Publicly Funded Respiratory Virus Immunizations: Information for Health Care Providers 2024-25

Influenza, COVID-19, and Respiratory Syncytial Virus (RSV) Immunizations

September 2024

NOVA SCOTIA

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Purpose of this document

Respiratory virus vaccines including influenza and COVID-19 vaccines offer protection to many age groups, particularly the very young and the very old who are at risk of severe respiratory disease. Respiratory syncytial virus (RSV) vaccine is a new addition to Nova Scotia's publicly funded immunization program and is being provided to older adults in long term care.

The purpose of this document is to communicate the essential vaccine information to all health care professionals administering influenza, COVID-19 and RSV vaccines.

Immunization Provider Accountabilities

Immunization providers need to minimize vaccine wastage when administering vaccines.

Maintenance of Vaccine Cold Chain

Cold chain is the process used to maintain required temperatures for vaccines. All vaccines must always be stored within +2°C to +8°C during transport or storage, from the Bio-Depot through to the point they are administered to an individual.

The integrity of the cold chain depends on three essential elements:

- the people who manage vaccine manufacturing, storage, and distribution and those managing the cold chain at the provider level.
- the systems and processes providers use to ensure they monitor the vaccine storage conditions and actions taken if the vaccines are exposed to temperatures outside the required range.
- the equipment used for storing, transporting, and monitoring vaccines from the time the vaccine is delivered to an immunization provider to the time the vaccine is administered to an individual.

Vaccine coolers for pick up should have adequate capacity and packing supplies including ice packs, insulating layers, etc. to transport the vaccine. These considerations could mean that more than one pick-up time may be required to accommodate some orders. Please review the Infographic: A Visual Guide to Packing a Vaccine Cooler Properly for information on transporting biologicals.

All cold chain breaks must be reported to the local Public Health Office by emailing publichealthvaccineorders@nshealth.ca or contacting 902-481-5813. Following a cold chain breach, the primary concern is decreased vaccine potency. Vaccines exposed to a cold chain break must be bagged, dated and labelled **"Do Not Use"** and refrigerated in a monitored and functioning vaccine fridge while waiting to receive direction from Public Health on use of the affected vaccines. For more information about safe storage and handling, see the National Vaccine Storage and Handling Guidelines for Immunization Providers.

Vaccine Safety and Reporting

Vaccine providers are required by law to report adverse events following immunization (AEFIs) to Public Health. AEFIs are any untoward medical occurrence which follows administration of a vaccine and which does not necessarily have a causal relationship with the use of a vaccine. The adverse event may be any unfavorable or unintended sign, abnormal laboratory finding,

symptom or disease. See the following for more information: It's the Law: Report Adverse Events.

Competency

Immunizers are accountable to follow their respective professional guidelines (e.g. Nova Scotia College of Nursing (NSCN), College of Physicians and Surgeons of Nova Scotia (CPSNS), and Nova Scotia College of Pharmacists (NSCP) with respect to immunization competency and professional responsibility.

Safety

- Epinephrine must be readily available during vaccine administration.
- Clients must be monitored for at least 15 minutes post-immunization.
- Documentation of vaccine administration must include the lot number of the vaccine in case of recall or adverse event.

For more information, please consult the Canadian Immunization Guide.

Influenza Vaccines

Everyone should receive 1 dose of influenza vaccine per season other than children 6 months to less than 9 years of age, not previously immunized; who require 2 doses of influenza vaccine, with a minimum of 4 weeks between doses. Influenza vaccination is particularly important for some groups. Please see List 1: Groups for whom influenza vaccination is particularly important.

There are two types of publicly funded influenza vaccine this year; standard dose and enhanced. Enhanced vaccines include high-dose and adjuvanted influenza vaccines.

Standard Dose Influenza Vaccines

Standard dose influenza vaccines are quadrivalent (QIV) formulation.

2024-25 Strains included in Standard Dose Quadrivalent Influenza Vaccines

Each 0.5 mL dose of vaccine contains 15 micrograms haemagglutinin of each of the following four influenza virus strains:

- 15 µg HA - A/Victoria/4897/2022 (H1N1)pdm09-like virus (A/Victoria/4897/2022 IVR-238)
- 15 µg HA - A/Thailand/8/2022 (H3N2)-like virus (A/Thailand/8/2022 IVR-237)
- 15 µg HA - B/Austria/1359417/2021-like virus (B/Austria/1359417/2021 BVR-26) from the B/Victoria/2/87 lineage
- 15 µg HA - B/Phuket/3073/2013-like virus (B/Phuket/3073/2013) from the B/Yamagata/16/88 lineage

Standard dose influenza is a multi-dose vial format which is the same as QIV 2023-2024 fall/winter respiratory season. Please see Table 1 A for vaccine brand names.

Enhanced Influenza Vaccines

For people 65 years and older, NACI recommends either the Fluad® adjuvanted trivalent vaccine or the Fluzone® High-Dose quadrivalent vaccine. High-dose and adjuvanted influenza vaccines are designed to enhance immune response. Nova Scotia will be using Fluad® as the enhanced influenza vaccine for seniors in 2024-25.

2024-25 Influenza Strains included in the adjuvanted Fluad® Trivalent Vaccine

- 15 µg HA - A/Victoria/4897/2022 IVR-238 (A/Victoria/4897/2022 (H1N1) pdm09-like virus)
- 15 µg HA - A/Thailand/8/2022 IVR-237 (A/Thailand/8/2022 (H3N2)-like virus)
- 15 µg HA - B/Austria/1359417/2021 BVR-26 (B/Austria/1359417/2021-like virus)

Fluad® packaging dimensions are 12.7 cm x 6.35 cm x 9.4 cm per box which is 1.5 times bigger than High-Dose Fluzone® used last year.

Other Considerations

After careful review of clinical and post-licensure safety data, NACI has concluded that egg-allergic individuals may be vaccinated against influenza with the full dose using any influenza vaccine including egg-based vaccines without prior influenza vaccine skin test. See Table 1A and Table 1B for a list of vaccines that include egg. The observation period post-immunization is 15 minutes. If a potential vaccine allergy is a concern, a 30 minute observation period is recommended and detailed in the Canadian Immunization Guide, post-vaccination observation section.

Individuals known to have Guillain-Barre syndrome (GBS) without other known cause within 6 weeks of an influenza vaccine should avoid subsequent influenza vaccine. The potential risk of GBS attributed to the vaccine must be balanced against the risk of GBS from influenza infection and consideration given to the benefits of influenza immunization.

Avian Influenza

Outbreaks of avian influenza A (H5N1) in domestic and wild birds and some mammals have recently emerged in Nova Scotia and elsewhere in Canada. Government authorities are responding to the outbreak of influenza A(H5N1) in farmed birds and wildlife across Canada in collaboration with provincial departments as needed. For more information see The Government of Canada.

The public health concern related to influenza A (H5N1) pertains to both the health risk to the individual exposed as well as the potential risk of seasonal human and influenza A(H5N1) virus co-infection with possible viral reassortment/adaptations that could lead to sustained human to human transmission.

NACI recommends that individuals likely to have significant exposure to influenza A (H5N1) through interactions with birds or mammals (such as poultry, livestock, slaughterhouse and processing plant workers, wildlife officers/researchers, and veterinarians) should receive seasonal influenza vaccine. While these vaccines do not provide protection against infection with influenza A(H5N1) viruses, they may reduce the risk of seasonal human and influenza A(H5N1) virus co-infection and possible viral reassortment.

Table 1A: Standard Dose Influenza Vaccines for 2024-25

Product Name	Flulaval Tetra Quadrivalent	Fluzone® Quadrivalent	Afluria® Tetra Quadrivalent	Flucelvax® Quadrivalent NEW
Manufacturer	**GSK**	**Sanofi Pasteur**	**Seqirus**	**Seqirus**
Vaccine Type	IIV4-SD (split virus)	IIV4-SD (split virus)	IIV4-SD (split virus)	IIV4-cc (subunit)
Dose and Route of Administration	0.5 mL dose - IM	0.5 mL dose - IM	0.5mL dose - IM	0.5mL dose - IM
Authorized Ages for Use	6 months and older	6 months and older	5 years and older	6 months and older
Antigen Content for each vaccine strain	15 µg HA/0.5 mL dose	15 µg HA/0.5 mL dose	15 µg HA/0.5 mL dose	15 µg HA/0.5 mL dose
Adjuvant	None	None	None	None
Formats Available in Nova Scotia	5 mL multi-dose vial (10 doses/vial)	5 mL multi-dose vial (10 dose/vial)	5 mL multi-dose vial (10 dose/vial)	Single dose pre-filled syringe without attached needle
Post-Puncture Shelf Life for Multi-Dose Vials	28 days	28 days	28 days	N/A
Product Stability	Store between +2°C to +8°C. Must not be frozen and must be protected from light	Store between +2°C to +8°C. Must not be frozen and must be protected from light	Store between +2°C to +8°C. Must not be frozen and must be protected from light	Store between +2°C to +8°C. Must not be frozen and must be protected from light
Thimerosal	Yes	Yes	Yes	No
Antibiotics (Traces)	None	None	Neomycin Polymyxin B	None
Egg protein (traces)	Yes	Yes	Yes	No mammalian cell culture

**Adapted from: Appendix B of the NACI Statement on Seasonal Influenza Vaccine for 2024–2025*

For further information refer to product monographs

Table 1B: Enhanced Influenza Vaccine for Individuals 65 years and older

Product Name	Fluad® Trivalent (Individuals 65 years and older)	Fluzone® High-Dose (Individuals 65 years of age and older who have allergy to Fluad®)
Manufacturer	**Seqirus (NEW)**	**Sanofi Pasteur**
Vaccine Type	IIV3-adj (subunit)	IIV4-HD (split virus)
Dose and Route of Administration	0.5 mL - IM	0.7 mL- IM
Authorized Ages for Use	65 years and older	65 years and older
Antigen Content for each vaccine strain	15 µg HA/0.5 mL dose	60 µg HA/0.7 mL dose
Adjuvant	MF59	None
Formats Available in Nova Scotia	Packaged as 10 single-dose pre-filled syringes	Single dose pre-filled syringes
Post-Puncture Shelf Life for Multi-Dose Vials	Not applicable	Not applicable
Product Stability	Store between +2°C to +8°C Must not be frozen and must be protected from light	Store between +2°C to +8°C Must not be frozen and must be protected from light
Thimerosal	No	No
Antibiotics (Traces)	Kanamycin Neomycin	None
Egg protein (traces)	Yes	Yes

**Adapted from: Appendix B of the NACI Statement on Seasonal Influenza Vaccine for 2024–2025*

For further information refer to product monographs

COVID-19 Vaccines

Only vaccines containing KP.2, the latest selected strain should be used in 2024-25. Effective August 31, 2024, all XBB.1.5 formulations must not be administered. Please ensure they have been removed from your vaccine fridge.

Novavax and infant/pediatric formulations of Pfizer will not be available for 2024-25. Fall COVID-19 vaccines are interchangeable and there is no longer a brand preference. For example, an individual who previously received Moderna can receive a fall/winter dose of Pfizer or vice versa.

Concurrent COVID-19 vaccine administration with other vaccinations (e.g. routine childhood vaccines and seasonal influenza vaccines) will reduce barriers to immunization and is encouraged. When more than one vaccine is administered at a single visit, they should be administered at different injection sites using separate injection equipment.

This respiratory season, everyone 6 months and older can receive a dose of the updated formulation of KP.2 COVID-19 vaccine. COVID-19 vaccine is particularly important for some groups. For details see: NACI Guidance on the use of COVID-19 vaccines during the fall of 2024.

Ordering Supplies for COVID-19 vaccine delivery

A small supply of immunization supplies is currently available through Shopify. Please order only what you require including low dead volume (LDV) syringes which are used for both Moderna and Pfizer COVID-19 vaccines. These syringes reduce vaccine wastage. Delivery takes around 1 week after you place your order.

Please follow the instructions for accessing these supplies. Orders of the available items can be placed for what is required via the online shopping site https://www.novascotiappe.ca. The generic password to enter is “eaffoo”. Then you will need to sign in or create a new account. If you are creating a new account, please contact Tim Matthews, Gustavo Ferrer or Eileen Rivas de Caccavale once your account is created to gain access to the Community Vaccine Clinics under the email you used to create your account.

Tim.Matthews@nshealth.ca
Gustavo.ferrer@nshealth.ca
Eileen.RivasdeCaccavale@nshealth.ca
NSPPECustSupport@nshealth.ca

Table 2: COVID-19 Immunization schedule for previously unvaccinated individuals by age with KP.2 COVID-19 vaccines

Age Group	Immunization Schedule	Dose	Dose Volume	Recommended Interval
Schedule for those NOT moderately or severely immunocompromised *				
6 months to under 5 years of age*	2 doses Moderna Spikevax®	25 mcg	0.25 mL	8 weeks
5 years of age to 11 years of age	1 dose Moderna Spikevax®	25 mcg	0.25 mL	N/A
12 years of age and older	1 dose Moderna Spikevax®	50 mcg	0.5 mL	N/A
	1 dose Pfizer Comirnaty®	30 mcg	0.3 mL	N/A
Schedule for individuals who are moderately to severely immunocompromised*				
6 months to under 5 years of age*	3 doses Moderna Spikevax®	25 mcg	0.25 mL	4 to 8 weeks
5 years of age to 11 years of age	2 doses Moderna Spikevax® are recommended and a third may be offered	25 mcg	0.25 mL	4 to 8 weeks
12 years of age and older	2 doses Moderna Spikevax® are recommended and a third may be offered	50 mcg	0.5 mL	4 to 8 weeks
	2 doses Pfizer Comirnaty® are recommended and a third may be offered	30 mcg	0.3 mL	4 to 8 weeks

**If an infant or child began their primary series with Pfizer vaccine in a previous year, then 2 doses are now required to complete a 3 dose primary series unless they are immunocompromised then they require 3 doses to complete a 4-dose series.*

2024-25 Updated COVID-19 immunization

Individuals who have previously received COVID-19 vaccine can receive one dose of an updated COVID-19 vaccine in 2024-25. The recommended interval is 6 months (168 days) from the last COVID-19 vaccine dose. However, a shorter interval of at least 3 months (84 days) may be used. For individuals with confirmed SARS-CoV-2 infection, the same intervals (i.e., 6 months, with a minimum of 3 months) from confirmed infection to COVID-19 immunization may also be used.

Table 3: mRNA COVID-19 Vaccines for 2024-25

Product Name	SPIKEVAX®	COMIRNATY®
Manufacturer	**Moderna**	**Pfizer**
Vaccine Type	mRNA trans-membrane prefusion spike protein	mRNA trans-membrane prefusion spike protein
Route of Administration	IM	IM
Authorized Ages for Use	6 months and older	12 years and older (no pediatric formulation available for 2024-25)
Antigen	COVID-19 KP.2	COVID-19 KP.2
Adjuvant	No	No
Formats Available in Nova Scotia	Contains 5 adult doses or 10 pediatric doses (Use same vial for all age groups)	Contains 6 doses for ages 12 and up
Syringes	Low dead volume syringes*	Low dead volume syringes*
Reconstitution	No	No
Frozen State	Frozen at -50°C to -15°C until expiry	Ultra-frozen at -90°C to -60°C until expiry
Refrigerator	Refrigerator (+2°C to +8°C) for 50 days (time in transit included)**	Refrigerator (+2°C to +8°C) for up to 10 weeks prior to first use (time in transit included)**
Post Puncture timeframe	Use within 24 hours after first puncture if kept in vaccine fridge at +2°C to +8°C. Use within 12 hours after first puncture if stored above +8°C	Use within 12 hours after first puncture. Do not use after expiry date. Punctured vials can be stored at refrigerated or room temperature (+2°C to +25°C).
Transport after puncture	Use within 24 hours after first puncture if kept at +2°C to +8°C	There is not enough data to support transportation of open vials and loaded syringes.
Thimerosal or Antibiotics (Traces)	No	No
Other allergens	Polyethylene glycol (PEG) Tromethamine (trometamol or Tris)	Polyethylene glycol (PEG) Tromethamine (trometamol or Tris)
Egg protein (traces)	No	No

*See page 9 regarding access to low dead volume syringes

**Do not refreeze once thawed

Respiratory Syncytial Virus (RSV) Vaccine

RSV is a common seasonal respiratory virus which causes substantial morbidity in Canada, and places extensive burden on the health system every respiratory season. Although most infections in adults are self-limited, RSV can result in severe disease, including pneumonia and bronchiolitis, leading to hospitalization and intensive care admission.

Adults 60 years of age and older who are residents of Long-Term Care (LTCF) and other chronic care facilities are among those at highest risk for severe outcomes from RSV disease. New for the 2024-25 respiratory season, individuals 60 years and older living in LTCF or in hospital (ALTC) awaiting long-term care placement are eligible to receive one dose of RSV vaccine.

RSV vaccines do not change based on circulating strains and are not given annually. One dose of RSV vaccine has been shown to offer protection against disease for at least 2 respiratory seasons. Currently it is unknown whether booster doses will be needed.

In November 2024 the RSV vaccine will be sent directly to LTCF and hospitals. Additional doses will be available as new individuals move into the facility. It is important that RSV immunization be documented in CANImmunize so that the resident vaccine record is visible.

Abrysvo® is available as a powder in a single-dose vial that requires reconstitution with the provided prefilled syringe containing sterile water as diluent. Abrysvo™ must be administered immediately (within 4 hours) after reconstitution. For detailed information see the product monograph. Store the reconstituted vaccine between +15°C and +30°C. **Do not store reconstituted vaccine under refrigerated conditions (+2°C and +8°C)**. Do not freeze reconstituted vaccine. RSV vaccines can be administered at the same time as, or at any time before or after, other seasonal respiratory vaccines.

Table 4: RSV Vaccine for 2024-25

Respiratory Pathogen	Vaccine	Dose	Allergens	Logistical Considerations
Respiratory Syncytial Virus (RSV)	Protein Subunit Vaccine RSVpreF **Abryvso™**	Single 0.5 mL dose IM	Mannitol, polysorbate 80, sodium chloride, sucrose, tromethamine, trometamol hydrochloride	- very large packaging -will be sent directly to LTCF and NSH hospitals -store in refrigerator (prior to reconstitution) at +2°C and +8°C

Immunization Entry into Electronic Documentation

Electronic Medical Record

The Nova Scotia provincial repository for immunization data (Panorama) accepts immunization records from electronic medical records (EMRs). Step-by-step instructions for entering vaccines into EMRs may be found here: QHR Accuro EMR-Supports and Telus Health Med Access EMR - Supports .

To avoid risk of rejected records, the EMR must be configured using the following list: EMR-Panorama Vaccine List. To confirm electronic records are being received, please email the Public Health Information Solutions team, Department of Health and Wellness at panorama@novascotia.ca. Upon receipt of electronic records, providers are no longer required to send hardcopy reciprocal forms.

If you have questions related to the entry of influenza, COVID-19, RSV and other vaccines, please email panorama@novascotia.ca.

Physician billing for immunization

Billing requires a health service code, a modifier, and a diagnostic code				
Immunization	**Health Service Code**	**Modifier**	**MSUs**	**Diagnostic Code**
Influenza	13.59L	RO=INFL	6.0	Select diagnostic code from the table below
	13.59L	RO=HDIN	6.0	
COVID-19	13.59L	RO=CO19	6.0	
RSV	13.59L	RO=RSVV.	6.0	

Patient Status	**Diagnostic Codes**	
	FLU	**PC**
Pregnant	V221	N/A
Males & non-pregnant females	V048	V066

Health Services Code	**Description**	**MSUs**
13.59M	Provincial immunization tray fee	1.5 per multiple (max 4/visit)

Notes for physician billing

- Physicians are to use MSI billing codes
- If one vaccine is administered but no associated office visit is billed (i.e. the sole purpose for the visit is the immunization), claim the immunization at a full fee of 6.0 MSUs.
- If two vaccines are administered at the same visit but no associated office visit is billed (i.e. the sole purpose for the visit is the immunization), claim for each immunization at a full fee of 6.0 MSUs each. Any subsequent injections after two will be paid at 50%.
- If one vaccine is administered in conjunction with a billed office visit, claim both the office visit and the immunization at full fee.
- For children less than 12 months of age, if a vaccine is administered in conjunction with a well-baby care visit, claim the well-baby care visit and the immunization.
- If two vaccines are administered in conjunction with a billed office visit, the office visit and the first injection can be claimed at full fee. All subsequent injections will be paid at 50%.

Pharmacy billing for immunization

Pharmacies book COVID-19 and influenza vaccine appointments and document immunizations through Clinic Flow. This will provide the information required for pharmacy billing so there is no need to submit additional information.

Resources

Influenza vaccines: Canadian Immunization Guide

NACI Statement on seasonal influenza vaccine for 2024–2025

COVID-19 Vaccines: Canadian Immunization Guide

Guidance on the use of COVID-19 vaccines during the fall of 2024

Respiratory syncytial virus (RSV) vaccines: Canadian Immunization Guide

NACI Statement on the prevention of RSV disease in older adults

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