

# Ontario Clinical Practice Guidelines for Antimicrobial and Immunomodulatory Therapy in Adult Patients with COVID-19

Recommendations in this document apply to patients >18 years of age. For recommendations in special populations, refer to the [complete guidelines](#).



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



The guidelines recommend that infectious diseases consultation (where available) be obtained before any investigational treatment is offered to a patient with COVID-19 outside of a clinical trial, and that informed consent be obtained from the patient or substitute decision-maker.

## SEVERITY OF ILLNESS

### ANTIVIRAL

### ANTIBACTERIAL

### IMMUNOMODULATORY

### OTHER THERAPIES

#### Critically Ill Patients

##### Hospitalized, ICU-based

Patients requiring ventilatory and/or circulatory support; also includes patients requiring high-flow nasal cannula, non-invasive ventilation, or higher concentrations of oxygen by mask

- ▶ **Chloroquine** or **hydroxychloroquine** is **not** recommended outside of approved clinical trials or where other indications would justify its use
- ▶ **Lopinavir/ritonavir** is **not** recommended outside of approved clinical trials
- ▶ **Remdesivir** is **not** recommended outside of approved clinical trials (*currently unavailable in Canada*)

- ▶ **Ceftriaxone 1 g IV q24h x 5 days** is recommended if there is concern for bacterial co-infection (Alternative for severe beta-lactam hypersensitivity: levofloxacin 750 mg IV or moxifloxacin 400 mg IV q24h x 5 days)
- ▶ Add azithromycin 500 mg IV q24h x 5 days to ceftriaxone empiric therapy if *Legionella* infection is suspected (azithromycin is not needed if empiric therapy is levofloxacin or moxifloxacin)
- ▶ De-escalate on the basis of microbiology results and clinical judgment

- ▶ **Corticosteroids** should **not** be offered outside of approved clinical trials unless there are other indications for its use
- ▶ **Tocilizumab** should **not** be offered routinely outside of approved clinical trials; may be considered on an individual basis in patients with cytokine storm (with expert consultation)
- ▶ **COVID-19 convalescent plasma** is currently **unavailable** in Canada in critically ill patients and is unavailable outside of clinical trials

- ▶ **Vitamin C** (ascorbic acid) is **not** recommended outside of approved clinical trials

#### Moderately Ill Patients

##### Hospitalized, ward-based

Patients requiring low-flow supplemental oxygen

- ▶ **Chloroquine** or **hydroxychloroquine** (with or without azithromycin) is **not** recommended outside of approved clinical trials or where other indications would justify its use
- ▶ **Lopinavir/ritonavir** is **not** recommended outside of approved clinical trials
- ▶ **Remdesivir** is **not** recommended outside of approved clinical trials (*currently unavailable in Canada*)

- ▶ Antibacterial therapy is **not** routinely recommended outside of approved clinical trials or where other indications would justify its use

- ▶ **Corticosteroids** should **not** be offered outside of approved clinical trials unless there are other indications for its use
- ▶ **Tocilizumab** is **not** recommended outside of approved clinical trials
- ▶ **COVID-19 convalescent plasma** is **not** recommended outside of approved clinical trials (*unavailable outside of clinical trials*)

- ▶ **Vitamin C** (ascorbic acid) is **not** recommended outside of approved clinical trials

#### Mildly Ill Patients

##### Ambulatory, outpatient

Patients who do not require supplemental oxygen, intravenous fluids, or other physiological support



Click here for dosing and pharmacologic considerations for medications under investigation against COVID-19

▶ Numerous therapies have shown a theoretical or mechanistic basis to be beneficial in the management against COVID-19, however clinical data supporting the use of these therapies are lacking. Refer to the [complete guidelines](#) for further discussion.  
 ▶ This document is dynamic and will be updated as changes to recommendations occur. The complete and most up-to-date version of the guidelines is available at [www.antimicrobialstewardship.com/covid-19](http://www.antimicrobialstewardship.com/covid-19). Last updated on April 20, 2020.