

Seasonal Influenza

Adult Patients

Diagnosis

- Respiratory virus testing should be considered in individuals presenting during influenza season with fever and influenza-like symptoms of myalgia, arthralgia, headache, and/or sore throat. Influenza testing is not needed for all patients with signs and symptoms of influenza to make antiviral treatment decisions during flu season.
- A clinical diagnosis of influenza should be made for outpatients with signs and symptoms consistent with influenza. For outpatients and emergency room patients, results of diagnostic testing are not available in a timely manner to inform clinical decision making.
- Testing is appropriate for hospitalized inpatients, especially if a positive test would result in a change in clinical management.
- Nasopharyngeal swab specimens are the preferred specimen for the purpose of respiratory virus testing. A new influenza A/B/RSV PCR (#7255) is the diagnostic test offered at UCLA.
- Please see the CDC's flu site for further details.
<http://www.cdc.gov/flu/professionals/diagnosis/>

Treatment for Inpatients

- Treatment can shorten the duration of symptoms and may reduce the risk of complications from influenza.
- Benefit is greatest when treatment is started early, especially within 48 hours of illness onset.
- Antiviral treatment is recommended as early as possible for any patient with confirmed or suspected influenza who is hospitalized, has severe, complicated, or progressive illness, or who is at risk for complications.
- Decisions about starting treatment should not wait for laboratory confirmation of influenza
- Consideration can be given to treating immunocompromised patients who are outside the 48 hour window, although no data exist to show significant benefit.
- Antiviral recommendations for the 2014 influenza season were oral oseltamivir (Tamiflu) and inhaled zanamivir (Relenza)
- The recommended duration of antiviral treatment is 5 days. Treatment does not need to continue until symptoms resolve, as some symptoms, such as fatigue and cough, may persist for weeks.
- Please see the CDC's flu site for further details.
<http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>

Antiviral Agents

Medication	Adult Dosing	Side Effects	Notes
Oseltamivir	Treatment: 75 mg PO BID x 5d Prophylaxis: 75 mg PO daily	Common: nausea, vomiting Severe: hypersensitivity, neuropsychiatric	Dose adjustment needed for GFR <30 ml/min

Zanamivir	Treatment: 10 mg (2 oral inhalations) BID x 5d Prophylaxis: 10 mg (2 oral inhalations) daily	Common: diarrhea, nausea, cough, headache, and dizziness Severe: bronchospasm, hypersensitivity	Should NOT be used in patients with chronic airway diseases
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Infection Control

- All established Occupational Health Services and Hospital Epidemiology policies should be followed by all UCLA employees. Policy IC002 (<http://www.mednet.ucla.edu/Policies/pdf/enterprise/HSIC002.pdf>) and Policy IC005 (<http://www.mednet.ucla.edu/Policies/pdf/enterprise/HSIC005.pdf>)
- All individuals with suspected influenza infection should be placed on Droplet Precautions. When outside their room (e.g. during transport) patients should wear a mask.
- All healthcare workers are required to receive the influenza vaccine yearly per Los Angeles County Dept of Public Health. Healthcare workers who refuse to be vaccinated must wear a mask when providing patient care per hospital policy.
- All healthcare workers, as well as family/visitors must wear a surgical mask while caring for patients with confirmed or suspected influenza. These precautions should be maintained until it is determined that the cause of symptoms is not an infectious agent that requires Droplet Precautions.
- Employees who are febrile or have flu-like symptoms during flu season should stay home. If they become sick while at work, they must go to Occupational Health Services. <http://ohs.uclahealth.org>
- Employees who have cold symptoms, such as cough and runny nose, should stay home. It is NOT permitted, nor safe, to wear a surgical mask during patient contact in an effort to avoid transmission to patients.

Pediatric Patients

Early antiviral treatment can shorten the duration of fever and illness and may reduce the risk of complications from influenza especially if administered within the first 48 hours of illness onset.

Who qualifies for treatment?

Those with confirmed or suspected influenza who are:

- Hospitalized or severe, complicated, or progressive illness
- At higher risk for complications including:
 - those <2 years and >65 years, persons <19 years who are on long-term aspirin therapy
 - persons with chronic medical conditions or immunosuppressed (transplant population, HIV-infected)
 - pregnant women, Native American/Alaskan Natives
 - morbidly obese patients with BMI ≥ 40
- Consider treatment of previously well symptomatic child on the basis of clinical judgment

Treatment

Antiviral treatment should be started as soon as possible after symptom onset, preferably within 48 hours of symptom onset. Decisions to start antiviral treatment should not wait for laboratory confirmation of influenza. In hospitalized patients and those with severe, complicated, and progressive illness, antiviral treatment after 48 hours of symptom onset may still be beneficial.

Treatment duration for antiviral treatment is 5 days. Longer treatment courses can be considered in those who remain severely ill.

Chemoprophylaxis

Consider in high risk patients, such as immunosuppressed populations that may have not responded to vaccination, at high risk and have come in contact with a known influenza exposure. Chemoprophylaxis should be started within 48 hours since last exposure to an infectious person and should be continued for 7 days after the last exposure.

OSELTAMIVIR (TAMIFLU)

	Treatment	Prophylaxis
Age <2 weeks	Not approved	Not approved*
Age 2 wks to <1 yr	3mg/kg/dose po BID	Not approved*
≥1 yr & ≤15kg	30mg po BID	30mg po daily
>15kg to ≤23kg	45mg po BID	45mg po daily
>23kg to ≤40kg	60mg po BID	60mg po daily
>40kg	75mg po BID	75mg po daily

*Prophylaxis can be considered in critical clinical situations

Treatment Duration: 5 days

Prophylaxis Duration: 7 days after last exposure

Contraindications: Dose adjust for GFR <30 mL/min

ZANAMIVIR (RELENZA)

	Treatment	Prophylaxis
Age <5 yrs	Not approved	Not approved
Age ≥5 yrs to <7 yrs	Not approved	10mg (2 inhalations) daily
Age ≥7 yrs	10mg (2 inhalations) BID	10mg (2 inhalations) daily

Treatment Duration: 5 days

Prophylaxis Duration: 7 days after last exposure

Contraindications: Do not use in patients with underlying respiratory disease