

Influenza Immunization Program 2020-2021 Update

This season, pharmacists are authorized to vaccinate persons 5 years of age and older who have a valid Saskatchewan Health Card with publicly funded influenza vaccine between 19 Oct 2020 and 31 Mar 2021. Children under the age of 9 years requiring a second dose of vaccine can receive immunization until 30 April 2021.¹ An updated vaccine screening and consent form along with an accompanying guide to the form can be found [here](#).

Notable Saskatchewan Influenza Immunization Policy (SIIP) changes this season¹:

- The pharmacy must develop and implement a process to document staff and attendees (including location, client name, contact information and in/out times) at influenza clinics to facilitate contact tracing should someone test COVID-19 positive.
- There is a new process to approve pharmacy requests for flu vaccine that includes an application form and a vaccine storage and handling checklist found in Appendices 16 and 17.
- Guidelines and recommendations regarding physical distancing and infection control.
- Wallet cards from 2019-20 can continue to be used in 2020-21. A revised wallet card will be shipped upon depletion of 2019-20 stock.
- Personal care home residents who are 65 years and older are eligible to receive Fluzone High Dose influenza vaccine.
- Alternate Location
 - Pharmacies are permitted to provide the publicly funded influenza vaccine in locations outside of the pharmacy (i.e., a vacant storefront in a shopping centre, an open space outside of the pharmacy within a shopping centre, or a vacant building in another location) when the alternate location is not in use for other purposes. Other alternate locations may be considered if identified and discussed with the Ministry of Health.
 - PAS members can find more details on the [PAS website](#).
- Verbal consent for influenza vaccination
 - During the current COVID-19 pandemic, pharmacists are permitted to obtain informed verbal consent. Pharmacists must follow the requirements for obtaining and documenting consent according to the Policies, Standards and Guidelines for Pharmacists in SCPP's [Administration of Drugs by Injection and Other Routes](#), Sept 2020. All documentation for verbal consent MUST clearly indicate that the consent was obtained verbally.
- Notification of Vaccine Administration form for children five to eight years of age
 - This [form](#) MUST be completed and forwarded within three business days of administering the vaccine to the DPEBB for entry into the client record within the Panorama Immunization Module.

Vaccines funded by the Saskatchewan Ministry of Health for the 2020-2021 Seasonal Influenza Program¹:

- Fluzone® Quadrivalent
- Flulaval® Tetra
- Fluzone® High-Dose PFS - for long term care (LTC) and personal care home (PCH) residents 65 years and older only.

Fluzone® Quadrivalent and Flulaval® Tetra

- These are quadrivalent inactivated influenza vaccines containing 15 mcg of hemagglutinin (HA) protein for each of the two influenza A and two influenza B strains.¹
 - A/Guangdong-Maonan/SWL1536/2019 (H1N1)pdm09-like virus; (new for 2020-2021)
 - A/Hong Kong/2671/2019 (H3N2)-like virus (new for 2020-2021)
 - B/Washington/02/2019 (B/Victoria lineage)-like virus (new for 2020-2021)
 - B/Phuket/3073/2013-like virus (B/Yamagata/16/88 lineage)
- Both are suitable for use in all individuals over the age of 6 months and are safe for use in all stages of pregnancy.²

Fluzone® High-Dose

- This is a trivalent inactivated influenza vaccine containing 60 mcg (HA) protein for each of the first three vaccine strains listed above.
- It is indicated for use in individuals 65 years and older.²
 - This population is at higher risk of mortality and morbidity from influenza (particularly influenza A) and their immune response to influenza vaccines is lower than that of younger people.
 - The available evidence suggests that the high-dose vaccine should provide superior protection in this population, compared with standard dose influenza vaccine.
 - However, evidence is not sufficient for NACI to make a preferential recommendation for adults 65 and older; **Fluzone® High-Dose is publicly funded for LTC and PCH residents 65 years of age and older only.**²
- Pharmacists may administer Fluzone® High-Dose to other people in this age group but would have to order in, pay for and charge for the vaccination; pharmacies will not receive an administration fee from the Ministry for administering this vaccination to those who don't qualify for publicly funded.¹

Thimerosal-Containing Vaccines:

- All multidose vials of publicly funded influenza vaccine contain thimerosal.
- Patients preferring thimerosal-free vaccine need to be referred to Public Health where Fluzone® Quadrivalent pre-filled syringes will be available.¹
- Note that thimerosal is considered safe in pregnancy.²

Other influenza vaccines:

- Pharmacists should still be aware of the other influenza vaccine options. (See Tables 1 and 2 below.) In accordance with the requirements in the [Administration of Drugs by Injection and Other Routes - Policies, Standards and Guidelines for Pharmacists](#), pharmacists may need to inform patients of influenza vaccine options in case of vaccine shortage, patient preference, contraindication, or constituent allergy.³ If a non-funded influenza vaccine is requested, pharmacies may purchase and charge the patient for it as a private sale and service.¹

Notable National Advisory Committee on Immunizations (NACI) changes this season^{2,5}:

- **FluMist® Quadrivalent nasal spray** is **available** for this season. (FluMist® was not available last season due to shortage of an active ingredient.⁵)
- Unlike previous seasons, **FluMist® Quadrivalent nasal spray may be considered** as an influenza vaccine option **for children 2–17 years of age with stable HIV infection**. The children must:
 - have been on HAART (highly active antiretroviral therapy) for ≥4 months AND
 - have a CD4 count ≥500/μL if 2–5 years of age, or ≥200/μL if 6–17 years of age (measured within 100 days before administration of Flumist®) AND
 - have HIV plasma ribonucleic acid (RNA) <10,000 copies/mL (measured within 100 days before administration of Flumist®)

Flumist® remains **contraindicated in adults with HIV infection** due to lack of evidence for immunogenicity and safety and evidence that it may be less effective than quadrivalent IM influenza vaccines in adults.

- Stronger recommendation for the **vaccination of health care workers (HCW) and other care providers**.
 - NACI considers the receipt of influenza vaccination to be an essential component of the standard of care for all HCWs and other care providers **for their own protection and that of their patients**. This group should consider annual influenza vaccination as part of their responsibilities to provide the highest standard of care.
- **Flucelvax® Quad (IIV4-cc)** is Canada's first mammalian cell culture-based influenza vaccine. The manufacturing process uses animal cells (Madin-Darby Canine Kidney, or MDCK cells) as a host for growing the influenza viruses instead of fertilized chicken eggs. Cell-culture based influenza vaccines have been available in Europe since 2007 and the United States since 2012. NACI's research concludes that Flucelvax® Quad has comparable efficacy and safety profile to IIV4-SD and recommends that it **may be considered among the quadrivalent influenza vaccines offered to adults and children nine years of age and older**.

Advantages of Cell-Culture Based:

- Not dependent on egg supply.
- Manufacturing process is faster and there is reduced microbial or chemical contamination due to a closed system of vaccine production.
- May offer better efficacy due to greater similarity to the influenza viruses in circulation i.e. no egg-adaptive mutations will occur.
- May permit faster manufacturing in the event of a pandemic. The cells used to manufacture Flucelvax® are kept frozen and “banked” ensuring an adequate supply is always available for vaccine production.
- Considered safe for use in pregnancy.

Disadvantages of Cell-Culture Based:

- More expensive than other influenza vaccinations.
- No experience with this product in Canada.
- **Not funded for use in Saskatchewan this influenza season.**¹

Table 1: Influenza Vaccines Available in Canada^{2,3,6}

Vaccine Type	Brand Names	Thimerosal-Free?
Quadrivalent Standard-Dose Inactivated Influenza vaccine (IIV4-SD)	Fluzone® Quadrivalent*	Yes (PFS only)
	Flulaval® Tetra*	Yes (PFS only)
	Influvac® Tetra	Yes
	Afluria® Tetra	Yes (PFS only)
Quadrivalent Live Attenuated Influenza Vaccine (LAIV4)	Flumist® Quadrivalent	Yes
Cell-culture based quadrivalent inactivated influenza vaccine (IIV4-cc)	Flucelvax® Quad	Yes (PFS only)
Trivalent Standard-Dose Inactivated Influenza Vaccine (IIV3-SD)	Agriflu®	Yes (PFS only)
	Fluviral®	No
High-Dose Trivalent Inactivated Influenza Vaccine (IIV3-HD)	Fluzone® High-Dose^	Yes
Adjuvanted Inactivated Influenza Vaccine (IIV3-Adj)	Fluad® Pediatric	Yes
	Fluad®	Yes

PFS=pre-filled syringe
 *Publicly funded in SK for the 2020-21 influenza season
 ^Publicly funded in SK for the 2020-21 influenza season for residents of LTC facilities and PCHs who are 65 years and older

Table 2: Alternatives to Quadrivalent Influenza Vaccine (IIV4-SD) for Pediatric Persons^{2,3,6}

Please note that Fluzone® Quadrivalent and Flulaval® Tetra are appropriate and indicated for use in everyone over the age of 6 months.

Influvac® Tetra is indicated for use in ages 3 years and older; Afluria® is indicated for ages 5 years and older.

Age	Vaccine	Rationale	Comments
6-23 months	IIV3-Adj	IIV4-SD is preferred. Insufficient evidence to make recommendation on use of IIV3-Adj over IIV3-SD	Available as Fluad® Pediatric.
	IIV3-SD		Higher prevalence of influenza B in this population.
2-17 years	LAIV4	Either IIV4-SD or LAIV4 are preferred in this age group due to higher prevalence of influenza B.	LAIV4 contraindicated in: -severe asthma (as defined as currently on oral or high-dose inhaled corticosteroids -experienced medically attended wheezing in the 7 days prior to vaccination -immune compromising conditions, due to underlying disease, therapy, or both excluding those with stable HIV infection on HAART and with adequate immune function. (See definitions on 1 st page) -patients on ASA -pregnancy
		LAIV4 provides the intranasal route for those who want to avoid an injection.	
	IIV3-SD	IIV4-SD is the influenza vaccine of choice in those with contraindications to LAIV4 – see comments	Higher prevalence of influenza B in this population.
9-17 years	IIV4-CC	Comparable to IIV4-SD in efficacy and safety	Available as Flucelvax® Quad Not publicly funded. More expensive than other options

Adj=adjuvanted; CC=cell culture-based; HAART = highly active antiretroviral therapy HD=high dose; IIV3=trivalent inactivated influenza vaccine; IIV4=quadrivalent inactivated influenza vaccine; LAIV=live attenuated influenza vaccine; SD=standard dose

Table 3: Alternatives to Quadrivalent Influenza Vaccine (IIV4-SD) for Adult Persons^{2,3,6}

Please note that Fluzone® Quadrivalent and Flulaval® Tetra are appropriate and indicated for use in everyone over the age of 6 months.

Influvac® Tetra is indicated for use in ages 3 years and older; Afluria® is indicated for ages 5 years and older.

Age	Vaccine	Rationale	Comments
18-59 years	LAIV4	Can be used non-preferentially in this age group except in: -pregnant women; -Immune compromising conditions due to underlying disease, therapy, or both -severe asthma (as defined as currently on oral or high-dose inhaled corticosteroids -have experienced medically attended wheezing the 7 days prior to vaccination -receipt of an anti-influenza antiviral drug (e.g. oseltamivir) in the previous 48 hours.	Available as Flumist® Quadrivalent LAIV4 provides the intranasal route for those who want to avoid an injection IIV4-SD recommended in pregnancy
	IIV3-SD	Can be used non-preferentially in this age group except in: -pregnant women -chronic health conditions as detailed in comments -health care workers IIV4-SD recommended for above	-cardiac or pulmonary disorders -diabetes mellitus and other metabolic diseases -cancer, immune compromising conditions (due to underlying disease, therapy, or both) -renal disease; -anemia or hemoglobinopathy; -neurologic or neurodevelopment conditions (excludes migraines and psychiatric conditions without neurological conditions) -morbid obesity (BMI of 40 and over)
	IIV4-cc	Comparable to IIV4-SD in efficacy and safety	Available as Flucelvax® Quad. Not publicly funded. More expensive than other options
60-64 years	IIV3-SD	Can be used non-preferentially in this age group	
	IIV4-cc	Comparable to IIV4-SD in efficacy and safety	Available as Flucelvax® Quad Not publicly funded. More expensive than other options
≥ 65 years	IIV3-HD	IIV3-HD is preferred given the increased burden influenza A and evidence of better efficacy in this age group	Available as Fluzone® High-Dose. May cause more injection-site reactions.
	IIV3-SD		
	IIV4-cc	At this time, evidence shows no preference between IIV (including IIV4-cc), IIV3-SD or IIV3-Adj	Available as Flucelvax® Quad Not publicly funded.
	IIV3-Adj		Available as Flud®. May cause more injection-site reactions.

Adj=adjuvanted; CC=cell culture-based; HAART = highly active antiretroviral therapy HD=high dose; IIV3=trivalent inactivated influenza vaccine; IIV4=quadrivalent inactivated influenza vaccine; LAIV=live attenuated influenza vaccine; SD=standard dose

FAQs:

Q: *How does the COVID-19 pandemic change the way we deal with the influenza immunization season?*

A: NACI has published two documents which address many of the potential issues stemming from COVID-19:

- [Guidance for influenza vaccine delivery in the presence of COVID-19.](#)
- [Interim guidance on continuity of immunization programs during the COVID-19 pandemic](#)

[.PAS](#) has many influenza immunization support documents, tools and links on their website including:

- [2020-21 Season Influenza Preparation Webinar](#)

[CPhA](#) has developed resources needed for pharmacists during this influenza season including:

- [Suggested Best Practices for Community Pharmacy: Providing Influenza Immunizations During the COVID-19 Pandemic](#)
- [Webinar recording – Preparing for Flu Season: Suggested Best Practices for Community Pharmacy](#)

Q: *Can the seasonal influenza vaccine be given concomitantly with other vaccines?*

A: Any of this year's publicly funded influenza vaccines may be given concomitantly with, or at any time before or after, live attenuated vaccines or other inactivated vaccines.^{2,7} Administering all appropriate vaccines in one visit is encouraged, especially during COVID-19.

Although it is usually recommended that 4 weeks separate 2 live vaccines, current studies on concomitant administration of LAIV3 (no studies available with LAIV4) with other live vaccines have not found evidence of clinically significant immune interference. This, along with expert opinion, has led to the NACI recommendation that LAIV4 can be given together with or at any time before or after the administration of any other live attenuated or inactivated vaccine.²

Theoretically, there may be more side effects if two adjuvanted vaccines are given together, for example, Fludax® with Shingrix®.⁸

Q: *What if someone got a larger than recommended dose or more than one influenza vaccine this season?*

A: Administration of larger than recommended vaccine dosages are considered valid but may cause greater local or systemic reactions.⁷

Q: *What is the evidence re: use of the High-Dose influenza vaccine in adults < 65 years of age?*

A: At this time, there is no evidence available on use in this population. Keep in mind that Fluzone® High-Dose is only trivalent. The regular Fluzone® is quadrivalent and provides broader protection from influenza B which is more prevalent in this age group.²

Q: *Could 4 doses of Fluzone® be given instead of 1 dose of Fluzone® High-Dose to save the patient money?*

A: No. The main reason is that Fluzone® High-Dose is trivalent whereas Fluzone® is quadrivalent. This substitution is not recommended.⁹

Q: *I've heard LAIV (FluMist®) is not as effective as IIV. Why is it considered a valid option?*

A: US data found LAIV to be poorly effective during the 2013–2014 and 2015–2016 influenza seasons leading the US Advisory Committee on Immunization Practices (ACIP) to recommend against its use during the 2016-2017 and 2017 – 2018 seasons. In 2017, NACI undertook a review of the available evidence and found that similar studies from Canada, the UK and Finland demonstrated LAIV to be effective.¹⁰ NACI considers LAIV a valid influenza vaccine option for children 2 to 59 years of age who do not have contraindications, but does not suggest it be used preferentially over IIV for any group.¹¹

ACIP has once again been including LAIV4 among valid influenza vaccine options in its recommendations since the 2018-19 season.^{8,12,13}

Prepared by Dorothy Sanderson, BSP; reviewed by Carmen Bell, BSP
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