



SCIENCE BRIEFS—LAY SUMMARY

Vaccine-Induced Prothrombotic Immune Thrombocytopenia (VIPIT) Following AstraZeneca COVID-19 Vaccination

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About Us: The Ontario COVID-19 Science Advisory Table is a group of scientific experts and health system leaders who evaluate and report on emerging evidence relevant to the COVID-19 pandemic to inform Ontario's response. Our mandate is to provide weekly summaries of relevant scientific evidence for the COVID-19 Health Coordination Table of the Province of Ontario, integrating information from existing scientific tables, Ontario's universities and agencies, and the best global evidence. The Science Table summarizes its findings for the Health Coordination Table and the public in [Science Briefs](#).

The Drugs & Biologics Clinical Practice Guidelines Working Group is a group of clinicians and scientists with recognized expertise in drugs, biologics, and clinical care. The Working Group will evaluate existing scientific data, disease epidemiology, drug availability, and implementation issues in order to develop Clinical Practice Guidelines for the treatment of COVID-19 using drugs and biologics. The Working Group reports its findings to the public and the Science Table. Its findings are also summarized in [Science Briefs](#).

Correspondence to: Secretariat of the Ontario COVID-19 Science Advisory Table

Lay Summary

What do we know so far?

The United Kingdom, European Union, and Scandinavian countries have reported that the AstraZeneca COVID-19 vaccine appears to be associated with rare cases of serious blood clots, including blood clots in the brain. These blood clots have two important features: they occur 4 to 20 days after vaccination, and they are associated with low platelets (tiny blood cells that help form blood clots to stop bleeding). Doctors are calling this “vaccine-induced prothrombotic immune thrombocytopenia” (VIPIT). VIPIT seems to be rare, occurring in anywhere from 1 in every 15,000 to 1 in 1 million people.

Health Canada has stated that the AstraZeneca COVID-19 vaccine continues to be safe and effective at protecting Canadians against COVID-19 and encourages people to get immunized with any of the COVID-19 vaccines that are authorized in Canada.

Are certain people more likely to get VIPIT?

VIPIT is very rare. At this time, we do not know if certain patients are more likely to get VIPIT. So far, most of the cases from Europe have occurred in women under age 55 – but many of these countries used more of their initial AstraZeneca vaccine supply in women under age 55. We do not believe that VIPIT is more common in people who have had blood clots before, people with a family history of blood clots, people with a low platelets, or pregnant women, because VIPIT does not develop through the same process as usual types of bleeding or clotting problems.

What should you look out for if you received the AstraZeneca COVID-19 vaccine?

You should speak to a health care professional if you have unusual or severe symptoms after any COVID-19 vaccine. If you experience the following symptoms between 4 and 20 days after vaccination, it might indicate that you have VIPIT: a severe headache that does not go away; a seizure; difficulty moving part of your body; new blurry vision that does not go away; difficulty speaking; shortness of breath; chest pain; severe abdominal pain; new severe swelling, pain, or colour change of an arm or a leg. These symptoms can also be a sign of other serious conditions and should be assessed in an emergency department.

What should you do if you have concerning symptoms after the AstraZeneca COVID-19 vaccine?

If your symptoms are not severe, you can see (virtually or in-person) your primary care professional. If you have severe symptoms, you should go to the nearest emergency

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department immediately. You should tell the health care providers who see you that you received the AstraZeneca COVID-19 vaccine and give them the date you got vaccinated. If the healthcare professional who assesses you is concerned, you may have scans and additional bloodwork collected.

Do healthcare professionals know how to diagnose and treat VIPIT?

Yes. Health care professionals and scientists in Ontario have been working with experts in Canada, and around the world, to better understand VIPIT. The Ontario COVID-19 Science Advisory Table has summarized what we know about VIPIT right now and has published guides for healthcare professionals outside and inside the hospital, to help them diagnose and treat VIPIT.

Why is Ontario still using the AstraZeneca COVID-19 vaccine?

Health Canada reviewed the AstraZeneca COVID-19 Vaccine, as well as a similar vaccine called COVISHIELD. They have stated that the benefits in protecting Canadians from COVID-19 continue to outweigh the risks and encourage Canadians to get immunized with any of the COVID-19 vaccines that are authorized in Canada when they are eligible. Keep in mind that COVID-19 has killed over 15,000 Canadians so far, that about 1 in 100 Canadians who get COVID-19 end up needing intensive care, and that 1 in 5 Canadians who are hospitalized with COVID-19 develop blood clots. Currently Canada is experiencing a third wave of COVID-19. VIPIT is very rare, while the AstraZeneca vaccine has proven effective at reducing severe illness from COVID-19. Health care professionals, scientists, and government agencies in Ontario – and around the world – will continue to monitor the safety of this and all vaccines.

Could the COVID-19 vaccine available in Ontario cause VIPIT?

There have been no confirmed cases of VIPIT with any other COVID-19 vaccine.