Treatment and Prophylaxis

October 22, 2009

Antiviral Treatment for Influenza (10/22/09)

Because testing is limited, most cases of pandemic H1N1 influenza will not be formally diagnosed. Distinguishing between seasonal and pandemic H1N1 does not alter the appropriate care of patients with influenza-like illness (ILI). Most pandemic H1N1 flu cases in the USA have been mild and do not require antiviral treatment. Therefore antiviral treatment is not specifically indicated unless the case is hospitalized OR at high risk for complications of influenza. Antiviral treatment is for 5 days and, if possible, should be initiated within 48 hours of symptom onset.

Early empiric antiviral treatment is strongly recommended for all hospitalized patients with acute febrile respiratory illness, including hospitalized patients with presumed community acquired pneumonia.

People at high risk for influenza complications include:

- Children age 4 years and younger, especially children younger than age 2 years
- Adults age 65 and over
- Pregnant women
- Residents of nursing homes and other chronic-care facilities
- Persons younger than 19 years of age and receiving long-term aspirin therapy
- Persons with the following conditions:
  - chronic pulmonary (including asthma), cardiovascular (except hypertension), renal
  - hepatic, hematological (including sickle cell disease), or metabolic disorders (including
  - diabetes)
  - immunosuppression, including that caused by medications or HIV infection
  - any condition that can compromise respiratory function or the handling of respirator secretions or that can increase the risk of aspiration (e.g., cognitive dysfunction, spinal cord injuries, severe seizure disorders, or other neuromuscular disorders)

Please exercise prudent judgment in prescribing antiviral medicines for patients not meeting the above criteria, such as persons with mild influenza-like illness who are not at high risk for complications of influenza. These patients should be instructed to stay home until 24 hours after their fever has resolved. Stress respiratory hygiene in the household and inquire about household and other close contacts who are at high risk for complications of influenza, since they may benefit from chemoprophylaxis.

Antiviral Post-Exposure Chemoprophylaxis for Influenza (10/22/09)

Chemoprophylaxis should be considered in the following situations:

- During an outbreak in a closed facility such as a nursing home or long-term residential facility, all residents and staff should be offered prophylaxis.
- Health care personnel, public health workers, or first responders who have had a recognized, unprotected close contact exposure to a person with confirmed, probable, or suspected 2009 H1N1 or seasonal influenza during that person's infectious period.
- Asymptomatic household and other close contacts of ill persons with confirmed or suspected influenza who are at high risk for complications of influenza should be offered prophylaxis.

In general, hospitals, other medical facilities, and physicians should manage exposures to cases of ILI, laboratory-confirmed cases of influenza, and probable and confirmed novel H1N1 influenza in the same manner as for seasonal influenza. Hospitals should review policies and recommendations regarding prophylaxis of health care workers for exposures to influenza. The indication for considering post-exposure chemoprophylaxis is based upon close contact with a person who has laboratory evidence of influenza virus during the infectious period of the case. Healthcare institutions should not rely on influenza chemoprophylaxis for preventing influenza in the healthcare setting.

Duration of antiviral chemoprophylaxis post-exposure is 10 days after the last known exposure to a case of influenza. Post-exposure prophylaxis is not necessary if the exposure occurred more than 7 days earlier. Duration of antiviral chemoprophylaxis in outbreak settings is for a minimum of two weeks. If new cases continue to appear, duration may be extended.

For more information about influenza antiviral medications, including contraindications and adverse effects, go to:

- www.cdc.gov/flu/professionals/antivirals/side-effects.htm
- www.cdc.gov/mmwr/preview/mmwrhtml/rr5707a1.htm
- Please report adverse events from influenza antivirals to the FDA: www.fda.gov/medwatch

Tables on the next page provide information on resistance to and recommended dosing for antiviral medications.

Table 1. Summary of Antiviral Resistance, 2008-2009

	Influenza Viruses			
Antiviral	**Pandemic H1N1**	**Seasonal A (H1N1)**	**Seasonal A (H3N2) B**	**Seasonal B**
Adamantanes	Resistant	Susceptible	Resistant	No activity
Oseltamivir	Susceptible	Resistant	Susceptible	Susceptible
Zanamivir	Susceptible	Susceptible	Susceptible	Susceptible

Table 2. Antiviral Medication Dosing Recommendations for Treatment or Chemoprophylaxis of 2009 H1N1 Infection
(from: http://www.cdc.gov/h1n1flu/recommendations.htm)

Medication		Treatment (5 days)	Chemoprophylaxis (10 days)
Oseltamivir			
Adults			
		75-mg capsule twice per day	75-mg capsule once per day
Children ≥ 12 months			
Body Weight (kg)	Body Weight (lbs)		
≤15 kg	≤33lbs	30 mg twice daily	30 mg once per day
> 15 kg to 23 kg	>33 lbs to 51 lbs	45 mg twice daily	45 mg once per day
>23 kg to 40 kg	>51 lbs to 88 lbs	60 mg twice daily	60 mg once per day
>40 kg	>88 lbs	75 mg twice daily	75 mg once per day
Zanamivir			
Adults			
		10 mg (two 5-mg inhalations) twice daily	10 mg (two 5-mg inhalations) once daily
Children (≥7 years or older for treatment, ≥5 years for chemoprophylaxis)			
		10 mg (two 5-mg inhalations) twice daily	10 mg (two 5-mg inhalations) once daily