

COVID-19 Pediatric Admission Order Set

Print as needed and always include Side B of applicable pages
(content may change rapidly).

Select orders by placing a (✓) in the associated box

Last Name (Legal)		First Name (Legal)	
Preferred Name <input type="checkbox"/> Last <input type="checkbox"/> First		DOB (dd-Mon-yyyy)	
PHN	ULI <input type="checkbox"/> Same as PHN	MRN	
Administrative Gender <input type="checkbox"/> Male <input type="checkbox"/> Female		<input type="checkbox"/> Non-binary/Prefer not to disclose (X) <input type="checkbox"/> Unknown	

Admission			
<input type="checkbox"/> Admit to Inpatient Service:			
Goals of Care			
Should be addressed upon admission			
<input type="checkbox"/> R1	<input type="checkbox"/> M1	<input type="checkbox"/> C1	
<input type="checkbox"/> R2	<input type="checkbox"/> M2	<input type="checkbox"/> C2	
<input type="checkbox"/> R3			
Screening			
<input checked="" type="checkbox"/> 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			
<input checked="" type="checkbox"/> Initiate Contact and Droplet Isolation for suspected or positive COVID-19 (acute respiratory illness)			
<input checked="" type="checkbox"/> 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.			
<input checked="" type="checkbox"/> Oxygen Therapy – Titrate to Saturation			
• Children: titrate to target SpO2 between 92% to 96%			
Initial O2 delivery method:			
<input type="checkbox"/> Nasal Prongs			
<input type="checkbox"/> Simple face mask (non-humidified)			
<input type="checkbox"/> Face mask with reservoir/non-rebreather (non-humidified)			
Patient Care			
<input type="checkbox"/> Vital Signs (Temperature, Blood pressure, Heart rate, Respiratory rate, SpO2) every 4 hours			
<input type="checkbox"/> Cardio-respiratory Monitoring; continuous			
<input type="checkbox"/> Pulse Oximetry (specify): <input type="checkbox"/> Intermittent <input type="checkbox"/> Continuous			
<input type="checkbox"/> Weigh patient (specify): <input type="checkbox"/> Daily <input type="checkbox"/> other: _____			
<input type="checkbox"/> Measure Height on admission			
<input type="checkbox"/> Adjust Head of Bed to at least 30 degrees			
<input type="checkbox"/> Notify Most Responsible Health Practitioner if increasing O2 requirements, rapidly progressive respiratory failure or sepsis (follow local Early Warning System policy as applicable)			
<input type="checkbox"/> Activity (specify): <input type="checkbox"/> No Activity Restrictions <input type="checkbox"/> 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.			
<input type="checkbox"/> NPO		<input type="checkbox"/> Enteral Nutrition (specify): _____	
<input type="checkbox"/> Age appropriate pediatric diet		<input type="checkbox"/> Other diet _____	
<input type="checkbox"/> Breast milk or bottle fed ad lib			
Prescriber Name	Prescriber Signature	Date (dd-Mon-yyyy)	Time (hh:mm)

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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
http://ahsweb.ca/HEE/AHS_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.

Classification of severity of COVID-19 in children:	
<i>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</i>	
Mild Disease	<ul style="list-style-type: none"> Upper respiratory symptoms (e.g., pharyngeal congestion, sore throat, and fever) for a short duration or asymptomatic infection Positive RT-PCR test for SARS-CoV-2 May also include fatigue, myalgia, and gastrointestinal symptoms
Moderate Disease	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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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Laboratory Investigations

Basic (not routinely recommended for mild disease)

- | | | |
|---|--|--|
| <input type="checkbox"/> CBC and Differential | <input type="checkbox"/> Aspartate Aminotransferase (AST) | <input type="checkbox"/> Glucose, random |
| <input type="checkbox"/> Creatinine | <input type="checkbox"/> Alanine Aminotransferase (ALT) | <input type="checkbox"/> Urea |
| <input type="checkbox"/> Bilirubin, Total | <input type="checkbox"/> Electrolytes (Na, K, Cl, CO ₂ , Anion Gap) | <input type="checkbox"/> Blood Cultures |
| <input type="checkbox"/> C-Reactive Protein | | |

Second Line (literature does not support a specific role of these parameters in guiding clinical management but they may be useful in prognostication)

- | | | | |
|--|--|-------------------------------------|------------------------------------|
| <input type="checkbox"/> Triglycerides | <input type="checkbox"/> Lactate Dehydrogenase | <input type="checkbox"/> Fibrinogen | <input type="checkbox"/> D-dimer |
| <input type="checkbox"/> Ferritin | <input type="checkbox"/> Troponin | <input type="checkbox"/> INR | <input type="checkbox"/> Cytokines |
| <input type="checkbox"/> Blood Gas Capillary | | | |

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): _____

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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

Recommended dose for ampicillin 200-400 mg/kg/day every 24 hours or divided q6hrs

☐ ampicillin injection _____ mg IV every 6 hours

Severe Illness

Recommended dose for ceftriaxone 50-75 mg/kg/day every 24 hours

☐ 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

Bugs and Drugs: https://ahsweb.ca/HEE/Bugs_and_Drugs

AHS Parenteral Drug Monograph: https://ahsweb.ca/HEE/AHS_Parenteral_Monograph_Vancomycin

Suggest Therapeutic Drug Monitoring (TDM) when vancomycin is expected to continue for more than 48 hours. Refer to Bugs and Drugs or the AHS Parenteral Drug Monograph for details. Clinicians unfamiliar with TDM of vancomycin are encouraged to consult with a pharmacist.

☐ vancomycin _____ mg IV every 6 hours

☐ vancomycin level, Pre-dose _____

☐ Urea, daily AM

☐ Creatinine, daily AM

Antivirals - Not routinely recommended for COVID-19. Infectious Diseases consultation recommended except for Tamiflu in treatment of Influenza.

Remdesivir may be useful early in disease course (7 day or earlier) if at high risk for severe disease and not yet ventilated, especially if immunocompromised. Refer to:

Guidance: Antimicrobial Management of Adult Hospitalized patients with COVID-19:

https://ahsweb.ca/HEE/Antimicrobial_Immunomodulatory_Therapy_Adult_Patients_COVID_19

AHS formulary: https://ahsweb.ca/HEE/ahs_formulary_remdesivir

Recommended dose for remdesivir in children and adolescents- 3.5 kg to 39.9 kg is 5 mg/kg/dose

☐ remdesivir _____ IV, once for 1 dose

Followed By:

☐ remdesivir (recommended dose 2.5 mg/kg/dose) _____ IV, every 24 hours for 4 doses

Recommended dose for remdesivir in children and adolescents 40 kg or greater- 200 mg

☐ remdesivir _____ IV, once for 1 dose

Followed By:

☐ remdesivir (recommended dose 100 mg) _____ IV, every 24 hours for 4 doses

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Immunomodulatory

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.

In the presence of renal dysfunction, consult pharmacy and Rheumatology for adjustment.

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

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

Manual: COVID-19 Immunomodulator Orders:

<https://manual.connect-care.ca/home/hot-topics/covid-19/covid-19-decision-supports/covid-19-tocilizumab-orders>

Care of the Hospitalized Pediatric Patient with COVID-19:

https://ahsweb.ca/HEE/Care_of_the_hospitalized_pediatric_patient_with_Covid_19

☐ _____

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

Consults/Referrals

☐ Consult to Pediatric Critical Care

☐ Consult to Pediatric Infectious Disease

☐ Consult to Pediatric Respiratory Medicine

☐ Consult to Pediatric Cardiology

☐ Consult to Pediatric Rheumatology

☐ Consult (specify): _____

Discharge Follow up

☐ Patient/caregiver to book follow-up with their Primary Care Provider in 1 to 3 days post-discharge as per clinical assessment

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