



GUIDELINES FOR PANDEMIC INFLUENZA (H1N1)

Appearing in April 2009, the novel strain of H1N1 (previously called Swine Influenza) virus falls in the group of Influenza A viruses. Thought to be reassorted in Swine, the virus causes acute respiratory illness along with high-grade fever, dry cough, headache, muscle and joint pains, sore throat, runny nose and sometimes vomiting and diarrhoea. Disease can spread through droplets generated by coughing or sneezing of infected person or touching objects contaminated with patient's secretions. The disease has an incubation period of 1-7 days. The infected person can spread the virus to its close contacts from one day prior to the appearance of symptoms to 7 days after their disappearance.

Human-to-human transmission is rapidly occurring and disease has already affected more than 135 countries, territories and areas. Although, the illness in the affected patients has mostly been mild with mortality rate (0.45 %) comparable to seasonal influenza yet the threat of its further genetic modification to acquire more virulence cannot be ruled out. Due to its rapid spread across the globe, WHO has declared global alert level 6 meaning full-fledged Pandemic.

In Pakistan, laboratory based surveillance to detect novel H1N1 is being carried out by NIH and no case has been reported till issuance of current SAAL issue. A high level of suspicion is however; required by all clinicians to detect any possible case. Disease is notifiable under IHR 2005 and any suspected patient along with throat swab sample must be immediately reported to NIH, Islamabad.

Case Definitions:

Confirmed case: A confirmed case of new influenza A (H1N1) virus infection is defined as an individual with laboratory confirmed new influenza A (H1N1) virus infection by one or more of the following tests: -

- real-time RT-PCR
- viral culture
- four-fold rise in new influenza A (H1N1) virus specific neutralizing antibodies.

Probable case of new influenza A (H1N1) virus infection is defined as an individual with an influenza test that is positive for influenza A, but is unsubtypeable by reagents used to detect seasonal influenza virus infection OR

An individual with a clinically compatible illness or who died of an unexplained acute respiratory illness who is considered to be epidemiologically linked to a probable or confirmed case.

Management:

- The goal of treatment is to alleviate the symptoms. Antibiotics are not effective against viruses. Bed rest is advisable until the fever is subsided.
- A mild analgesic such as paracetamol 0.5 - 1 g every 4-6 hours usually relieves the headache and generalized pains and warm fluids help to relieve the discomfort of the symptoms.

- Pholcodine 5-10 mg 3-4 times daily may be used to suppress unproductive cough.
- Specific treatment of complications such as bronchitis and pneumonia may be necessary.
- Virus has been found sensitive to oseltamivir and zanamivir but resistant to amantadine and remantadine
- No vaccine is available as yet for H1N1 Novel virus strain.

Sample Collection & Transportation:

- Collect throat and nasal swabs and nasopharyngeal aspirates from patient and tracheal aspirate or broncho-alveolar lavage fluid from intubated patients place immediately in Viral Transport Medium (VTM).
- Collect 5 ml blood or serum for serology (acute and convalescent if possible).
- Transport specimens' bottles and tubes in upright position, secured in a screw cap container or in a rack in a transport box having enough absorbent paper around them to soak up all the liquid in case of spillage.
- Sample for virus isolation collected in VTM can be taken to lab within 4 days, kept at +4°C and frozen at -70°C if stored.
- In the absence of freezers or VTM, ethanol preserved swabs are a possible alternative. Storage of such specimens at 4°C (in a standard refrigerator) is better than at room temperature.
- Blood/serum samples should be frozen at -70°C for PCR and at -20°C or lower for antibody determination but can also be stored at +4°C for about one week.
- Specimens for influenza virus isolation should not be stored or transported in dry ice unless they are sealed, taped and double plastic-bagged as CO₂ (dry ice) can rapidly inactivate the virus if it gains access to the specimens.

Prevention & Control Measures:

- Wash your hands thoroughly with soap and water. Avoid touching mouth and nose, close contact with ill people and crowded settings
- Improve ventilation in living places
- Practice good health habits including good sleep, nutritious food with plenty of fluids and physically active.
- Encourage sufferer to cover their faces with a mask or handkerchief when coughing and sneezing.
- Annual winter vaccination (Seasonal anti influenza vaccine) is recommended for patients suffering from chronic pulmonary, cardiac or renal disease.
- Infected patients should not travel. Younger and older people and pregnant women are at greater risk.
- Isolation of suspected patients
- Stockpiling of required medicine and logistics.
- Activation of district and provincial Influenza Committees / Task Forces.