

Seasonal Influenza vaccines: which one to use?

There are currently eight influenza vaccines authorized for use in Saskatchewan.¹ The trivalent vaccines contain two influenza A strains and one influenza B strain as recommended by the World Health Organization for the northern hemisphere. The quadrivalent vaccines contain the above plus a second influenza B strain. The vaccines are available as inactivated vaccine (TIV or QIV) with or without adjuvant for intramuscular administration or live attenuated influenza vaccine (LAIV) for intranasal administration. Four vaccines are provincially funded:

1. Agriflu® (TIV)
2. Fluzone® Quadrivalent (QIV)
3. Fluviral® (TIV)
4. FluMist® Quadrivalent (LAIV)

Pharmacists in Saskatchewan are currently supplied with trivalent injectable inactivated influenza vaccine (TIV): Fluviral or Agriflu. This may not be the vaccine of choice for certain patients. See table below:

Patient Factors	Preferred vaccine	Rationale	Comments
Age			
6 – 23 mon	1 st line – QIV 2 nd line – TIV, <i>adjuvanted TIV</i>	No evidence that QIV more effective but higher prevalence of influenza B in this population	Adjuvanted TIV (Fluad® Pediatric) may confer greater immune response but is neither available nor funded through SK Health
2 – 17 yrs	1 st line - LAIV 2 nd line - QIV 3 rd line - TIV	As above plus: superior efficacy of LAIV in children (evidence stronger in <6 years of age)	All funded through SK Health. LAIV, QIV available at public health and medical clinics
18 – 59 yrs	1 st line - QIV, TIV, or LAIV	Equal efficacy against influenza A strains, QIV and LAIV also active against 2 influenza B strains.	All funded through SK Health. Use of LAIV is discouraged to save availability to children. However, it is being provided to those with serious problems with injection
60 – 64 yrs	1 st line – QIV or TIV	Insufficient evidence to support the use of LAIV in this population.	Both funded through SK Health
≥ 65 yrs	1 st line – QIV or TIV, or <i>adjuvanted TIV</i>		Adjuvanted TIV (Fluad®) is not available, not funded through SK Health
Pregnancy	1 st line - QIV 2 nd line - TIV	Insufficient safety data to support the use of LAIV. Theoretical fetal risk with live virus vaccine .	QIV available at public health and medical clinics
Chronic disease			
2-17 yrs	1 st line - LAIV, QIV 2 nd line -TIV	LAIV has not been shown to be superior in this population	LAIV contraindicated if immunocompromised, severe asthma LAIV, QIV available at public health and medical clinics
18-59 yrs	1 st line – QIV or TIV	Insufficient evidence to support the use of LAIV	
Preservative allergy	Agriflu® and Fluzone® (prefilled syringes only) Flumist®	Thimerosal-free	Fluzone Quad and Flumist® available at public health and medical clinics

Inform patients or caregivers when TIV is not first-line and provide them with information on where they can access the preferred vaccine. In most instances, TIV will still be a second or third line option and patients may choose to receive TIV in the pharmacy regardless of the potential for reduced effectiveness for the sake of convenience.

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References:

1. Public Health Agency of Canada An Advisory Committee Statement (ACS) -National Advisory Committee on Immunization (NACI) Statement on Seasonal Influenza Vaccine for 2015-2016. Available at <http://www.phac-aspc.gc.ca/naci-ccni/assets/pdf/flu-2015-grippe-eng.pdf>. Accessed November, 2015.
2. CPhA, Influenza Immunization Guide for Pharmacists 2015. Available at [http://www.pharmacists.ca/cpha-ca/assets/File/education-practice-resources/InfluenzaGuide_English_2015\(1\).pdf](http://www.pharmacists.ca/cpha-ca/assets/File/education-practice-resources/InfluenzaGuide_English_2015(1).pdf). Accessed November, 2015.
3. Saskatchewan Immunization Manual. Available at <http://www.ehealthsask.ca/services/manuals/Pages/SIM.aspx> . Accessed November, 2015.
4. Personal Communication with Supervisor of Immunization Regina Qu'Appelle Health Region, Nov. 19th, 2015.