

## Influenza Vaccine Update 2017-2018

### Vaccines funded by the Saskatchewan Ministry of Health for the 2017-2018 Seasonal Influenza Program<sup>1</sup>:

- Fluzone® Quadrivalent
- Flulaval® Tetra

Both of these vaccines are quadrivalent, that is, contain two influenza A and two influenza B strains. Specifically<sup>1</sup>:

- A/Michigan/45/2015 (H1N1)pdm09-like virus;
- A/Hong Kong/4801/2014 (H3N2)-like virus;
- B/Brisbane/60/2008-like virus; and
- B/Phuket/3073/2013-like virus.

They are suitable for use in all individuals over the age of 6 months and are safe for use in all stages of pregnancy.<sup>2</sup>

Pharmacists are authorized to vaccinate persons 9 years of age and older who have a valid Saskatchewan Health Card with publicly funded influenza vaccine between 23 Oct 2017 and 31 Mar 2018.<sup>1</sup> An updated screening/consent tool and guideline for influenza injection is available on the [PAS website](#).

### 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.<sup>3</sup> If a non-funded influenza vaccine is requested, pharmacies may purchase and charge the patient for it as a private sale and service.

### Changes to the Canadian 2017-2018 influenza vaccine guidelines:

**1. FluMist®** : Saskatchewan Public Health clinics will, again, NOT be providing the option of the live attenuated influenza vaccine (LAIV) intranasal spray influenza vaccine for the 2017-2018 season for any patient.<sup>1</sup> The evidence from review of studies from the last several years does not support a recommendation for the preferential use of LAIV in children and adolescents 2-17 years of age.<sup>2</sup>

The National Advisory Committee on Immunization (NACI) recommends: in children without contraindications to the vaccine, any of the following vaccines can be used: quadrivalent LAIV (FluMist®), quadrivalent inactivated influenza vaccine (QIV) or trivalent inactivated influenza vaccine (TIV). A quadrivalent formulation is preferred in this age group.<sup>2</sup>

**2. Egg allergy:** Last year’s recommendation still stands. NACI has indicated that LAIV (FluMist) is safe for use in individuals with an egg allergy. The full dose of LAIV may be used without prior vaccine skin test and may be administered anywhere that vaccines are routinely administered. As in the past, all inactivated influenza vaccines can be given to those with an egg allergy.<sup>2</sup>

**Table 1: Influenza Vaccines Available in Canada<sup>2,4</sup>**

Vaccine Type	Brand Names	Thimerosal-Free?
<b>Quadrivalent Inactivated Influenza Vaccines (QIV)</b>	Flulaval® Tetra	x
	Fluzone® Quadrivalent	√ (pre-filled only)
<b>Trivalent Inactivated Influenza Vaccines (TIV)</b>	Agriflu®	√ (pre-filled only)
	Fluviral®	x
	Influvac®	√
<b>Trivalent Inactivated Influenza Vaccines with Adjuvant (aTIV)</b>	Fluad®	√
	Fluad® Pediatric	√
<b>Live Attenuated Influenza Vaccine (LAIV) Quadrivalent</b>	FluMist® Quadrivalent	√
<b>High-Dose Trivalent Inactivated Influenza Vaccine (HD-TIV)</b>	Fluzone® High-Dose	√

**Table 2: Alternatives to Quadrivalent Influenza Vaccine (QIV)<sup>2,4</sup>**

*QIV is appropriate and indicated for use in everyone over the age of 6 months.*

Patient Factors	Vaccine	Rationale	Comments
<b>Age</b>			
<b>6-23 months</b>	TIV	If QIV unavailable	QIV preferred as higher prevalence of influenza B in this population
	aTIV	Adjuvanted TIV may confer greater immune response in this population	Available as Fluad® Pediatric
<b>2-17 years</b>	LAIV	Can be used if an IM injection not desirable/appropriate	Available as FluMist® Quad
	TIV	If QIV unavailable	
<b>18-59 years</b>	LAIV	As above	
	TIV	If QIV unavailable	
<b>60-64 years</b>	TIV	If QIV unavailable	Insufficient evidence to support the use of LAIV in this population
<b>≥ 65 years</b>	HD-TIV	Higher prevalence of Influenza A in this population. Some evidence of better efficacy in this age group	Available as Fluzone® High-Dose
	TIV	If QIV and HD-TIV unavailable	
	aTIV	Clinical trials have shown higher immunogenicity and broader cross-reactivity compared to standard TIV. However, it is not yet known how immunogenicity and vaccine effectiveness compare to HD-TIV.	Available as Fluad®

**Table 2 Cont'd**

Patient Factors	Vaccine	Rationale	Comments
<b>Chronic Disease</b>			
<b>2-17 years</b>	TIV	If QIV unavailable	LAIV contraindicated in immunocompromised, severe asthma but can be used in other chronic conditions
<b>18-59 years</b>	TIV	If QIV unavailable	Insufficient evidence to support use of LAIV
<b>Pregnancy</b>			
	TIV	If QIV unavailable	Insufficient safety data to support the use of LAIV. Theoretical fetal risk with live virus vaccine
<b>Lactation</b>			
	TIV	If QIV unavailable	Available as FluMist® Quad
	LAIV	As above	

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**References:**

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2. Canadian Immunization Guide Chapter on Influenza and Statement on Seasonal Influenza Vaccine for 2017-2018. [updated 01 May 2017; accessed 08 Sep 2017] Available at <https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/healthy-living/canadian-immunization-guide-statement-seasonal-influenza-vaccine/naci-stmt-2017-2018-eng.pdf>
3. Saskatchewan College of Pharmacy Professionals. Administration of Drugs by Injection and Other Routes - Policies, Standards and Guidelines for Pharmacists. [updated Nov 2016; accessed 08 Sep 2017] Available at: [https://scp.in1touch.org/document/3614/REF\\_Injection\\_Admin\\_Gdlns\\_20161108.pdf](https://scp.in1touch.org/document/3614/REF_Injection_Admin_Gdlns_20161108.pdf)
4. Health Canada. Drug Product Database Online Query. Ottawa, ON: Health Canada; [cited 2017 Oct 10]. Available from: <http://webprod5.hc-sc.gc.ca/dpd-bdpp/index-eng.jsp>
5. Centers for Disease Control and Prevention. Fluzone high-dose seasonal influenza vaccine. [updated 21 Aug 2017; accessed 08 Sep 2017] Available at [http://www.cdc.gov/flu/protect/vaccine/qa\\_fluzone.htm](http://www.cdc.gov/flu/protect/vaccine/qa_fluzone.htm).