British Columbia COVID-19 Therapeutics Committee (CTC) Clinical Practice Guidance for

Antimicrobial and Immunomodulatory Therapy in Adult Patients with COVID-19

SUMMARY
last updated January 13th, 2021

Recommendations in this document apply to patients > 18 years of age. For details including special populations, refer to the complete summary document.

There is limited clinical evidence to guide antiviral therapy for patients with COVID-19.

Specialist consultation (e.g., Critical Care, Infectious Disease, Hematology, or Rheumatology) is recommended if any investigational treatment is offered to a patient with COVID-19 outside of approved clinical trials. Informed consent should be obtained from the patient or the substitute decision maker.

SEVERITY OF ILLNESS	ANTIVIRAL THERAPY Unless otherwise specified, recommendations include antivirals alone or in combination	ANTIBACTERIAL THERAPY	IMMUNOMODULATORY THERAPY	OTHER THERAPEUTICS
Critically Ill COVID-19 Patients *Hospitalized, ICU-based* Patients requiring respiratory support (high-flow oxygen, noninvasive ventilation, mechanical ventilation) and/or vasopressor/ inotropic support	**Chloroquine** or **Hydroxychloroquine** is **not** recommended for the treatment of COVID-19 **Lopinavir/ritonavir** is **not** recommended for the treatment of COVID-19 **Remdesivir#** is **not** recommended outside of approved clinical trials **Interferon IV/SC** is **not** recommended for the treatment of COVID-19. **Ribavirin/ Interferon (Inhaled)** is **not** recommended outside of approved clinical trials	**Ceftriaxone 1-2 g IV q24h x 5 days** is recommended if there is concern for bacterial co-infection (alternative for severe beta-lactam allergy: moxifloxacin 400 mg IV q24h x 5 days) **Azithromycin 500 mg IV q24h x 3 days** is recommended if atypical bacterial infection is suspected (not required if on moxifloxacin) De-escalate on the basis of microbiology results and clinical judgment	**Dexamethasone 6 mg IV/SC/PO q24h for up to 10 days** is **strongly recommended** (RECOVERY trial), unless higher doses are clinically indicated.* Hydrocortisone 50 mg IV q6h is recommended as an alternative (REMAP-CAP trial). If dexamethasone and hydrocortisone are not available, methylprednisolone 32 mg IV q24h or prednisone 40 mg PO daily are recommended. **Tocilizumab 8 mg/kg IV (single dose; up to maximum 800 mg)** is **recommended** (REMAP-CAP) for patients requiring life support due to confirmed COVID-19. This includes high-flow oxygen support (e.g., Optiflow) if flow rate > 30 L/min and FiO2 > 0.4 OR invasive or non-invasive ventilation OR vasopressor or inotropic support. Tocilizumab must be administered within 24 hours of the initiation of life support measures. Patients admitted to hospital for more than 14 days with symptoms of COVID-19 should not receive tocilizumab for this indication. Tocilizumab should only be initiated when life support is required because of COVID-19 rather than other causes (such as bacterial infection, pulmonary embolism, etc). **Passive Immunotherapies (Convalescent Plasma/IVIG/Monoclonal antibodies/ Antibody cocktail therapies/Regn-COV2/Bamlanivimab)** are **not** recommended outside of approved clinical trials	**Enoxaparin 30 mg SC q12h** is **suggested** for VTE prophylaxis **ACE inhibitors** and **ARBs** should not be discontinued solely on the basis of COVID-19 **NSAIDs** should not be discontinued solely on the basis of COVID-19
Severely Ill COVID-19 Patients *Hospitalized, ward-based, long-term care* Patients requiring supplemental oxygen therapy	**Chloroquine** or **Hydroxychloroquine** is **not** recommended for the treatment of COVID-19 **Lopinavir/ritonavir** is **not** recommended for the treatment of COVID-19 **Remdesivir#** has not demonstrated benefit in survival, progression to ventilation or length of hospital stay and remains uncertain with respect to shortening time to recovery by 5 days. The World Health Organization (WHO) has issued a conditional recommendation against the use of remdesivir in hospitalized COVID-19 patients. Further evaluation in approved clinical trials is strongly encouraged. If remdesivir is used outside of clinical trials, full disclosure of risks and benefits with consideration of patient values and preferences are necessary, as it is not considered standard of care. Furthermore, it should be restricted to hospitalized patients requiring supplemental oxygen but not requiring non-invasive or invasive mechanical ventilation." **Interferon IV/SC** is **not** recommended for the treatment of COVID-19. **Ribavirin/ Interferon (Inhaled)** is **not** recommended outside of approved clinical trials	Antibacterial therapy is **not** routinely recommended outside of approved clinical trials unless other indications justify its use (e.g., suspected bacterial co-infection in COVID-19 positive patients)	**Dexamethasone 6 mg IV/SC/PO q24h for up to 10 days** is **strongly recommended** (RECOVERY trial), unless higher doses are clinically indicated.* Hydrocortisone 50 mg IV q6h is recommended as an alternative (REMAP-CAP trial). If dexamethasone and hydrocortisone are not available, methylprednisolone 32 mg IV q24h or prednisone 40 mg PO daily are recommended. **Biologics/Small molecules (Tocilizumab, Sarilumab, Anakinra, Baricitinib)** are **not** recommended outside of approved clinical trials **Passive Immunotherapies (Convalescent Plasma/IVIG/Monoclonal antibodies/ Antibody cocktail therapies/Regn-COV2/Bamlanivimab)** are **not** recommended outside of approved clinical trials	**Enoxaparin 30 mg SC q12h** should be **considered** for VTE prophylaxis in severely ill hospitalized patients **ACE inhibitors** and **ARBs** should not be discontinued solely on the basis of COVID-19 **NSAIDs** should not be discontinued solely on the basis of COVID-19
Mildly Ill COVID-19 Patients *Ambulatory, outpatient, long-term care* Patients who do not require supplemental oxygen, intravenous fluids, or other physiological support	**Chloroquine** or **Hydroxychloroquine** is **not** recommended for the treatment of COVID-19 **Lopinavir/ritonavir** is **not** recommended for the treatment of COVID-19 **Remdesivir#** is **not** recommended outside of approved clinical trials **Interferon IV/SC** is **not** recommended for the treatment of COVID-19. **Ribavirin/ Interferon (Inhaled)** is **not** recommended outside of approved clinical trials	Antibacterial therapy is **not** routinely recommended outside of approved clinical trials unless other indications justify its use (e.g., suspected bacterial co-infection in COVID-19 positive patients)	**Corticosteroids** are **not** recommended outside of approved clinical trials unless otherwise indicated* **Biologics/Small molecules (Tocilizumab, Sarilumab, Anakinra, Baricitinib)** are **not** recommended outside of approved clinical trials **Passive Immunotherapies (Convalescent Plasma/IVIG/Monoclonal antibodies/ Antibody cocktail therapies)** are **not** recommended outside of approved clinical trials	**ACE inhibitors** and **ARBs** should not be discontinued solely on the basis of COVID-19 **NSAIDs** should not be discontinued solely on the basis of COVID-19
Prophylaxis Patients with known COVID-19 exposure	**Chloroquine** or **hydroxychloroquine** is **not** recommended for prophylaxis in patients with known COVID-19 exposure. **Lopinavir/ritonavir** is **not** recommended outside of approved clinical trials			
Discharge Patients with known COVID-19 that have recovered and are discharged from hospital	No COVID-19 specific medications are recommended on discharge (includes corticosteroids and DVT chemoprohylaxis; unless indicated for other reasons)			

** e.g., asthma exacerbation, refractory septic shock, history of chronic steroid use, obstetric use for fetal lung maturation*
 # The Remdesivir Review and Advisory Working Group evaluates the evidence and utility of remdesivir, provides recommendations on its use, and determines its allocation within the province.

This document is dynamic and addresses key therapeutic areas of concern for clinicians. The complete and most up-to-date version of the guidelines is available at http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/clinical-care/treatments