ERMC Provider Tool for Diagnosis, Treatment, and Prevention of H1N1 Flu – 26 OCTOBER 2009

(Subject to change as additional clinical and epidemiological data become available)

- All clinical setting should screen patients for signs and symptoms of febrile respiratory illness.
- If influenza is suspected in patients with severe illness or at high risk for complications, INITIATE empiric treatment with oseltamivir (Tamiflu®) or zanamivir (Relenza®) as soon as possible.
- Do not delay treatment pending laboratory confirmation of influenza.
- Diagnostic lab testing for 2009 H1N1 influenza should target patients who are sick enough to be hospitalized; are at higher risk for serious illness or complications; and certain healthcare workers.
- Real-time PCR is the preferred laboratory test for identifying the 2009 H1N1 influenza virus, rapid antigen tests have poor sensitivity for this virus and a negative result does not rule out infection.
- Consider antivirals even if onset of symptoms has been > 48 hours.
- Supplies of Tamiflu are limited! Not all patients with influenza like illness should be treated. Most healthy people with ILI will recover uneventfully without treatment.
- Antiviral prophylaxis should generally be reserved for persons at higher risk for influenza-related complications who are household or close contacts of someone with influenza.
- Inquire about high-risk family members at home and consider prophylaxis versus watchful waiting.
- Clinics in areas where 2009 H1N1 influenza is not established in their community many continue to perform diagnostic lab testing on patients with clinical illness; consult with local Public Health.
- Refer to ERMC Algorithm for Testing and Treatment of Suspected H1N1 Influenza - 26 October 2009.

Consider 2009 H1N1 (pandemic) Influenza A in any patient with influenza-like illness (ILI):

1. Acute febrile respiratory illness - fever (>100ºF/37.8ºC) or history of fever at home - plus cough, sore throat, rhinorrhea, or nasal congestion, in absence of known etiology
2. In addition to symptoms typical of ILI, persons infected with 2009 H1N1 flu virus have also reported body aches, headache, chills, fatigue, vomiting and diarrhea.
3. Severe symptoms of influenza include respiratory distress, hypoxia, pneumonia, tachypnea, acute respiratory distress syndrome OR atypical symptoms (e.g. afebrile acute respiratory illness) in severely immunocompromised patients (transplant, severe immunodeficiency), without known etiology.

Groups at Higher Risk for Severe Illness or Complications from 2009 H1N1 Influenza:

The following patients should be considered high risk and treated empirically with antiviral medications:

- Children younger than 2 years of age
- Adults 65 years of age and older
- Pregnant women and women up to 2 weeks postpartum
- Children and adolescents (younger than 19) who are receiving long-term aspirin
- Persons of any age with the following medical conditions:
  - Chronic pulmonary disease (including asthma)
  - Cardiovascular disease (except isolated hypertension)
  - Renal, hepatic, hematologic, or metabolic disorders (including diabetes)
  - Disorders that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders)
  - Immunosuppression, including that caused by medication or HIV infection

Additional Information Regarding Treatment:

1. Most influenza patients can be properly treated with symptomatic medications and rest.
2. The antiviral medications Tamiflu® and Relenza® have been effective against the 2009 H1N1 virus and may lessen severity of disease, but these medications are not without side effects and are not necessary to treat all cases. This influenza virus is resistant to amantadine and rimantadine.
3. Children ages 2-4 years without high risk conditions and who are not severely ill do not necessarily require Tamiflu treatment. Clinical judgment should guide treatment decisions.

Oseltamivir (Tamiflu)		Treatment (5 days)	Prophylaxis (10 days)
Adults		75-mg capsule twice per day	75-mg capsule once per day
Children ≥ 12 months	15 kg or less	60 mg per day divided into 2 doses	30 mg once per day
	16-23 kg	90 mg per day divided into 2 doses	45 mg once per day
	24-40 kg	120 mg per day divided into 2 doses	60 mg once per day
	>40 kg	150 mg per day divided into 2 doses	75 mg once per day
Children <12 months	< 3 months	12 mg twice daily	Not recommended unless situation judged critical due to limited data on use in this age group
	3-5 months	20 mg twice daily	20 mg once daily
	6-11 months	25 mg twice daily	25 mg once daily

Refer to the latest CDC guidelines on antivirals at www.cdc.gov/h1n1flu/recommendations.htm.

Postexposure Prophylaxis - Prophylaxis with Tamiflu may be considered in certain situations:
1. People at high-risk for complications and who are a close contact of (living or working with) someone with confirmed, probable, or suspected 2009 H1N1 influenza during their infectious period.
2. Healthcare personnel or first responders who have had a recognized, significant, unprotected close contact exposure to someone with 2009 H1N1 influenza during their infectious period.
3. Post-exposure chemoprophylaxis should not be used for healthy children or adults based on potential exposures in the community, school, camp, or other settings.
4. Prophylaxis is not recommended if >48 hours have elapsed since last contact with an infectious person. Watch carefully for development of symptoms (may acquire flu from another source).
5. Watchful waiting with an emphasis on early treatment is an alternative to chemoprophylaxis after a suspected exposure. Healthcare providers should use clinical judgment regarding situations where early recognition of illness and treatment might be an appropriate alternative to prophylaxis.
6. Consider risk/benefit, especially for pregnant women and very young children. Tamiflu prophylaxis is not recommended for infants < 3 months of age: see www.cdc.gov/h1n1flu/recommendations.htm.

Home Isolation and Exclusion Recommendations:
1. Counsel individuals with ILI to stay at home or in their barracks (no school or work) until at least 24 hours after they are free of fever (temperature below 100°F) without fever reducing medications.
2. Reinforce hand and respiratory hygiene measures to prevent spread as some individuals will continue shedding virus after their fever resolves but at much lower levels.
3. Healthcare workers may return to work after a 24 hour fever free period but cannot care for immune-compromised patients for 7 days from symptom onset and until 24 hours without fever, whichever is longer.
4. More stringent guidelines may be appropriate for certain military and operational situations. Contact your local Preventive Medicine/Public Health Officer/PHEO for further guidance.
5. These isolation/exclusion periods are recommended regardless of antiviral treatment.

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