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May 21, 2021

**MEMORANDUM****TO: Health Care Providers****RE: UPDATE: Providing Second Dose of the AstraZeneca COVID-19 vaccine in Ontario.**

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This correspondence follows that from May 14<sup>th</sup>, 2021 regarding pausing first dose administration of the AstraZeneca COVID-19 vaccine (AZ)/ COVISHIELD vaccine in Ontario. The decision was made out of an abundance of caution and due to an observed increase of a rare blood clotting condition, known as Vaccine-induced Immune Thrombotic Thrombocytopenia (VITT), associated with the AstraZeneca COVID-19 vaccine.

Today I want to share the approach to second doses for those who received a first dose of AstraZeneca COVID-19 vaccine (AZ)/ COVISHIELD vaccine.

In Ontario, at this time patients *may choose to have* a second dose of AstraZeneca COVID-19 vaccine at a 12 week interval, or wait to determine which vaccine they may receive at a later date when more data is available on mixed vaccine series (e.g., having a first dose of AZ and a second dose of one of the mRNA vaccines). Consent for the second dose will be informed through understanding the benefits and risks of the choices, supported by discussion with a health care provider. It is very important that people receive both doses to complete their vaccine.

*If patients choose to receive AstraZeneca COVID-19 vaccine as their second dose, an interval at or after 12 weeks provides good protection.*

- The reported risk of VITT after the second dose of AstraZeneca COVID-19 vaccine is much lower than observed following the first dose.
- Data from the United Kingdom (UK) suggests that the rate of VITT following the second dose is approximately one in 600,000 doses administered. This is based on 15 events of VITT following approximately 9 million second doses of AstraZeneca COVID-19 vaccine administered in the UK.\*

During the last week of May, 2021 to ensure that we make best use of available vaccine, some patients will be offered a second dose at an interval of no less than 10 weeks. This offer will be made to patients who were first in Ontario to receive their AstraZeneca COVID-19 vaccination. This will begin in the regions where the AstraZeneca COVID-19 vaccine was initially [launched in March 2021](#). Clinical trial data demonstrate that AstraZeneca COVID-19 vaccine is most effective with a dose interval of at least 12 weeks, i.e. it provided an estimated 80% protection against symptomatic disease. Data arising from a dose interval of 9-12 weeks demonstrated protection estimated at 69%\*\*.

Eligible individuals are encouraged to contact the pharmacy or primary care provider where they received their first dose to book an appointment beginning the week of May 24, 2021. Primary care settings and pharmacies may also be reaching out to eligible Ontarians.

*If patients choose to wait until more is known about the safety and efficacy of mixing vaccine products in a series, they may choose to: 1) receive a second dose of AstraZeneca COVID-19 vaccine at that time ( $\geq 12$  weeks) or 2) if proven to be a safe and effective option, have a second dose of one of the mRNA vaccines. A second dose of an mRNA vaccine would be scheduled at an interval of 16 weeks from their first dose.*

- While the National Advisory Committee on Immunization (NACI) is not currently recommending that vaccines of different types (e.g., mRNA vaccine and viral vector vaccine) be used, a clinical trial is underway that is addressing this question with results to be reported in June 2021.
- There is emerging international data on mixed vaccines series with a recent Spanish study which provided a first dose of the AstraZeneca COVID-19 vaccine followed by a second dose of the Pfizer vaccine where participants mounted a robust immune response following the second dose, and demonstrated mild to moderate side effects commonly observed after COVID-19 vaccines and with no hospital admissions

All emerging international evidence on mixed vaccine series will be carefully monitored to inform recommendations to Ontarians.

Please note, patients who have allergies to components of the mRNA vaccines will be able to access the AstraZeneca COVID-19 vaccine as needed. These patients should be evaluated by an allergist-immunologist.

A supplemental document has been developed that patients who received a first dose of the AstraZeneca COVID-19 vaccine must review before they receive a second dose of vaccine. This review must be documented formally within COVaxON or through a supplemental process for record keeping if COVaxON is not being used.

Sincerely,

David C. Williams, MD, MHSc, FRCPC  
Chief Medical Officer of Health

c: Helen Angus, Deputy Minister of Health  
Dr Dirk Huyer, Clinical Guidance and Surveillance, Workstream Vaccine Distribution Task Force

Alison Blair, Associate Deputy Minister  
Patrick Dicerni, Assistant Deputy Minister

\*To learn more about what is currently known about the risk of VITT after a second dose of AstraZeneca COVID-19 vaccine, see this report from the United Kingdom: <https://www.gov.uk/government/publications/coronavirus-covid-19-vaccine-adverse-reactions/coronavirus-vaccine-summary-of-yellow-card-reporting>

\*\*To learn more about the protection AstraZeneca COVID-19 vaccine provides against COVID-19 see the National Advisory Committee on Immunization's (NACI) [Recommendations on the use of COVID-19 vaccines - Canada.ca](https://www.canada.ca/en/health-canada/services/immunization/naci/recommendations-on-the-use-of-covid-19-vaccines.html)