

Best Practice Recommendations for Community Pharmacists providing AstraZeneca COVID-19 Vaccine Immunizations

Update to York Region pharmacists as of April 3, 2021

As of April 1, 2021, the Ontario Government has expanded the roll out of COVID-19 vaccines to over 350 additional [pharmacies](#) across the province, including select pharmacies in York Region. The selected pharmacy locations will be offering the AstraZeneca vaccine to individuals aged 55 and over.

Vaccinations with the AstraZeneca vaccine at pharmacies require an appointment to be made in advance. Eligible adults aged 55 and over who are interested in booking an appointment, can visit ontario.ca/pharmacycovidvaccine to find a participating pharmacy and can contact the pharmacy to make an appointment.

Pharmacy locations were selected by the Ministry of Health (MOH) based on several criteria, including current enrollment in the 2020/2021 Universal Influenza Immunization Program (UIIP) in order to balance vaccine availability and eliminate the need for any additional inspections by Public Health Units. No new UIIP enrollment will be undertaken at this time.

The COVaxON system will be mandatory for pharmacies taking part in the COVID-19 vaccine administration program. For COVaxON training or support, please contact your corporate office or the Ontario Pharmacists Association (independent pharmacies). You may reach the COVaxON IT Support desk at 1-866-272-2794 or email inquiries to: COvaxonsupport@ontario.ca

Pharmacies will receive their COVID-19 vaccines and vaccine ancillary supplies through pharmacy distributors, McKesson or Shoppers' Drug Mart (SDM). Please connect with your distributor for questions regarding vaccine supply. Pharmacies may order PPE from the provincial stockpile (if needed) using the existing UIIP process.

Participating pharmacies must continue with routine logging of vaccine refrigerator temperatures twice daily and reporting temperatures outside of +2°C to +8°C to York Region Public Health as per MOH's Vaccine Storage and Handling Guidelines.

To support pharmacy professionals, York Region Public Health is providing the following best practice recommendations that will guide you in proper storage, handling and administration of the AstraZeneca COVID-19 vaccine and infection prevention and control measures at your pharmacy.

Important Information on AstraZeneca COVID-19 Vaccine

AstraZeneca COVID-19 Vaccine/COVISHIELD Vaccine (COVID-19 (ChAdOx1-S [recombinant]))	
Type of vaccine	Non-replicating viral vector (ChAd)
Date of authorization in Canada	February 26, 2021
Authorized ages for use	18 years of age and older. Note: Although the vaccine has been approved for individuals 18 years of age and older, National Advisory Committee on Immunization (NACI) recommends that AstraZeneca COVID-19 vaccine should not be used in adults under 55 years of age at this time.
Dose	0.5 mL (5 x 10 ¹⁰ viral particles)
Schedule	2 doses
Recommended Interval	4 months* To increase the number of individuals benefiting from the first dose of vaccine, the province is following NACI recommendations to extend the interval for the second dose of COVID-19 vaccine to 4 months after receipt of the first dose.
Booster doses	At present, no evidence for additional boosters after the 2- dose series
Route of administration	Intramuscular (IM) into the deltoid muscle
Nature of the antigen	Transmembrane spike protein
Adjuvant	None
Storage requirements	
Primary storage requirements, pre-puncture	+2 to +8 °C Store in the original carton and protect from light until ready to use. Do not freeze.
Diluent	No
Formats available	Multi-dose vial (8- and 10-dose presentations). Preservative free.
Usage limit post-puncture	6 hours when stored at room temperature (up to +25 or +30°C depending on product) OR 48 hours when stored in a refrigerator (+2 to +8°C). A punctured vial that has been kept at room temperature can be returned to the refrigerator. However, the cumulative storage time at room temperature must not exceed 6 hours and the total cumulative storage time post-puncture must not exceed 48 hours. After this time, the vial must be discarded. Mark the vial with the date and time it was first punctured and discard at the appropriate time.
Drug Interactions	No interaction studies have been performed.

Like all vaccines, the AstraZeneca COVID-19 vaccine has specific storage and handling requirements that must be adhered to maintain its effectiveness. Failure to adhere to vaccine handling and cold chain requirements may reduce vaccine potency (resulting in lack of protection against COVID-19) and/or increased local reactions at the site of the vaccine administration. The loss of vaccine effectiveness due to cold chain exposures to adverse conditions is cumulative, permanent and irreversible.

Dose Preparation

AstraZeneca COVID-19 vaccine is a colourless to slightly brown, clear to slightly opaque solution. The vaccine should be inspected visually for particulate matter and discolouration prior to administration. Discard the vial if the solution is discoloured or visible particles are observed.

Perform proper hand hygiene before handling the vaccine. Prepare the vaccine on a clean surface. Do not shake the vial before use. Do not reconstitute, dilute, or mix the vaccine with other medicinal products.

Using aseptic technique, cleanse the vial stopper with a single-use antiseptic swab. Allow to dry before inserting a new needle and new syringe into the vial. All needles and syringes are for single use only. Never re-enter a vial with a used needle or used syringe.

Withdraw a 0.5 mL dose of the vaccine from the vial. Once the vaccine is drawn up into the syringe, the needle should be immediately withdrawn from the vial.

The dose in the syringe should be used promptly. Do not pre-draw or store vaccine doses in syringes. There is no available stability data on storing AstraZeneca COVID-19 vaccine in syringes that have been pre-drawn in advance.

When withdrawing subsequent doses, puncture the vial stopper at a different area each time to avoid coring of the rubber.

It is normal for solution to remain in the vial after withdrawing the final dose. When a full dose cannot be extracted from a vial, the remaining solution should be discarded. This leftover solution is not considered wastage. Do not pool solution obtained from two or more vials to comprise a dose of vaccine.

Administration

Before immunization, cleanse the skin with a single-use antiseptic swab and allow to dry. Do not wipe the alcohol off the client's skin. Refrain from touching other body parts or surfaces while administering vaccine to prevent transfer of contaminants.

AstraZeneca COVID-19 vaccine should be administered by the intramuscular (IM) route only. The preferred site is the deltoid muscle of the upper arm. Do not inject the vaccine intravascularly, subcutaneously or intradermally.

The AstraZeneca COVID-19 vaccine should not be given simultaneously with other vaccines.

There is no data available on the interchangeability of AstraZeneca COVID-19 vaccine with other COVID-19 vaccines to complete the vaccination series. Individuals who have received one dose of AstraZeneca COVID-19 vaccine should receive a second dose of AstraZeneca COVID-19 vaccine to complete the vaccination series.

Post-Immunization

- Do not recap needles. Always engage the needle's safety feature, preferably not with your fingers, to prevent needlestick injuries
- Dispose of used needle and syringes immediately after use in a puncture-resistant sharps container which is to be accessible at point of use
- As part of post-immunization monitoring, be prepared to manage any potential anaphylactic reaction in the vaccine recipient

Physical Distancing

- Maintain physical distancing of two metres (6 feet) whenever possible
- Determine a limit on the number of individuals who may enter the pharmacy at any given time to avoid overcrowding
- Set appointments at 15-minute intervals to allow sufficient time for proper screening, vaccine preparation, area cleaning and disinfection between immunizations
- Limit the immunization area to one client and one essential caregiver, if required
- Apply markers and indicators on the floor to maintain one-way traffic flow and facilitate proper physical distancing of two metres (6 feet)
- Use a separate entrance and exit, if possible
- Utilize physical barriers such as plexiglass barriers to minimize contact between clients and pharmacy staff
- Maximize ventilation in the immunization area (e.g., keeping windows and/or counseling room door opened) to decrease concentration of aerosols that are suspended in the air and reduce risk of viral spread
- Arrange seating two metres (6 feet) apart in the post-immunization waiting area

Personal Protective Equipment (PPE)

Ensure you have an adequate supply of PPE and it is easily accessible in each immunization area.

Medical Masks and Eye Protection:

- When immunizing, you should wear both a medical mask and eye protection (face shield or safety goggles)
- Eyeglasses are not an appropriate substitute for face shield or safety goggles
- Face shield or safety goggles must be clean and disinfected after each immunization
- Masks should be replaced if damp, soiled or damaged
- Vaccine recipients should also wear a mask or face covering

In addition to medical masks and eye protection, conduct a personal risk assessment prior to every client interaction to determine need for additional PPE.

Examination Gloves:

- Gloves are not required during immunization unless there is contact with blood, bodily fluids, non-intact skin or if the immunizer has non-intact skin.
- If gloves are worn, perform hand hygiene before putting on a new pair of gloves. Dispose of gloves immediately after each immunization and perform hand hygiene after glove removal.
- Do not apply hand sanitizer on gloves. Use of hand sanitizer on gloves for repeated use is not recommended.

Gowns:

- Gowns are not required during immunization unless there is a potential for the immunizer's clothing to become contaminated such as when managing an adverse event post immunization e.g. a client who has vomited after receiving the vaccine.
- If a gown is worn, dispose of gown immediately after immunization and perform hand hygiene after gown removal.

Be sure to follow best practices, including hand hygiene, before donning and after removal of PPE.

Infection Prevention and Control (IPAC) Measures

- Perform hand hygiene before handling vaccines and before and after each immunization. If handling client belongings (e.g. health cards), hand hygiene is performed before and after handling.
- Alcohol-based hand rub is the preferred method of hand hygiene, unless hands are visibly soiled
- Wash your hands regularly with soap and water for 20 seconds
- Conduct a COVID screening assessment test before immunizing
- Use a disinfectant that has a drug identification number (DIN) and is approved for use in healthcare settings. Cleaning should be performed prior to disinfection unless the disinfectant is a one-step cleaner-disinfectant product. Always ensure surfaces are wet for the required contact time for proper disinfection, as stated on the product label.
- Perform routine cleaning and disinfection in frequently visited areas, such as the registration area and the post-immunization waiting area as well as and high touch surfaces including chairs and doorknobs at least twice a day
- Clean shared equipment, such as pens and clipboards after each use
- Place alcohol-based hand sanitizers containing 60-90% alcohol at various areas of the pharmacy for staff and client use
- Clean and disinfect immunization area after each immunization

Vaccine-Induced Prothrombotic Immune Thrombocytopenia (VIPIT) following AstraZeneca COVID-19 vaccination

Both your pharmacy and the vaccine recipient should be aware the potential for Vaccine-Induced Prothrombotic Immune Thrombocytopenia (VIPIT) following AstraZeneca COVID-19 vaccination. The NACI recommends that anyone receiving the AstraZeneca COVID-19 vaccine should be informed of this potential adverse event and advised to seek immediate medical attention if they develop symptoms of thromboembolism and/or thrombocytopenia between days 4 and 20 following receipt of the AstraZeneca vaccine.

Symptoms to be vigilant for include: shortness of breath, chest pain, leg swelling, persistent abdominal pain, neurological symptoms including sudden onset of severe or persistent worsening headaches or blurred vision, skin bruising (other than at the site of vaccination) or petechiae.

Resources

For more information on requirements of participation, eligibility and reimbursements, and resources to help support implantation, please visit the [Ministry's website](#).

Additional resources supporting pharmacists and pharmacies on professional practice and safety requirements are also available on the websites for the [Ontario College of Pharmacists](#) and at request from the [Ontario Pharmacists Association](#).

- Government of Canada - [Planning Guidance for Immunization Clinics for COVID-19 Vaccines](#)
- Public Health Ontario (PHO) - [Infection Prevention and Control \(IPAC\) Assessment for Primary Care, Specialty and Walk-in Clinics during COVID-19 Checklist](#)
- PHO- [Infection Prevention and Control \(IPAC\) Guidance for COVID-19 Immunization Clinics](#)
- PHO - [Cleaning and Disinfection of Reusable Eye Protection](#)
- PHO - [Putting on Personal Protective Equipment \(PPE\)](#)

Contact York Region Public Health

If you are seeking further information about best practice recommendations related to COVID-19 immunization, please contact York Region Public Health's health care professional line at 1-877-464-9675 ext. 77280.