Influenza

1.Influenza

Seasonal influenza (the flu) is an acute respiratory infection caused by influenza viruses. It is common in all parts of the world. Most people recover without treatment.

Influenza spreads easily between people when they cough or sneeze. Vaccination is the best way to prevent the disease.

Symptoms of influenza include acute onset of fever, cough, sore throat, body aches and fatigue. Treatment should aim to relieve symptoms. People with the flu should rest and drink plenty of liquids. Most people will recover on their own within a week. Medical care may be needed in severe cases and for people with risk factors.

There are 4 types of influenza viruses, types A, B, C and D. Influenza A and B viruses circulate and cause **seasonal epidemics** of disease.

- **Influenza A viruses** are further classified into subtypes according to the combinations of the proteins on the surface of the virus. Currently circulating in humans are subtype A(H1N1) and A(H3N2) influenza viruses. The A(H1N1) is also written as A(H1N1)pdm09 as it caused the pandemic in 2009 and replaced the previous A(H1N1) virus which had circulated prior to 2009. Only influenza type A viruses are known to have caused pandemics.
- **Influenza B viruses** are not classified into subtypes but can be broken down into lineages. Influenza type B viruses belong to either B/Yamagata or B/Victoria lineage.
- **Influenza C virus** is detected less frequently and usually causes mild infections, thus does not present public health importance.
- **Influenza D viruses** primarily affect cattle and are not known to infect or cause illness in people.

2. Signs and symptoms

Symptoms of influenza usually begin around 2 days after being infected by someone who has the virus.

Symptoms include:

- sudden onset of fever
- dry coughing
- headache
- muscle and joint pain
- severe malaise (feeling unwell)
- sore throat
- runny nose.

The cough can be severe and can last more than 2 weeks. Most people recover from fever and other symptoms within a week without medication. However, influenza can cause severe complications (e.g. bacterial pneumonia, myocarditis, encephalitis) or death, especially in people at high risk.

Influenza can worsen symptoms of other comorbidities. In severe cases influenza can lead to pneumonia with sepsis. People with other medical issues or who have severe symptoms should seek medical care.

Hospitalization and death due to influenza occur mainly among high-risk groups.

In industrialized countries most deaths associated with influenza occur among people aged 65 years or older.

The effects of seasonal influenza epidemics in developing countries are not fully known, but research estimates that 99% of deaths in children under 5 years of age with influenza related lower respiratory tract infections are in developing countries.

3. Transmission

Seasonal influenza spreads easily with rapid transmission in crowded areas, including schools and nursing homes. When an infected person coughs or sneezes, droplets containing viruses (infectious droplets) are dispersed into the air and can infect persons in close proximity. The virus can also be spread by hands contaminated with influenza viruses. To prevent transmission, people should cover their mouth and nose with a tissue when coughing and wash their hands regularly.

In temperate climates, seasonal epidemics occur mainly during winter, while in tropical regions, influenza may occur throughout the year, causing outbreaks more irregularly.

The time from infection to illness, known as the incubation period, is about 2 days, but ranges from 1–4 days.

4. Prevention

Vaccination is the best way to prevent influenza .Safe and effective vaccines have been used for more than 60 years. Immunity from vaccination goes away over time, and thus annual vaccination is recommended to protect against influenza.

The vaccine may be less effective in the elderly, but it will make the illness less severe and reduce the chances of complications and death.

Vaccination is especially important for people at high risk of influenza complications and their carers.

(1) Annual vaccination is recommended for:

- pregnant women
- children aged 6 months to 5 years
- people over 65 years old
- people with chronic medical conditions
- health workers.

(2) Other ways to prevent influenza:

- wash and dry your hands regularly
- cover your mouth and nose when coughing or sneezing
- dispose of tissues correctly
- stay home when feeling unwell
- avoid close contact with sick people
- avoid touching your eyes, nose or mouth.

5. Post-Vaccination Instructions for Student Influenza Vaccination

- Fever Observation: About 1-2% of recipients may experience a fever within 48 hours after vaccination. When seeking medical care, please inform the doctor of your vaccination history. If the fever persists over 48 hours, be alert for other possible infections.
- Emergency Symptoms: If severe symptoms occur, such as persistent fever, changes in consciousness or behavior, difficulty breathing, or rapid heartbeat, seek medical help immediately and notify school staff.

- Personal Hygiene: While vaccination reduces the risk of influenza infection, it does not prevent common colds caused by other viruses. It is recommended to maintain good personal hygiene and wash hands frequently to stay healthy.
- Vasovagal Reactions (Fainting) in Group Vaccination Settings: Fainting often occurs during group vaccination of adolescents, primarily due to psychological stress or fear of needles, resulting in dizziness or nausea. This is unrelated to vaccine safety and has no long-term effects. If symptoms persist after the individual returns home, immediate medical attention is advised.
- Specific Medical Conditions: Individuals with coagulation disorders or those taking anticoagulants should apply pressure to the injection site for at least 2 minutes and closely monitor for any signs of persistent bleeding or hematoma.

Source: WHO and MOHW

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