

PATHCHAT

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Endorsed by the Ampath Infectious Diseases Peer Group



Influenza 2013: An update

South Africa's influenza season typically starts from around the April to June period, usually peaking in August and September. Due to the ever-changing nature of influenza viruses, we need to know what the current local and global situation is regarding the circulating influenza viruses and prepare ourselves accordingly.

The recent emergence of Influenza A H7N9 in China demonstrates the unpredictable nature of influenza infections and it remains to be seen what will happen on this front. During the 2013 influenza season in South Africa, we expect to see the usual seasonal circulation of influenza A H1N1 of swine lineage, Influenza A H3N2 and Influenza B infections.

Influenza virus vaccine

Influenza vaccines have been available since early March, and it is recommended that people get vaccinated as soon as the vaccine is available to ensure immunity during the influenza season. This year's vaccine contains the following strains:

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

Who should be vaccinated?

- Persons at high risk of complications due to an underlying medical condition (chronic pulmonary, cardiac or renal disease, diabetes, HIV-infected persons and obese individuals)
- All pregnant women
- All persons older than 65 years of age
- Residents of old-age homes, chronic-care and rehabilitation centres
- Children on long-term aspirin therapy
- Medical, nursing and support staff (e.g. cleaners) who are exposed to potentially infected patients **or** patients who are at high risk of complicated infections if infected by medical staff
- Family contacts of patients infected with influenza **or** family contacts of high-risk patients who may be the source of infection for the high-risk patient
- Anyone wishing to protect themselves from influenza virus infections, especially in work settings, to avoid absenteeism

Dosage

- Adults and children ≥ 9 years: a once-off single adult dose
- Children 3-8 years: a once-off single adult dose if previously vaccinated **OR** a single adult dose given on two occasions one month apart if not previously vaccinated

- Infants and children 6 months to 2 years: a once-off half adult dose if previously vaccinated OR a half adult dose given on two occasions one month apart if not previously vaccinated
- Infants < 6 months of age: vaccination not recommended

Contraindications

- Persons with a known prior anaphylactic reaction to eggs.
- Persons with an acute febrile illness should be vaccinated when their symptoms have resolved.

Antiviral treatment

Persons with mild disease and no co-morbid conditions do not usually require treatment. Treatment should be reserved for those with suspected or laboratory-proven infections who have co-morbid conditions as per the indications for vaccination above, or who have moderate to severe infections. Treatment is most effective when administered within 48 hours of the onset of symptoms. In high-risk individuals, antiviral treatment must be started empirically before laboratory confirmation, as these individuals can rapidly develop severe and complicated infections.

Antiviral prophylaxis

Antiviral prophylaxis for contacts of persons with influenza is not recommended, as the lower dose prophylaxis is thought to drive resistance to these antiviral agents. The World Health Organisation (WHO) recommends presumptive treatment instead, using the recommended treatment dose of antiviral agents, for high-risk individuals exposed to influenza.

Laboratory testing for influenza

Laboratory testing for influenza virus infections should be done by means of a PCR performed on a respiratory tract sample, such as a nasal or throat swab. Ampath will be modifying its PCR test, and for the 2013 flu season, all PCR requests for influenza will be tested by means of a multiplex PCR for influenza A, influenza B and respiratory syncytial virus (RSV) A/B. This is a change from the previous assay that included the specific detection of influenza A H1N1, but did not include RSV. The differentiation between influenza A H1N1 and H3N2 is of epidemiologic importance, but not of clinical relevance as they should be managed in the same manner. By detecting both influenza and RSV, this assay will detect the two most important viral respiratory tract infections that are seen during the flu season.

Recommended dosage of antiviral agents for treatment*

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

*Recommended duration of treatment is 5 days.