not hospitalized due to COVID-19, requiring oxygen therapy due to COVID-19, or requiring an increase in oxygen flow rate due to COVID-19 (for those on chronic oxygen therapy)

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Minimum Age</th>
<th>Minimum Weight</th>
<th>Additional Criteria</th>
<th>Contraindications/Precautions</th>
<th>Requirements for Use</th>
<th>How to Access†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paxlovid (nirmatrelvir &amp; ritonavir)</td>
<td>12 years</td>
<td>40 kg</td>
<td>Able to start treatment within 5 days of symptom onset</td>
<td>Contraindications: Transplant &amp; currently on immunosuppressive therapy</td>
<td>Available under Emergency Use Authorization only</td>
<td>Call Physician Direct Connect (614-355-0221) and speak to an ID physician or prescribe to retail pharmacy or NCH Blue pharmacy‡</td>
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<td></td>
<td>Able to swallow pills whole</td>
<td>Pregnancy</td>
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<td></td>
<td></td>
<td></td>
<td>Malabsorption</td>
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<td></td>
<td>Many drug-drug interactions‡</td>
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<td></td>
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<tr>
<td>IV Remdesivir (3-day course)</td>
<td>28 days</td>
<td>3 kg</td>
<td>Able to start treatment within 7 days of symptom onset</td>
<td>Precautions: Transaminase elevation</td>
<td>FDA approved for patients ≥28 days old and weighing ≥3 kg</td>
<td>Call Physician Direct Connect (614-355-0221) and speak to an ID physician</td>
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<td>PT prolongation</td>
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</table>

†For NCH inpatients with COVID-19 but NOT hospitalized because of COVID-19, and who are otherwise eligible for outpatient therapy, contact the ID consult team. If treatment recommended, remdesivir can be ordered in Epic; for Paxlovid, work with clinical pharmacist to complete review of potential drug-drug interactions and facilitate ordering.
‡Review EUA information for contraindications. If obtained through ID via Physician Direct Connect, pharmacy review occurs routinely prior to prescribing.
§Clinicians may prescribe Paxlovid to retail pharmacies or NCH Blue pharmacy without speaking to NCH ID. All prescriptions written in NCH Epic will undergo pharmacist review prior to transmission to the pharmacy. Review the Emergency Use Authorization information available online.
Quality Metrics

**Goal:**
- Identify patients with COVID-19 who are at high risk for severe disease and provide optimal evaluation and treatment.

**Process Measures:**
- Pathway visualization
- Order set utilization
- Paxlovid prescription rate for high-risk patients
- Pharmacist utilization of Paxlovid dot phrase

**Outcome measures:**
- ED return visits for respiratory symptoms within 72 hours
- Treatment with antibiotics

**Balancing measure:**
- ED LOS
Clinical Pathway Development

This clinical pathway was developed using the process described in the NCH Evidence Based Practice Guideline Development Manual v4.1.

Clinical Pathways, Care Process Models, and algorithms at Nationwide Children’s Hospital (NCH) are standards which provide general guidance to clinicians. Patient choice and clinician judgment remain central to the selection of diagnostic tests and therapy. The ordering provider is ultimately responsible for care decisions. NCH’s guidelines and algorithms are reviewed periodically for consistency with new evidence; however, new developments may not be represented.

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