

Influenza

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The influence of the stars, “Influenza di catarro”, means an “outbreak of the catarrhal fever” that was first described by Italian to explain an epidemic disease that spread across Europe in 1743. Then the name “Influenza” came to English and has been changed into the modern abbreviation of “flu” since the Victorian period. Now, we know it as the viral causation of a respiratory infection, which may lead to a mild or fatal condition.

Human faced three dreadful outbreak of flu worldwide in the 20th century including Spanish influenza 40-50 million death pole in 1918, Asian influenza with two million deaths in 1957, and Hong Kong influenza that killed one million in 1968. Centers for Disease Control and Prevention (CDC) estimated that the annual death burden of flu has resulted in 9.3 million to 49.0 million illnesses, 140,000 to 960,000 hospitalizations and 12,000 to 79,000 deaths from 2010-11 through 2017-18 during influenza seasons in the United States. This variation could be due to increasing number of people who got vaccinated, the vaccine effectiveness in different areas, type of circulating viruses and the timing of the season (1,2).

Among four types of influenza virus, Type A, B, and C affect humans. Human Type A and B are responsible for seasonal flu epidemics every winter. Both flu and the common cold viruses are mainly of rhinovirus types, which result in respiratory illness and are spread by patient’s secretions induced by coughs or sneezes. Abrupt onset of symptoms, high fever, muscle or body aches, headaches, and debilitating fatigue suggest flu rather than common cold. Touching a contaminated surface or object with the flu virus is another common way that spreads the infection. The incubation period is between one to four days and the affected patient remains infectious from one day before the onset of symptoms to 7 days after the beginning of the illness (3).

However, most of the patients recover within two weeks, difficulty in breathing, breath shortness, pain or pressure in the chest and/or abdomen, sudden dizziness, confusion, severe or persistent vomiting and returning fever happening after some improvement in illness are sufficient to raise a red flag for influenza complications which include pneumonia, myocarditis, and encephalitis (3). CDC recommend annual prescription of flu vaccination as the core of prophylaxis for all individuals 6 months age and older, especially those who ate in higher-risk groups such as immunocompromised patients, presence of comorbidities, pregnancy women, children younger than 5 years or older than 64 years, obese people and health care workers who are dealing with infected patients (4,5). Both trivalent and quadrivalent inactivated influenza vaccines (IIV) are now available in Iran by the trade names of “Vaxigrip” and “Influvac”. Although in comparison with quadrivalent IIV (IIV4), the trivalent IIV (IIV3) does not provide protection against all subtypes of influenza B, there is no preference reported between IIV3 and IIV4 in the literature. The only contraindication for using IIV is the severe allergic reactions to any component of the vaccine. IIV can be used with precaution in Guillain-Barré syndrome within 6 weeks after flu shot inoculation occurred (5).

Wearing a surgical mask and avoiding close contact with sick people, washing hands with soap and clean water as well as following cough etiquette are important and simple ways of prevention (3).

Antiviral therapy with neuraminidase inhibitors such as Oseltamivir recommended by the Infectious Diseases Society of America (IDSA) for the patients who are in high-risk groups or suffering from severe or progressive disease (6).

342 confirmed cases with 19 deaths have been reported in Iran until December 2019, which requires health system to pay more attention to preventive measures such as public education for vaccination, hand washing and cough etiquette, especially to high-risk groups (7).

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