

## Should COVID-19 vaccine be given to patients taking oral anticoagulants?

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Patients and healthcare providers may be uncertain whether patients receiving oral anticoagulants should receive a COVID-19 vaccine.

Some of this uncertainty may stem from precautionary statements that appear in the product monographs for both the Pfizer-BioNTech and Moderna COVID-19 vaccines.(1,2)

**Product monograph statements** The Pfizer-BioNTech vaccine product monograph states that, "Individuals receiving anticoagulant therapy or those with a bleeding disorder that would contraindicate intramuscular injection should not be given the vaccine unless the potential benefit clearly outweighs the risk of administration."(1)

The Moderna vaccine product monograph states that, "As with other intramuscular injections, Moderna COVID-19 vaccine should be given with caution in individuals with bleeding disorders, such as hemophilia, or individuals currently on anticoagulant therapy, to avoid the risk of hematoma following the injection, and when the potential benefit clearly outweighs the risk of administration."(2)

**Thrombosis Canada statement** Thrombosis Canada recently addressed this issue, which is important since an estimated one million people in Canada are currently receiving anticoagulant therapy. Many of these individuals are elderly and are likely at higher risk for COVID-19-related health problems.(3)

Thrombosis Canada maintains that anticoagulant therapy should *not* be a barrier to the administration of a COVID-19 vaccine. Any bleeding risk due to anticoagulant therapy, which may lead to hematoma formation (muscle bruise) at the vaccine injection site, is greatly outweighed by the benefits of the vaccine.(3)

According to Thrombosis Canada, patients taking an anticoagulant or antiplatelet agent should be encouraged to receive vaccinations, including COVID-19 vaccine. This would apply to warfarin, direct oral anticoagulants (DOAC—apixaban, dabigatran, edoxaban or rivaroxaban) and antiplatelet agents used because of a previous heart attack or stroke (e.g., acetylsalicylic acid, clopidogrel, ticagrelor). Although there is a small risk of hematoma (bruising) at the vaccination injection site, no serious effects are expected. Application of prolonged pressure (for three to five minutes) at the injection site following vaccination will help to reduce bruising.(3)

Thrombosis Canada also maintains that patients receiving warfarin do not need an extra INR test to monitor blood clotting prior to receiving a vaccination. INR testing should continue to be performed according to the patient's usual schedule.(3)

The National Advisory Committee on Immunization (NACI) supports Thrombosis Canada's position. In their Dec. 23, 2020 recommendations on the use of COVID-19 vaccines, the NACI states that "individuals receiving long-term anticoagulation are not considered to be at higher risk of bleeding complications following immunization and may be safely immunized without discontinuation of their anticoagulation therapy."(4)

Thrombosis Canada will continue to follow this issue as COVID-19 vaccines are more widely used across Canada. If any changes to their guidance are needed, they will be reported on the [Thrombosis Canada website](#).(3)

### References

1. Pfizer Canada. Pfizer-BioNTech COVID-19 vaccine (COVID-19 mRNA vaccine) product monograph. Kirkland, QC; December 9, 2020. [https://pdf.hres.ca/dpd\\_pm/00059220.PDF](https://pdf.hres.ca/dpd_pm/00059220.PDF) (accessed January 7, 2021).

2. Moderna Therapeutics. Moderna COVID-19 vaccine (mRNA-1273 SARS-CoV-2 vaccine) product monograph. Cambridge, MA; December 23, 2020. [https://pdf.hres.ca/dpd\\_pm/00059386.PDF](https://pdf.hres.ca/dpd_pm/00059386.PDF) (accessed January 7, 2021).
  3. Thrombosis Canada. Thrombosis Canada encourages patients on anticoagulation to get the COVID-19 vaccine. December 22, 2020. <https://thrombosiscanada.ca/wp-uploads/uploads/2020/12/National-Release-VACCINES-Final-Dec-22.pdf> (accessed January 7, 2021).
  4. National Advisory Committee on Immunization (NACI). Recommendations on the use of COVID-19 vaccine(s). December 23, 2020. [https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines.html?hq\\_e=el&hq\\_m=2169386&hq\\_l=1&hq\\_v=42f995eed6#a7](https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines.html?hq_e=el&hq_m=2169386&hq_l=1&hq_v=42f995eed6#a7) (accessed January 7, 2021).
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