COVID-19 Pediatric Admission Order Set

Form Title: COVID-19 Pediatric Admission Order Set
Form Number: 21627

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Admission

☐ Admit to Inpatient Service:

Goals of Care

Should be addressed upon admission

☐ R1  ☐ M1  ☐ C1
☐ R2  ☐ M2  ☐ C2
☐ R3

Screening

☑ Respiratory Viral Pathogen Testing (Includes COVID-19)

Must complete the following laboratory requisition; COVID-19 and Other Respiratory Viruses (Form #21701) with required clinical history and criteria to ensure timely processing of test https://www.albertahealthservices.ca/frm-21701.pdf

For ID NOW COVID-19 testing, follow local processes if available at your site.

Isolation

☑ Initiate Contact and Droplet Isolation for suspected or positive COVID-19 (acute respiratory illness)

☑ Wear fit tested N95 respirator and move to private room ONLY when performing Aerosol-generating medical procedures (AGMP)

Respiratory Interventions

If Aerosol-Generating Medical Procedures (AGMP) required - place patient in a private room with hard walls and a closed door, all staff to use N-95 respirators during AGMP. Refer to AGMP look up tool: http://ahsweb.ca/HEE/AGMP_Guidance_Tool.

If oxygen requirements are rapidly increasing consider early consultation with Critical Care or RAAPID transfer.

☑ Oxygen Therapy – Titrate to Saturation

• Children: titrate to target SpO2 between 92% to 96%

Initial O2 delivery method:

☐ Nasal Prongs
☐ Simple face mask (non-humidified)
☐ Face mask with reservoir/non-rebreather (non-humidified)

Patient Care

☐ Vital Signs (Temperature, Blood pressure, Heart rate, Respiratory rate, SpO2) every 4 hours

☐ Cardio-respiratory Monitoring; continuous

☐ Pulse Oximetry (specify): ☐ Intermittent  ☐ Continuous

☐ Weigh patient (specify): ☐ Daily  ☐ other: ____________________________

☐ Measure Height on admission

☐ Adjust Head of Bed to at least 30 degrees

☐ Notify Most Responsible Health Practitioner if increasing O2 requirements, rapidly progressive respiratory failure or sepsis (follow local Early Warning System policy as applicable)

☐ Activity (specify): ☐ No Activity Restrictions  ☐ Strict Bed Rest

Diet and Nutrition - If clinically appropriate oral feeds are preferred over IV. If unable to tolerate or deteriorating, IV fluids are preferred as opposed to NG. Consider NPO for patients in respiratory distress or with high oxygen requirements.

☐ NPO  ☐ Enteral Nutrition (specify): _______________________________

☐ Age appropriate pediatric diet  ☐ Other diet _______________________________

☐ Breast milk or bottle fed ad lib

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For current Clinical Guidance refer to the following links:

Care of the Hospitalized Pediatric Patient with COVID-19 Inpatient Guideline
https://ahsweb.ca/HEE/Care_of_the_hospitalized_pediatric_patient_with_Covid_19

Care of the Pediatric Critically Ill COVID-19 Patient Annex E
https://ahsweb.ca/HEE/Care_of_the_critically_ill_pediatric_patient_with_Covid_19

AHS COVID-19 Insite Page
http://ahsweb.ca/HEE/AHS_Insite_COVID-19

Recommendations for Antimicrobial Management of Pediatric Hospitalized Patients with COVID-19

Interim IPC Recommendation during COVID-19
http://ahsweb.ca/HEE/Interim_IPC_Recommendations_during_COVID-19

Clinical Decision Support

Signs and symptoms are similar to those of a typical Influenza-like Illness.

<table>
<thead>
<tr>
<th>Classification of severity of COVID-19 in children:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note there is not yet consensus on this categorization; these are based on literature to date and guidelines for experimental treatments. It is recognized these categories do not match typical severities of ILI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mild Disease</th>
<th>• Upper respiratory symptoms (e.g., pharyngeal congestion, sore throat, and fever) for a short duration or asymptomatic infection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Positive RT-PCR test for SARS-CoV-2</td>
</tr>
<tr>
<td></td>
<td>• May also include fatigue, myalgia, and gastrointestinal symptoms</td>
</tr>
</tbody>
</table>

| Moderate Disease | • Clinical and/or radiological signs of pneumonia on chest imaging |
|                 | • Symptoms such as fever, cough, fatigue, headache, and myalgia |
|                 | • No complications and manifestations related to severe conditions |

| Severe Disease | Mild or moderate clinical features, plus any manifestations that suggest disease progression: |
|               | • Worsening tachypnea |
|               | • Hypoxemia (oxygen saturation less than 92 % on room air) |
|               | • Altered level of consciousness, such as Irritability or lethargy |
|               | • Dehydration, difficulty feeding, gastrointestinal dysfunction |

| Critical Disease | Rapid disease progression, plus any other conditions: |
|                 | • Respiratory failure with need for mechanical ventilation (e.g., ARDS, persistent hypoxia despite non-invasive oxygen supplementation) |
|                 | • Decreased level of consciousness, depression, coma, convulsions |
|                 | • Myocardial injury |
|                 | • Elevated liver enzymes |
|                 | • Coagulation dysfunction, rhabdomyolysis, and any other manifestations suggesting injuries to vital organs |
|                 | • Septic shock |
|                 | • Other evidence of organ failure |

Treatment is generally supportive. Strict isolation precautions in keeping with AHS IPC guidelines are to be maintained.
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Select orders by placing a (✓) in the associated box

**Laboratory Investigations**

<table>
<thead>
<tr>
<th>Basic (not routinely recommended for mild disease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ CBC and Differential</td>
</tr>
<tr>
<td>☐ Creatinine</td>
</tr>
<tr>
<td>☐ Bilirubin, Total</td>
</tr>
<tr>
<td>☐ C-Reactive Protein</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Line (literature does not support a specific role of these parameters in guiding clinical management but they may be useful in prognostication)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Triglycerides</td>
</tr>
<tr>
<td>☐ Ferritin</td>
</tr>
<tr>
<td>☐ Blood Gas Capillary</td>
</tr>
</tbody>
</table>

**COVID-19 Serology**

*If a COVID-19 NAT positive patient at least 12 years old, greater than 40 kg, is unvaccinated or immunocompromised, admitted to hospital, had no previous history of COVID-19 infection and is considered for treatment with casirivimab/imdevimab, then COVID-19 serology is indicated.*

Recommend Consultation to Pediatric Infectious Diseases.

Supply is limited for casirivimab-imdevimab (REGEN-COV). Discretion around ordering based on AHS formulary criteria is advised. This test is restricted based on site.

*If testing will be conducted in regional hospital-based APL labs in High Level, Grande Prairie, Fort McMurray, Red Deer, Lethbridge or Medicine Hat, CHOOSE:*  
☐ Rapid COVID-19 Serology, STAT

*If testing will be conducted in Edmonton Zone or Calgary Zone, CHOOSE:*  
☐ COVID-19 Serology, STAT  
Result can only be obtained during day-shift hours (0730-1600). After hours testing is not available. Ensure tube is labelled with ProvLab Monoclonal Antibody

**Diagnostic Imaging** - CTs are not often used in pediatrics due to risks associated with ionizing radiation

☐ Chest X-ray portable

**Cardiology** - Consider in severe or critical COVID-19

☐ Electrocardiogram, 12-lead  
☐ Pediatric Transthoracic Echocardiogram (TTE) Limited  
☐ Pediatric Transthoracic Echocardiogram (TTE) Complete

**IV Fluids** - Conservative fluid management strategies for children are recommended. Consider limiting total fluid intake to 75% maintenance.

☐ Pediatric Total Fluid Intake (TFI)

| ☐ NaCl 0.9% infusion IV bolus mL or IV maintenance at (specify rate): |
| ☐ NaCl 0.9% 20 mmol KCl per 1000 mL infusion IV maintenance at (specify rate): |
| ☐ D5-NaCl 0.9% infusion IV maintenance at (specify rate): |
| ☐ D5-NaCl 0.9% 20 mmol KCl per 1000 mL infusion IV maintenance at (specify rate): |
| ☐ Other Fluid (specify type): at (specify rate): |

Prescriber Name | Prescriber Signature | Date (dd-Mon-yyyy) | Time (hh:mm)
Medications - refer to side B of page 2 for additional medication guidance

**Antibiotics**
Recommended if patient critically ill, at risk of early deterioration, suspicion of secondary bacterial pneumonia, or sepsis.

**Moderate Illness**
Recommended dosage for amoxicillin: 45-90 mg/kg/day divided every 8 hours.
Higher dose to be used if there are risk factors for resistant Streptococcus pneumonia: Unimmunized or incompletely immunized, attends daycare, use of amoxicillin in preceding 3 months, failure of initial therapy

- amoxicillin 50 mg/mL liquid oral ____________ mg PO TID
  - OR
- amoxicillin injection ______ mg IV every 6 hours

If the clinical and epidemiological presentation is in keeping with M. pneumonia disease, consider

**Azithromycin**
Recommended azithromycin dose is 10 mg/kg/dose once on Day 1 followed by 5 mg/kg/dose daily for 4 days (5 days total).

- AZithromycin ______ mg once on DAY 1: □ PO □ IV
  - FOLLOWED BY
- AZithromycin ______ mg daily for 4 days: □ PO □ IV

**Severe Illness**
Recommended dose for ceftriaxone 50-75 mg/kg/dose every 24 hours or divided every 12hrs

- cefTRIAXone IV ______ mg, every ______ hours, first dose STAT

**Critical Illness: consider addition of vancomycin**
Recommended dose for vancomycin 15 mg/kg/dose every 6 hours

- vancomycin ______ mg IV every 6 hours

**Antivirals - Not routinely recommended for COVID-19. Infectious Diseases consultation recommended except for Tamiflu in treatment of Influenza.**
Oseltamivir can be used for Influenza (suspected or confirmed) without ID consult and should ideally be started within 48 hours of symptom onset. For severe hospital or ICU cases during Influenza season it is recommended even beyond 48 hours of symptom onset.

Recommended dose for oseltamivir in children and adolescents:
- 15 kg or less - 30 mg
- 15 to 23 kg - 45 mg
- 23 to 40 kg - 60 mg
- greater than 40 kg - 75 mg

- oseltamivir 6 mg/ml PO ______ mg: □ liquid □ capsule every: □ day □ BID

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### Medications


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**Immunomodulatory**

Consider casirivimab/imdevimab (REGEN-COV) if patient greater than 12 years of age, unvaccinated, seronegative, no prior COVID-19 infection OR if patient immunocompromised.

Recommend consultation to Pediatric Infectious Disease.

Consider tocilizumab OR baricitinib if admission less than 7 days, significant respiratory failure requiring high-flow nasal cannula, ventilation (invasive or non-invasive) less than 24 hours previous.

Recommend consultation to Pediatric Infectious Disease.

AHS Formulary – tocilizumab: https://ahsweb.ca/HEE/ahs_formulary_tocilizumab
AHS Formulary – baricitinib: https://ahsweb.ca/HEE/ahs_formulary_baricitinib


AHS Formulary casirivimab/imdevimab: https://ahsweb.ca/HEE/ahs_formulary_casirivimab_imdevimab


- glucocorticoids

**Glucocorticoids should be considered in hospitalized patients who meet criteria for severe disease including those that require supplemental oxygen.**

Please refer to the Care of the Hospitalized Pediatric Patient with COVID-19 provincial guideline for definition of Severe disease. https://ahsweb.ca/HEE/Care_of_the_hospitalized_pediatric_patient_with_Covid_19

- dexamethasone injection for oral use (0.15 mg/kg/dose, Max 6 mg) ______ mg PO daily x 10 days.
  - OR
- dexamethasone tab (0.15 mg/kg/dose, Max 6 mg) ______ mg PO daily x 10 days
  - OR
- dexamethasone (0.15 mg/kg/dose, Max 6 mg) ______ mg IV daily x 10 days

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<tbody>
<tr>
<td>☐ Consult to Pediatric Critical Care</td>
</tr>
<tr>
<td>☐ Consult to Pediatric Infectious Disease</td>
</tr>
<tr>
<td>☐ Consult to Pediatric Respiratory Medicine</td>
</tr>
<tr>
<td>☐ Consult to Pediatric Cardiology</td>
</tr>
<tr>
<td>☐ Consult to Pediatric Rheumatology</td>
</tr>
<tr>
<td>☐ Consult (specify): ___________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Discharge Follow up</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Patient/caregiver to book follow-up with their Primary Care Provider in 1 to 3 days post-discharge as per clinical assessment</td>
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