Recommendations for COVID-19 Treatment

*Based on recommendations by the scientific committee on COVID-19 therapeutics – January 14, 2022

Population	Recommended	Not Recommended
Inpatient **In ICU for COVID-19 illness** Require respiratory and/or cardiovascular support, including high-flow oxygen, non-invasive ventilation, mechanical ventilation, ECMO, vasopressor, or inotropic support	• **Dexamethasone** 6 mg IV/po daily x 10 days • **Tocilizumab** 4 mg/kg IV once (up to a max dose of 400mg) If patient qualifies for tocilizumab but drug is in short supply consider: ○ **Sarilumab** 400 mg IV once ○ **Baricitinib** 4 mg po/NG daily x 14 days (or until hospital discharge, if sooner)	• Therapeutic dose anticoagulation in the absence of a separate indication for this treatment • Do not use baricitinib in combination with tocilizumab or sarilumab
Inpatient **On ward (or VCOP) for COVID-19 illness** Require new start of low-flow supplemental oxygen, intravenous fluids, or physiologic support	• **Dexamethasone** 6 mg po/IV daily x 10 days or until hospital discharge • **Therapeutic dose anticoagulation** with low molecular weight heparin (LMWH) OR unfractionated heparin (UFH) using standard venous thromboembolism (VTE) treatment dosing x 14 days or until hospital discharge • **Tocilizumab** 4 mg/kg IV once (up to a max dose of 400 mg) after consultation with ICU AND if there is evidence of disease progression (increasing oxygen or ventilatory requirements) AND systemic inflammation defined as a CRP of ≥75 mg/L (should only be given with corticosteroids) If patient qualifies for tocilizumab but drug is in short supply consider: ○ **Sarilumab** 400 mg IV once ○ **Baricitinib** 4 mg po/NG daily x 14 days (or until hospital discharge if sooner)	• Dexamethasone if patients do not require supplemental oxygen • Therapeutic dose anticoagulation with a NOAC in the absence of a separate indication for this treatment • Do not use baricitinib in combination with tocilizumab or sarilumab

	• Consider **Sotrovimab** 500 mg IV once if patient
	  ○ Requires low flow oxygen **AND**
	  ○ Duration of COVID-19 symptoms ≤9 days **AND**
	  ○ Seronegative for SARS-CoV-2 anti-spike antibody within the 9-day symptom window
		• Routine co-administration of empiric antibiotic(s)

Population	**Recommended**	**Not Recommended**
Inpatient **On ward (hospitalized for other reasons)** Mildly symptomatic for COVID-19; tested positive for SARS-CoV-2, but hospitalized for other reasons	Patients who are **mildly symptomatic from COVID-19** and are **hospitalized for alternative reasons** may be considered for COVID-19 treatments if they would have otherwise met criteria in the outpatient setting (Groups 1, 2, 3 or 4). The age limit for Group 4 is lowered to ≥ 40 yrs for all. **(See Outpatient Section for details)**	Same as for mildly ill outpatients (see below)
Outpatient Requires mild symptoms but **not** dependent on supplemental oxygen (above their baseline), IV fluids, or physiologic support. Includes patients managed in ambulatory programs, VCOP, or in PCH and other long-term care facilities	**Minimum Requirements (all 3 must be met):** ☐ 18 years of age or older ☐ Symptom onset within last 7 days ☐ Mild to moderate symptoms (do not require supplemental oxygen (above their baseline), intravenous fluids, or physiologic support; hospital admission or referral to emergency department for COVID-19 evaluation NOT imminently required) **Group 1: Immunocompromised individuals** that have **one or more of the following** conditions: ☐ Active treatment for solid tumor and hematologic malignancies ☐ Receipt of solid-organ transplant and taking immunosuppressive therapy ☐ Receipt of chimeric antigen receptor (CAR)-T-cell or hematopoietic stem cell transplant (within 2 years of transplantation or taking immunosuppression therapy) ☐ Moderate or severe primary immunodeficiency (e.g., DiGeorge syndrome, Wiskott-Aldrich syndrome) ☐ Advanced or untreated HIV infection	• Dexamethasone • Tocilizumab • Colchicine

	☐ Active treatment with high-dose corticosteroids (i.e., ≥20 mg/d prednisone or equivalent when administered for ≥2 weeks), alkylating agents, antimetabolites, transplant-related immunosuppressive drugs, cancer chemotherapeutic agents classified as severely immunosuppressive ☐ Tumor-necrosis factor (TNF) blockers, and other biologic agents that are immunosuppressive or immunomodulatory 1. **Sotrovimab** 500 mg IV once if COVID-19 symptoms for ≤7 days AND regardless of previous vaccination status or prior infection with SARS-CoV-2. Serologic testing is not recommended. 2. *Based on patient preference and sotrovimab availability one of the following alternatives may be considered*: ○ **Remdesivir** 200 mg IV on day 1, then 100 mg IV daily x 2 days if duration of symptoms ≤7 days **OR** ○ **Paxlovid** (nirmatrelvir 300mg [2 tabs] + ritonavir 100mg [1 tab]) PO BID x5 days if duration of symptoms ≤5 days CAVEATS: a) Recent serum creatinine test (must be within the last six months*): *EXCEPTION: If patient is less than 50 years with no comorbid medical conditions and has a BMI of less than 30 and has a previously normal serum creatinine level, then measurement of serum creatinine within six months is optional. b) Check drug-drug interactions https://sharedhealthmb.ca/files/covid-19-paxlovid-drug-interactions.pdf c) Contraindicated in pregnancy d) Contraindicated in severe liver disease (Child-Pugh class C) or renal failure (eGFR<30)	

e) If eGFR 30-60 ml/min use half dose nirmatrelvir 150 mg [1 tab] + ritonavir 100 mg [1 tab] PO BID x5 days

3. *If antivirals and monoclonals unavailable or contraindicated consider*:
   - **Fluvoxamine** 50 mg PO daily x 1 day, followed by 50mg PO BID x 1 day, then 100mg PO BID for total treatment course of 15 days if symptom duration ≤ 7 days **OR**
   - **Inhaled Budesonide** 800 mcg BID x 14 days if symptom duration ≤ 7 days

Group 2 Criteria (all 3 must be met):
- ☐ Unvaccinated (zero doses) or partially vaccinated (1 dose of a 2-dose series)
- ☐ No history of a test confirmed COVID-19 infection in the last 6 months
- ☐ >40 years of age

Group 3 Criteria (all 3 criteria plus 1 risk factor):
- ☐ Unvaccinated (zero doses) or partially vaccinated (1 dose of a 2-dose series)
- ☐ No history of a test confirmed COVID-19 infection in the last 6 months
- ☐ 18-40 years old

AND have **<u>one of the following</u>** risk factors:
- ☐ Diabetes (diet controlled, insulin, non-insulin)
- ☐ Smoking (current or previous)
- ☐ BMI >30
- ☐ Cancer, active treatment of, or in follow up
- ☐ Cerebrovascular disease (stroke, TIA's)
- ☐ Chronic kidney disease (estimated GFR<60), or dialysis patient
- ☐ Chronic lung diseases limited to:
  - ☐ Interstitial lung disease
  - ☐ Pulmonary embolism
  - ☐ Pulmonary hypertension
  - ☐ Bronchopulmonary dysplasia
  - ☐ Bronchiectasis
  - ☐ COPD (chronic obstructive pulmonary disease)
- ☐ Chronic liver diseases limited to:
  - ☐ Cirrhosis
  - ☐ Non-alcoholic fatty liver disease
  - ☐ Alcoholic liver disease
  - ☐ Autoimmune hepatitis
- ☐ Heart conditions limited to:

- Heart failure or cardiomyopathies
- Coronary artery disease

- Mental health disorders limited to:
  - Mood disorders, including depression
  - Schizophrenia spectrum disorders
- Pregnancy and recent pregnancy (not eligible for paxlovid)
- On treatment for Tuberculosis

Group 4 Criteria:

- No history of a test confirmed COVID-19 infection in the last 6 months

AND (one of the criteria below **<u>plus</u>** at least 1 risk factor**):**

- Individual self-identifies as Indigenous* and is 40 years or older and completely vaccinated (2 doses of 2-dose series) but >4 months have elapsed since the 2nd dose (or 1-dose of single-dose series of vaccine and more than 4 months have elapsed)**
- Individual is 50 years or older and completely vaccinated (2 doses of 2-dose series) but >4 months have elapsed since 2nd dose (or 1-dose of single dose series of vaccine and more than 4 months have elapsed)**

** Indigenous includes people who identify as First Nations, Metis or Inuit.*
*** Individuals in the above categories who are <14 days post booster dose are candidates.*

AND <u>one or more of the following risk factors</u>:

- Diabetes (diet controlled, insulin, non-insulin)
- Smoking (current or previous)
- BMI >30
- Cancer, active treatment of, or in follow up
- Cerebrovascular disease (stroke, TIA's)
- Chronic kidney disease (estimated GFR<60), or dialysis patient
- Chronic lung diseases limited to:
  - Interstitial lung disease
  - Pulmonary embolism
  - Pulmonary hypertension
  - Bronchopulmonary dysplasia
  - Bronchiectasis
  - COPD (chronic obstructive pulmonary disease)
- Chronic liver diseases limited to:
  - Cirrhosis

- ☐ Non-alcoholic fatty liver disease
- ☐ Alcoholic liver disease
- ☐ Autoimmune hepatitis

☐ Heart conditions limited to:
- ☐ Heart failure or cardiomyopathies
- ☐ Coronary artery disease

☐ Mental health disorders limited to:
- ☐ Mood disorders, including depression
- ☐ Schizophrenia spectrum disorders

☐ Pregnancy and recent pregnancy (not eligible for paxlovid)

☐ On treatment for Tuberculosis

1. For patients who meet criteria for Group 2, 3, or 4, consider one of the following antivirals:
   - **Paxlovid** (nirmatrelvir 300mg [2 tabs] + ritonavir 100mg [1 tab]) PO BID x5 days if duration of symptoms ≤5 days

     CAVEATS:

     a) Recent serum creatinine test (must be within the last six months*):
     *EXCEPTION: If patient is less than 50 years with no comorbid medical conditions and has a BMI of less than 30 and has a previously normal serum creatinine level, then measurement of serum creatinine within six months is optional

     b) check drug-drug interactions https://sharedhealthmb.ca/files/covid-19-paxlovid-drug-interactions.pdf

     c) Contraindicated in pregnancy

     d) Contraindicated in severe liver disease (Child-Pugh class C) or renal failure (eGFR < 30 mL/min)

     e) If eGFR 30-60 ml/min use half dose nirmatrelvir- nirmatrelvir 150 mg [1 tab] + ritonavir 100 mg [1 tab] PO BID x5 days

     OR

   - **Remdesivir** 200 mg IV on day 1, then 100 mg IV daily x 2 days, if duration of COVID-19 symptoms ≤ 7 days (**for pregnancy** would only use if risk of hospital/ICU admission is high AND

	patient is fully informed of limited data on use AND sotrovimab is unavailable). 2. For patients who meet criteria for Group 2, 3 or 4, if antivirals are unavailable or contraindicated, consider: ○ **Sotrovimab** 500 mg IV once if COVID-19 symptoms for ≤7 days (should only be considered if patient is at high risk of hospitalization). **Note: sotrovimab is therapy of first choice in pregnancy** 3. *If above antivirals and monoclonals are unavailable or contraindicated consider*: ○ **Fluvoxamine** 50 mg po daily x 1 day, followed by 50mg PO BID x 1 day, then 100mg PO BID for total treatment course of 15 days if symptom duration ≤ 7 days **OR** ○ **Inhaled Budesonide** 800 mcg BID x 14 days if symptom duration ≤ 7 days	

NOT RECOMMENDED IN ANY POPULATION

- Routine use of empiric antibiotics to prevent bacterial pneumonia (unless bacterial pneumonia is strongly suspected). Bacterial co-infection is uncommon in Covid-19 pneumonia at presentation.
- Hydroxychloroquine or chloroquine
- Ivermectin
- Lopinavir/ritonavir