



Ontario COVID-19 Clinical Practice Guidelines

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

IMMUNOMODULATORY

ANTIBACTERIAL

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

- ▶ **Remdesivir*** is **not** routinely recommended for critically ill patients; enrolment in approved clinical trials is encouraged. Remdesivir can be considered for use if it is available, where clinical trials are unavailable.
- ▶ **Chloroquine** or **hydroxychloroquine** is **not** recommended outside of clinical trials or where other indications would justify its use
- ▶ **Lopinavir/ritonavir** is **not** recommended outside of clinical trials

- ▶ **Dexamethasone** 6 mg PO/IV daily x 10 days (or until discharge if sooner) is **recommended** for critically ill patients
- ▶ **Tocilizumab** (IL-6 inhibitor) should **not** be offered routinely outside of 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
- ▶ **Interferon** (with or without combination of lopinavir-ritonavir and ribavirin) is **not** recommended outside of clinical trials

- ▶ **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

Moderately Ill Patients

Hospitalized, ward-based

Patients requiring low-flow supplemental oxygen

- ▶ **Remdesivir*** is **recommended** for **moderately ill** patients if it is available
- ▶ **Chloroquine** or **hydroxychloroquine** (with or without azithromycin) is **not** recommended outside of clinical trials or where other indications would justify its use

- ▶ **Dexamethasone** 6 mg PO/IV daily x 10 days (or until discharge if sooner) is **recommended** for **moderately ill** patients
- ▶ **Tocilizumab** (IL-6 inhibitor) is **not** recommended outside of approved clinical trials
- ▶ **COVID-19 convalescent plasma** is **not** recommended outside of clinical trials (*unavailable outside of clinical trials*)
- ▶ **Interferon** (with or without combination of lopinavir-ritonavir and ribavirin) is **not** recommended outside of clinical trials

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

Mildly Ill Patients

Ambulatory, outpatient

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

- ▶ **Remdesivir*** is **not** recommended for **mildly ill** patients

- ▶ **Dexamethasone** is **not** recommended for **mildly ill** patients



Click here for dosing and pharmacologic considerations for medications under investigation

* Remdesivir is not licensed for use in Canada, and is currently unavailable to most patients in Canada.

▶ Numerous therapies (e.g. vitamin C, ivermectin) have shown a theoretical or mechanistic basis to be beneficial in the management against COVID-19, however clinical data for these therapies are lacking. Refer to the [guidelines](#) for further discussion.
 ▶ Recommendations in this document are based on best available data and may change as additional data become available. The complete and most up-to-date version of the guidelines is available at www.antimicrobialstewardship.com/covid-19.