



**Managing Anticoagulation During the COVID-19 Pandemic
Frequently Asked Questions
March 20, 2020**

Below is a list of frequently asked questions (FAQs) related to the care of patients on chronic anticoagulation during the current COVID-19 pandemic caused by SARS-CoV-2 (coronavirus). Please note that this is a rapidly developing area. The local infection patterns, local supply of personal protective equipment, and local guidance must be considered. Please closely follow all advisories from the Public Health Agency of Canada, Health Canada and your local public health organizations.

Health Canada COVID-19 information for health professionals:

<https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals.html#cg>

Public Health Agency of Canada COVID-19 information:

<https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19.html>

Please refer to the Thrombosis Canada Resource Center

(www.thrombosiscanada.ca/Outpatient) for additional resources.

If you have additional questions contact us at info@thrombosiscanada.ca

1) What can providers managing anticoagulation do to minimize exposure risk for our patients?

For patients taking warfarin and requiring INR lab tests, providers should review and (as required) develop processes for how to minimize person-to-person exposure risk. This might include reviewing screening protocols with any lab that your patients frequently visit to ensure that anyone with symptoms is appropriately isolated. This might also include re-assessing which patients can be managed by phone vs. in-person visits.

Given that the labs we routinely monitor in anticoagulated patients do not require fasting, advising patients to get their labs checked at lower-volume times of day may help avoid crowded waiting rooms.

Providers managing anticoagulation should encourage patients to avoid presenting to the emergency room for minor bleeding issues that can be addressed at home or with

phone support. These include minor cuts, bruises, and nosebleeds. The Michigan Anticoagulation Quality Improvement Initiative (MAQI2) has online resources for patients on how manage many common minor bleeding issues at home:

[Nosebleeds](#)

[Cuts](#)

[Bruises](#)

[Stool, Urine or Vagina](#)

2) Should I delay INR testing for my patients?

The frequency of INR testing can be reduced to every 12 weeks for patients with consistently stable INRs. The American College of Chest Physicians Guidelines (2012) defines stable INRs as at least 3 months of consistent INR results with no need for warfarin dose adjustment. Extending or delaying testing for unstable patients or out of range INR tests cannot be routinely recommended. In this case, the patient should be contacted to identify and remedy potential contributors to out-of-range test results including (but not limited to) the following: (i) confirm the medication is being taken at the correct dose and frequency, (ii) review current use of prescription (e.g. antibiotics) and over-the-counter (e.g. acetaminophen) medications, and herbal supplements, (iii) clarify any dietary changes and/or alcohol consumption and (iv) inquire about bleeding and thrombotic complications.

3) Has COVID-19 been shown to impact the INR or other routine coagulation studies?

Disseminated intravascular coagulopathy (DIC) is a complication of severe COVID-19. Patients with DIC exhibit abnormal coagulation tests (prolonged PT, elevated INR), low fibrinogen and high D-dimer. In hospitalized patients with COVID-19 in Wuhan, China coagulopathy occurred in 19% and DIC occurred in 9% (Tang N, et al. J Thromb Hemost 2020;00:1–4; [Zhou F, et al. Lancet 2020](#)). Changes in coagulation laboratory parameters are associated with multi-organ dysfunction, and DIC is associated with worse survival. The ISTH DIC Score can be found here <https://reference.medscape.com/calculator/dic-score>. At this time, there are no available data on the impact of COVID-19 on coagulation tests among community dwelling individuals with milder infections.

4) What do we need to consider for patients on chronic anticoagulation who may get a mild form of COVID-19 (the infection caused by coronavirus)?

As with any acute illness, the INR may be impacted for warfarin-treated patients. This is especially true if there is diminished dietary intake and/or diarrheal illness. Providers managing warfarin should also monitor for drug interactions that may impact the INR. This may include medications used during acute illnesses such as acetaminophen (e.g., doses of 1.3-2 g/day for multiple consecutive days) or antibiotics (for bacterial infections). Direct oral anticoagulants (DOACs) have fewer drug interactions than warfarin (e.g., no interaction with acetaminophen). Consult the Thrombosis Canada individual anticoagulant guide for additional drug specific information.

5) What strategies can be considered for patients who are unable to present to a clinic or lab for INR testing because they are currently on in-home quarantine?

Providers managing warfarin should assess whether a patient's INR is sufficiently stable to wait the isolation or quarantine period before the next INR is required. For these patients ensure they are educated on when to contact the provider/medical system (e.g., bleeding). For patients who will require an INR during isolation or quarantine period, contact your local laboratory or Health Authority as required for further direction.

6) How can we incorporate telehealth visits for warfarin management for our patients?

Phone and/or virtual (web-based) assessments should be used as much as possible to minimize potential exposure and safeguard the health of patients and healthcare providers. The availability and logistics of these strategies will vary depending on local resources and clinical context. In Ontario, physicians can register at www.otnhub.ca for eVisits (virtual visit and scheduling platform) and eConsults (electronic platform for sending and receiving referrals from healthcare providers).

7) Is there any reason to be concerned that point-of-care INR tests (lab-based or clinic based) would be unreliable in the setting of COVID-19 infection?

At this time, there is no evidence to suggest that COVID-19 would impact INR test results any differently than other infections. Institutions should follow their current policies for checking out-of-range POC INR results with venipuncture INR lab tests.

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