

All you need to know about flu vaccines this season

Clinical scenario

You bump into a few colleagues in the hospital coffee shop having an animated discussion. "Get ready for flu season," says Jean. "There are now like 8 vaccines. Some are trivalent, some are quadrivalent. Who should get what?"

"Yes. When is it best to use the new adjuvanted vaccine for children 6 to 24 months?" asks Peter.

"Anything in particular we should be looking for this year in terms of adverse events?" asks Ahmed. "It seems like a long time since any of us saw a case of Guillain-Barré."

You smile. The night before you had received a link to the October 2015 issue of *CCDR* that included a summary of the latest National Advisory Committee on Immunization (NACI) recommendations for the 2015 to 2016 flu season. "I just happened to come across everything you need to know about flu vaccines this year," you say, grabbing your smartphone to share it with them.

Quadrivalent vaccines are the new norm

Vaccination is the most cost-effective way to control influenza outbreaks, and NACI continues to recommend vaccination for everyone 6 months and older (unless contraindicated), with a particular focus on those at high risk or who might transmit influenza to those at high risk. Children aged 6 to 59 months are high risk. For those 6 to 23 months, NACI recommends inactivated quadrivalent influenza vaccines (QIV) owing to the extra coverage of influenza B and the burden of influenza B in this group.¹ When QIV is not available, either unadjuvanted vaccine or the new adjuvanted trivalent influenza vaccine can be used. For those 2 to 17 years of age without contraindications, NACI continues to recommend the live attenuated influenza vaccine (LAIV), which will only be available as a QIV this season. In adults, either QIV or trivalent vaccine can be used.¹

The LAIV should not be used for children younger than 24 months owing to increased risk of wheezing, or for those younger than 18 years receiving acetylsalicylic acid-containing therapy. The LAIV can be given to adults without contraindications up to 65 years of age. Contraindications at any age include pregnancy, severe asthma (ie, someone currently taking oral or high-dose inhaled glucocorticosteroids, actively wheezing, or with medically attended wheezing in the past 7 days), and immunocompromise due to underlying disease, therapy, or both. Generally, 2 live vaccines are given 4 weeks apart, but there is no evidence that this interval is needed with LAIV. Of note, cystic fibrosis, except in those treated with immunosuppressive drugs, is not a contraindication for the LAIV.

Other developments

Based on a recent Canadian study,² NACI now includes children and adolescents with neurologic or neurodevelopmental conditions (eg, seizure disorders,

febrile seizures, and isolated developmental delay) as a high-risk group for whom influenza vaccination is particularly recommended.

Oculorespiratory syndrome is now defined as presence of bilateral red eyes plus 1 or more respiratory symptoms (cough, wheeze, chest tightness, difficulty breathing or swallowing, hoarseness, sore throat), starting within 24 hours of vaccination, with or without facial edema. It is not an allergic response and when it occurs it should be reported as an adverse event to local public health officials.

The October 2015 issue of *CCDR* is devoted to vaccines. Another article of interest covers the re-emergence of polio in conflict zones,³ which the World Health Organization is calling a public health emergency of international concern.⁴ In light of this re-emergence, NACI is recommending a single lifetime booster for those at increased risk of exposure (eg, those traveling to or working in areas that have wild polio or vaccine-derived outbreaks).⁵ Experts at Canada's National Microbiology Laboratory are urging clinicians to send stool samples from any child presenting with acute flaccid paralysis.³

References

1. Gemmill I. Summary of the National Advisory Committee on Immunization (NACI) statement on seasonal influenza vaccine for 2015-2016. *Can Commun Dis Rep* 2015;41(10):226-31.
2. Burton C, Vaudry W, Moore D, Bettinger JA, Tran D, Halperin SA, et al. Burden of seasonal influenza in children with neurodevelopmental conditions. *Pediatr Infect Dis J* 2014;33(7):710-4.
3. Booth TF, Grudeski E, McDermid A, Rotondo J. The polio eradication endgame: why immunization and continued surveillance is critical. *Can Commun Dis Rep* 2015;41(10):231-6.
4. *Statement on the 6th IHR Emergency Committee meeting regarding the international spread of wild poliovirus*. Geneva, Switz: WHO; 2015. Available from: www.who.int/mediacentre/news/statements/2015/ihr-polio-17-august-2015/en/. Accessed 2015 Sep 8.
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CANADA COMMUNICABLE DISEASE REPORT

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CCDR Highlights summarize the latest evidence on infectious diseases from recent articles in the *Canada Communicable Disease Report*, a peer-

reviewed online journal published by the Public Health Agency of Canada. This highlight was prepared by Dr Patricia Huston, a family physician, public health physician, and Editor-in-Chief of the *Canada Communicable Disease Report*.

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