

## Influenza: To Treat or Not To Treat?

Centers for Disease Control & Prevention. Antiviral agents for the tx and chemoprophylaxis of influenza—rec's of the Advisory Committee on Immunization Practices (ACIP). *Morb Mortal Wkly Rep.* 2011;60:1-24.  
Dugas AF, Rothman RE. *Annals of EM.* Sept 2011; 58(3): 299-304.



After the 2009 H1N1 pandemic, the predominant seasonal influenza A strain is H1N1.

### Antiviral agents:

- Adamantanes class: **Amantadine, Rimantidine**
  - Active only against influenza A
- Neuroaminidase inhibitors class: **Oseltamivir (Tamiflu), Zanamivir (Relenza)**
  - Active against influenza A and B

### Influenza patients at high risk for complications (eg. bacterial pneumonia):

- Age <5 years old (especially <2 years)
- Age ≤ 18 years old on long-term aspirin
- Age ≥ 65 years old
- American Indian or Alaska Native ethnicity
- Comorbidities
  - Chronic pulmonary disease
  - Cardiovascular disease (excluding hypertension)
  - Renal, hepatic, hematologic, metabolic disorders (including DM)
  - Neurologic and neurodevelopment conditions (including seizures)
- Immunosuppressed (HIV or on immunosuppressive meds)
- Morbid obesity (BMI ≥ 40 kg/m<sup>2</sup>)
- Pregnancy or within 2 weeks postpartum
- Residents of nursing homes or chronic-care facilities

### Recommendations:

1. Give antiviral tx ASAP for confirmed or suspected influenza who have severe, complicated, or progressive illness or who require hospitalization. *Observational study with >700 patients admitted with influenza showed that oseltamivir reduced mortality (hazard ratio=0.27) and earlier hospital discharge (hazard ratio=1.28)*
2. Give antiviral tx ASAP for outpatients with confirmed or suspected influenza who are at high risk for complications (see list above). Use clinical judgment.
3. Give either **oseltamivir** or **zanamivir** because >99% influenza strains are sensitive. High levels of H1N1 resistance to **amantadine** and **rimantidine**.
4. **Oseltamivir** may be used for tx or chemoprophylaxis for infants <1 year old.
5. Consider giving antiviral tx for confirmed or suspected influenza WITHOUT risk factors for severe illness, if tx can be started ≤ 48 hours of illness onset. *Can reduce duration of uncomplicated influenza A and B illness by 1 day.*
6. Clinicians should monitor local antiviral resistance surveillance data because resistance patterns may change over time.