World Health Organization

FREQUENTLY ASKED QUESTIONS

Recommended composition of influenza virus vaccines for use in the southern hemisphere in the 2011 influenza season

1. What viruses are recommended by WHO for inclusion in influenza vaccines for use in the southern hemisphere in 2011?

WHO recommends that influenza vaccines for use in 2011 in the southern hemisphere contain the following viruses:

- an A/California/7/2009 (H1N1)-like virus;
- an A/Perth/16/2009 (H3N2)-like virus;
- a B/Brisbane/60/2008-like virus.

This recommendation is the same as that for the northern hemisphere 2010-2011.

2. What are the vaccine viruses (high growth reassortants) that are contained in vaccines?

National or regional control authorities approve the composition and formulation of vaccines used in each country. National public health authorities are responsible for making recommendations regarding the use of the vaccine.

The majority of vaccines contain the high growth reassortants NYMC X-181 or NYMC X-179A for the A(H1N1) vaccine component; NYMC X-187 or NYMC X-183 for the A(H3N2) vaccine component and wild type B/Brisbane/60/2008 or NYMC BX-35 for the influenza B vaccine component.

WHO updates the availability of candidate vaccine viruses and vaccine potency reagents on the WHO website at http://www.who.int/csr/disease/influenza/vaccinerecommendations2/en/index.html .

3. Is the A(H1N1) component recommended for inclusion in the vaccine the A(H1N1) pandemic virus?

Yes. During the past year the A(H1N1) seasonal virus appears to have been replaced by the A(H1N1) pandemic virus. Since February 2010, only a few sporadic detections of A(H1N1) seasonal virus have been reported.

4. How is this recommendation made?

Since February 2010, the Directors and representatives of the WHO Collaborating Centres (WHO CCs) for Reference and Research on Influenza and representatives of the

Essential Regulatory Laboratories (ERLs), supported by Cambridge University, have periodically reviewed by telephone conferences the antigenic and genetic analyses of influenza viruses provided to WHO through the Global Influenza Surveillance Network (GISN).

From 26 to 28 September 2010, a technical consultation was held with the participation of eight Advisers comprising one representative from each WHO CC and ERL and Observers from National Influenza Centres (NICs), WHO H5 Reference Laboratories, WHO CCs, ERLs, OFFLU, academic and other partners.

The consultation was conducted to finalize analyses of influenza viruses that have been shared with WHO through GISN, complemented with human serological study results and with available epidemiological and clinical information. The consultation covered previous pandemic A(H1N1) 2009, seasonal influenza viruses, influenza A(H5N1) and influenza A(H9N2) viruses, which are considered infectious for people and for which either developmental or commercial vaccines are being made. Based on all relevant considerations, the Advisers provided a recommendation to WHO for composition of influenza vaccines. Technical reports are published at

- http://www.who.int/csr/disease/influenza/recommendations2011south/en/index.html
- http://www.who.int/csr/disease/avian_influenza/guidelines/h5n1virus/en/index.html

5. What is the purpose of the WHO influenza vaccine recommendations?

These recommendations provide a guide to national public health authorities and vaccine manufacturers for composition of influenza vaccines for the relevant season.

In contrast to many other vaccines the viruses in influenza vaccines are updated frequently because circulating influenza viruses continuously evolve.

6. What is the Global Influenza Surveillance Network (GISN)?

GISN is a global public health laboratory network coordinated by WHO, currently consisting of 135 National Influenza Centres (NICs) in 105 member states, 5 WHO Collaborating Centers for Influenza (CCs), 4 Essential Regulatory Laboratories (ERLs) and 11 WHO H5 Reference Laboratories.

This network conducts numerous public health activities including the collection and testing by the NICs of clinical specimens from patients as well as the further testing and characterization of representative influenza virus isolates by WHO CCs and ERLs. This network conducts risk assessment of influenza viruses of concern, such as potential pandemic viruses. It also provides guidance to countries, and supports activities such as training, outbreak response, development of laboratory diagnostics, testing for antiviral drug resistance and scientific interpretation of important findings.

7. What other actions are taken by WHO beyond the vaccine virus recommendations to facilitate development of influenza vaccines?

To support the development and production of influenza vaccines, the new candidate vaccine viruses are provided to influenza vaccine manufacturers by the WHO CCs, ERLs and other participating laboratories. These new vaccine viruses are used as the starting material by companies for the production of influenza vaccines and to prepare specific reagents for vaccine standardization and quality control.