

AMPATHCHAT

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Influenza 2019: An update

Influenza is an infectious respiratory disease caused by the influenza virus. It can range from a mild infection to a severe life-threatening disease. The number of influenza infections typically increases during the winter months.

Influenza strains

Certain strains of influenza A (H1N1 and H3N2) and influenza B will typically circulate in a given season, and are called the circulating seasonal strains.

"Swine flu" was the name given to a new type of influenza A H1N1 virus first seen during 2009/10. "Swine flu" is now considered a normal circulating seasonal influenza A H1N1 strain, and is included in the annual flu vaccine. The symptoms and management of influenza A H1N1 is the same as for influenza A H3N2 and influenza B strains, and the mortality and morbidity rates are not higher than with the other seasonal influenza strains.

Incubation and contagious period

Infected persons can spread influenza to others via droplets when coughing or sneezing. Influenza may also be transmitted from surfaces that have become contaminated by infected secretions if those surfaces are touched, and the virus transferred to mucous membranes.

The incubation period ranges from one to four days. Infected persons usually shed the virus from around one day before the symptoms start to around a week after the symptoms start. However, very young children, adults with severe disease and immunocompromised persons can shed the virus for much longer periods (>10 days).

Clinical symptoms

Uncomplicated influenza (influenza-like illness)	Complicated/severe influenza
<ul style="list-style-type: none"> Fever, myalgia, headache and tiredness Respiratory symptoms such as cough, sore throat and runny nose Diarrhoea and vomiting 	<ul style="list-style-type: none"> Signs of lower respiratory tract infection Exacerbation of an underlying medical condition Influenza that requires hospital admission

Elderly and immunosuppressed individuals may present with atypical symptoms and the absence of fever.

Who is at risk of getting severe influenza illness?

Some individuals are at risk of getting severe illness, with complications such as pneumonia, myocarditis and encephalitis. In South Africa, 6 000 to 11 000 people die from influenza infection every year. About half of these deaths are in the elderly and about a third in HIV-infected persons.

Persons at high risk for severe disease include:

- Young children (especially below two years of age)
- The elderly (older than 65 years of age)
- People with existing chronic diseases (cardiac, pulmonary, renal, endocrine, hepatic or neurological)

- People with immunosuppression for example HIV
- Morbidly obese people (BMI ≥ 40 or BMI ≥ 35 with obesity-related health conditions)
- Pregnant women (including the two-week-period after delivery)
- Children and adolescents receiving chronic aspirin therapy

Testing for influenza at Ampath laboratories

The PCR assays that are available at Ampath test for both influenza A (which includes H1N1 and H3N2) and influenza B viruses. The testing is ideally performed on nasopharyngeal or throat swab specimens. There are different multiplex PCR options for influenza testing, which may or may not include the subtyping of the influenza A virus depending on the test chosen.

Who should be treated for influenza?

Influenza A (H1N1), influenza A (H3N2) and influenza B are managed in the same way, regardless of subtyping. The patient must be assessed for symptoms of progressive or severe illness and/or the presence of any risk factors for severe disease. These patients must receive oseltamivir (Tamiflu®), ideally within 48 hours of symptom onset. Treatment with oseltamivir should not be delayed pending laboratory results.

For patients with uncomplicated influenza and no risk factors for severe disease, treatment with oseltamivir is not indicated, and these patients can be managed symptomatically. All patients must, however, be counselled about signs of progressive or severe influenza infection so that they can consult their doctor again if these symptoms occur.

Influenza vaccination

The influenza vaccine is the best defence against influenza infection. The vaccine available in South Africa contains three different strains of influenza: influenza A (H1N1), influenza A (H3N2) and influenza B. These strains are updated every year according to the strains that are anticipated to circulate during the coming influenza season. The best time to vaccinate is before the influenza season starts, usually around March/April in South Africa. It takes around two weeks after vaccination for protective antibodies to develop. The vaccine will only offer protection against the strains included in the vaccine, and not against other respiratory viruses. It is never too late to vaccinate against influenza, as more than one strain typically circulates during the influenza season. Ideally, every person should be vaccinated against influenza, but it is particularly important for patients at high risk for influenza-related complications to receive the vaccine.

The influenza vaccine does not contain any live virus and can safely be given to immune-compromised persons and in pregnancy. The only persons who may not get the influenza vaccine are those with a history of severe allergy to any of the vaccine components, including egg protein, or who had a severe allergic reaction after a previous dose of influenza vaccine.

For the complete influenza guidelines, please refer to:

Influenza: NICD recommendations for the diagnosis, prevention, management and public health response (http://www.nicd.ac.za/wp-content/uploads/2017/03/Influenza-guidelines-rev_-23-April-2018.pdf).