

DRUG ALERT

Recommendations pertaining to the use of viral vaccines: Influenza 2013

Department of Health

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Here we provide recommendations for the use of viral vaccines in anticipation of the 2013 Southern Hemisphere influenza season. For a review of the 2012 influenza season, please refer to the website of the National Institute for Communicable Diseases of the National Health Laboratory Service (<http://www.nicd.ac.za>).

S Afr Med J 2013;103(2):80. DOI:10.7196/SAMJ.6435

Recommended vaccine formulation

The following strains have been recommended by the World Health Organization (WHO) for the 2013 Southern Hemisphere influenza season:

- an A/California/7/2009 (H1N1)-like virus
- an A/Victoria/361/2011 (H3N2)-like virus
- a B/Wisconsin/1/2010-like virus.

Vaccines should contain 15 µg of each haemagglutinin antigen in each 0.5 ml dose.

Indications

- Persons (adults or children) who are at high risk for influenza and its complications because of underlying medical conditions and who are receiving regular medical care for conditions such as chronic pulmonary and cardiac diseases, chronic renal diseases, diabetes mellitus and similar metabolic disorders; individuals who are immuno-suppressed (including HIV-infected persons with CD4 counts >100 cells/µl); and individuals who are morbidly obese (BMI ≥40 kg/m²).
- Pregnant women – irrespective of the stage of pregnancy.
- Residents of old-age homes, chronic care and rehabilitation institutions.
- Children on long-term aspirin therapy.
- Medical and nursing staff responsible for the care of high-risk cases.
- Adults and children who are family contacts of high-risk cases.
- All persons aged >65 years.
- Any persons wishing to protect themselves from the risk of contracting influenza, especially in industrial settings, where large-scale absenteeism could cause significant economic losses.

Table 1. Recommended dosage of antiviral agents for treatment

Age group	Weight (kg)	Oseltamivir dosage*	Zanamivir dosage*
Adults		75 mg twice a day	Two 5 mg inhalations (10 mg total) twice a day
Premature neonates (<38 weeks)		1 mg/kg twice a day	
Infants (0 - 12 months)		3 mg/kg twice a day	
Children	≤15	30 mg twice a day	Two 5 mg inhalations (10 mg total) twice a day (only in children aged 12 years or older)
	15 - 23	45 mg twice a day	
	24 - 40	60 mg twice a day	
	>40	75 mg twice a day	

*Recommended duration of treatment is 5 days. Zanamivir is only registered for children aged ≥5 years.

Dosage

- Adults: Whole or split-product or subunit vaccine, 1 dose intramuscularly (IM).
- Children (aged <12 years): Split-product or subunit vaccine, 1 dose IM.
- Children aged <9 years who have never been vaccinated should receive 2 doses 1 month apart.
- Children aged <3 years should receive half the adult dose on two occasions 1 month apart.
- Influenza vaccine is not recommended for infants aged <6 months.

Contra-indications

- Persons with a history of severe (anaphylactic) hypersensitivity to eggs or other components of the vaccine.
- Persons with acute febrile illnesses should preferably be immunised after symptoms have resolved.

Timing

Vaccines should be given sufficiently early to provide protection for the winter. A protective antibody response takes about 2 weeks to develop.

Antiviral chemotherapy

At present novel influenza A (H1N1) and H3N2 and B influenza viruses remain largely sensitive to oseltamivir (as well as zanamivir). Antiviral chemotherapy is most effective when administered as early as possible, <2 days after onset of illness. The dosages for treatment are provided in Table 1.

Antiviral chemoprophylaxis

Chemoprophylaxis for contacts of persons with influenza is not recommended. Recent WHO recommendations advise presumptive treatment using the treatment regimen described above for high-risk (severely immuno-compromised) individuals exposed to influenza instead of the previously recommended long-term lower-dose chemoprophylaxis regimen. These individuals need to be very carefully monitored during influenza season for early signs and should then be treated immediately on suspicion of infection.

For a more detailed description of antiviral management and prophylaxis of influenza, please refer to the *Healthcare Workers Handbook on Influenza* on the NICD website (<http://www.nicd.ac.za>).