

Treatment of Influenza A (H1N1)

Dr M. Fezal RUJEEDAWA
Consultant Chest Physician
MOH&QL

Who to treat

- Hospitalization or antiviral therapy is not likely to be required for most patients
- Persons with suspected H₁N₁ influenza with uncomplicated febrile illness do not require treatment unless they are at risk for influenza complications

Treatment is recommended for:

- All hospitalised patients with confirmed or suspected influenza H₁N₁
- Patients who are at a higher risk for influenza complications

High Risk Groups

- Children <5 years
- Adults 65 of age and older
- Persons suffering from chronic pulmonary disease, cardiovascular, renal, hepatic, and metabolic diseases (diabetes)
- Immunosuppression (medications or HIV)
- Pregnant women
- Persons <19 years on long term aspirin therapy
- Residents of nursing homes

Antiviral Therapy

- The new H₁N₁ virus is currently
 - susceptible to NAIs (oseltamivir and zanamivir)
 - Resistant to M₂-inhibitors (amantadine and rimantadine)
- NAIs might reduce severity and duration and might contribute to prevent progression of severe disease and death (based on seasonal influenza, H₅N₁ influenza studies and *in vitro observation*)

Antiviral Therapy (2)

- **May be beneficial especially in:**
 - Pregnant women
 - Patients with progressing disease or pneumonia
 - Patients with underlying conditions
- **Can be used:** ideally early, and at any stage of active disease when ongoing viral replication is observed
- **Important pharmacological differences of oseltamivir and zanamivir**
 - Oseltamivir: administered orally, higher systemic level. Recommended treatment for lower respiratory tract complications
 - Zanamivir: oral inhalation , low systemic absorption

Antibiotic Therapy

- Antibiotic chemoprophylaxis should not be used
- Pneumonia: follow recommendations from guidelines for community-acquired pneumonia
- Seasonal and past pandemics have been associated with and increase in *Staphylococcus aureus* infections
- Ventilator-associated pneumonia or hospital acquired pneumonia caused by typical nosocomial pathogens have been reported

Oxygen Therapy

- Monitor oxygen saturation by pulse oximetry at presentation or triage and routinely during subsequent care
- Provide supplemental oxygen to correct hypoxaemia
- Maintain oxygen saturation > 90%
- Patients with severe hypoxaemia need high-flow oxygen delivered by mask
- Difficulties in compliance may require involvement of nursing staff and family members

Corticosteroids

- Should **NOT** be used routinely to treat patients with influenza A(H1N1) virus infection
- Low doses may be considered for patients with septic shock who require vasopressors and have suspected adrenal insufficiency.
- Prolonged use can result in serious adverse events including opportunistic infections and possible prolonged viral replication

Advance Respiratory Support

- Treatment of ARDS should be based upon evidence-based guidance
- Lung protective mechanical ventilation strategies should be used

Antiviral Chemoprophylaxis

- Household close contacts of a confirmed or suspected case
- School children who are at risk of complications (children with certain chronic medical conditions) who has close contact (face to face) with a confirmed or suspected case

Recommended antiviral treatment regimens

Oseltamivir

Oseltamivir is indicated for treatment of patients one year of age and older. For adolescents (13 to 17 years of age) and adults the recommended oral dose is 75 mg oseltamivir twice daily for 5 days. For infants older than 1 year of age and for children 2 to 12 years of age recommended doses are as follows:

15kg or less	30 mg orally twice a day for 5 days
15-23kg	45 mg orally twice a day for 5 days
24-40kg	60 mg orally twice a day for 5 days
>40kg	75 mg orally twice a day for 5 days
