

Patient: Medication Information **Appointment Date:** 2021-Aug-23
Title: Progress Note - Pharmacist Encounter
Provider: Truong, Christine **Referred By:** None
Hi Dr. Wintemute,

Thanks for your questions. As you know, ivermectin is an approved drug in Canada only as an antiparasitic. In addition to its antiparasitic properties, in vitro studies have shown it may be effective against viruses.

There are currently some ongoing clinical trials further investigating this but CADTH did a review earlier this year and concluded that with the current evidence, the use of ivermectin is not recommended for the treatment and prevention of COVID-19. "The primary studies identified in this report, including those within the systematic review, were found to have high risk of bias. Therefore, the very low quality of evidence from these studies preclude the ability to draw any strong conclusions as to whether ivermectin could reduce all-cause mortality, improve clinical symptoms, hospitalization, and viral clearance in patients with COVID-19."

Ref: <https://cadth.ca/sites/default/files/covid-19/RC1336%20-%20Ivermectin%20for%20COVID-19%20v6.4.pdf>

Furthermore, the manufacturers of ivermectin, MERCK, even have a position statement that indicates, "we do not believe that the data available support the safety and efficacy of ivermectin beyond the doses and populations indicated in the regulatory agency-approved prescribing information." Their recent analysis identified that use of ivermectin has:

- no scientific basis for a potential therapeutic effect against COVID-19 from pre-clinical studies
- no meaningful evidence for clinical activity or clinical efficacy in patients with COVID-19
- a concerning lack of safety data in the majority of studies

Ref: <https://www.merck.com/news/merck-statement-on-ivermectin-use-during-the-covid-19-pandemic/>

Lastly, according to ScienceTable did a recent review and also concluded that ivermectin is inappropriate for prophylaxis or treatment of COVID-19. "There is some evidence from laboratory experiments that it may prevent viruses from attacking cells. However, ivermectin has not been shown to be a helpful treatment in other viral illnesses; therefore, based on available evidence, we do not recommend it as an antiviral treatment for COVID-19 infection of any severity." They also go on to warn that, "inappropriate use for COVID-19 may make it unavailable for patients who could benefit from its approved use (i.e. patients with serious parasitic infections) and reduce the already limited supply of ivermectin in Canada."

Ref: <https://covid19-scienceable.ca/sciencebrief/ivermectin-to-prevent-disseminated-strongyloides-infection-in-patients-with-covid-19/>

With regard to your other questions, since ivermectin is not approved anywhere for the treatment or prevention of COVID-19, there is no standardized dosage recommendation. The doses used in clinical trials vary. For prophylaxis, some trials used 12mg q4m x4 months while others used 0.4mg/kg as a single dose. For treatment, some trials used ivermectin 12mg once daily x5 days while others used up to 0.4mg/kg as a single dose.

In Ontario, you can fill a prescription of ivermectin for approved indication at any pharmacy but most pharmacies will be very wary of filling an ivermectin prescription at this time.

Hope this answers your questions. Please feel free to reach out if you'd like any additional information.

Sincerely,
Christine