

Interim Guidelines for the Prevention and Control of Influenza in Nursing Homes  
Virginia Department of Health  
Updated 05/18/2009

Settings such as nursing homes that house persons at high risk for influenza-related complications need contingency plans for rapid diagnostic testing for influenza and for the use of antiviral medications for prophylaxis and treatment. Clinicians should maintain a high degree of suspicion for influenza when respiratory illness occurs. Typically, influenza is characterized by the sudden onset of fever, headache, myalgia, dry cough, and malaise; subsequently, the respiratory symptoms of sore throat, nasal congestion and cough become more prominent. In elderly persons, characteristic signs and symptoms may be altered or absent.<sup>1</sup> Predominant symptoms might include cough and congestion with a low-grade/no fever.

To date, outbreaks of illness due to novel influenza A (H1N1) have not been identified in long-term care facilities in the United States. However, we anticipate that the novel virus will continue to spread in the U.S. throughout the summer, and that outbreaks of related illness will be reported. Viral surveillance in Virginia has identified the presence of seasonal influenza strains circulating in the state, in addition to the novel influenza A (H1N1) virus. In addition, many specimens collected from Virginia patients with influenza-like illness tested negative for influenza. Currently, we recommend that long-term care facilities maintain heightened surveillance for respiratory illness and immediately contact the local health department if an increase in respiratory illness is identified. The health department is available to assist in coordinating influenza testing with the state public health laboratory and in making control recommendations.

VDH advises nursing homes to take the following steps throughout the summer:

- Advise visitors to the facility (e.g., via posted notices) that persons with a febrile respiratory illness should not visit the facility for a minimum of 7 days following the onset of illness or for 24 hours after symptoms have resolved (whichever is longer).
- Advise clinical staff to monitor residents daily for respiratory illness. Nursing home staff should immediately contact the health department if an increase in cases of respiratory illness is observed. Nursing homes should have contact information for health district staff available to respond to outbreaks.
- Advise all staff working at the facility to monitor themselves daily for febrile respiratory illness. Staff should not report to work while ill. Individuals with a febrile respiratory illness should remain out of work for 7 days following onset of symptoms or for 24 hours after symptoms have resolved (whichever is longer).
- Implement a standing orders program so that your facility is prepared to rapidly administer antiviral medications in the event of an outbreak. Standing orders programs authorize nurses and pharmacists to administer vaccinations and/or medications without a physician's exam according to an institution or physician-approved protocol.<sup>2</sup> See Attachment 1 for a related memo from the Department of Health and Human Services.
- Screen newly admitted residents for respiratory illness. Isolate any newly admitted residents with respiratory symptoms as a precaution pending diagnosis. Residents being transferred from a facility with a known outbreak of novel influenza A (H1N1) should be preemptively placed in a separate room apart from other residents, even if asymptomatic, for up to seven days.
- Maintain a supply of surgical-style masks and disposable N-95 respirators (or equivalent) for staff use. Respirator use should be in the context of a complete respiratory protection program in accordance with Occupational Safety and Health Administration (OSHA) regulations. Staff should be medically cleared, fit-tested, and trained for respirator use, including: proper fit-testing and use of respirators, safe removal and disposal, and medical contraindications to respirator use.

When health departments receive reports of increased respiratory illness from nursing homes, the steps listed below should be followed.

#### *General Control Recommendations*

1. During an outbreak, nursing homes must maintain heightened surveillance for febrile and respiratory illness among residents and staff. Respiratory symptoms should be noted in the Flu and Respiratory Symptoms Log (See Attachment 3).
2. Staff should be reminded that they can spread influenza virus via their hands or through fomites (e.g., towels, medication cart items, etc.). Frequent handwashing should be emphasized.
3. Ill residents should be promptly placed in a private room with the door kept closed or cohorted together, away from the well, as much as possible. Staff should be assigned to work with either sick or well patients, but not circulated among both groups. Healthcare personnel entering the room of a patient in isolation should be limited to those performing direct patient care.
4. At a minimum, the following isolation precautions should be used for all patients being evaluated or in isolation for influenza virus infection:
  - a. Healthcare personnel should adhere to **Standard Precautions** during the care of a resident with symptoms of a respiratory infection. Gloves should be worn if hand contact with respiratory secretions or potentially contaminated surfaces is anticipated. Gowns should be worn if soiling of clothes with a resident's respiratory secretions is anticipated. Hands should be decontaminated before and after coming into contact with the patient and his/her environment, whether or not gloves are worn.
  - b. Healthcare workers should adhere to **Droplet Precautions** during the care of a resident with suspected or confirmed influenza for at least 7 days after the onset of illness or until 24 hours after symptoms have resolved (whichever is longer). At a minimum, staff should wear a surgical or procedure mask upon entering an ill patient's room. The mask should be removed and disposed of when leaving the resident's room. If resident movement or transport is necessary, have the resident wear a surgical or procedure mask, if possible. Droplet Precautions should be used by healthcare personnel when obtaining a clinical specimen; if splashes are anticipated, then eye protection should also be considered.
  - c. If novel influenza A (H1N1) is suspected as the cause of the outbreak, it is advised that all healthcare personnel who enter the rooms of patients in isolation consider wearing a fit-tested disposable N-95 respirator (or equivalent). Respiratory protection should be donned upon room entry.
5. Environmental surfaces should be cleaned and disinfected in accordance with standard facility protocols.
6. Cancel group activities and consider serving all meals in rooms.
7. Staff should not work while ill. Exclude staff with symptoms from patient care for 7 days following onset of symptoms or for 24 hours after symptoms have resolved (whichever is longer), when possible.
8. New admissions should be halted and visitation restricted until the outbreak is over (i.e., at least 7 consecutive days without any new cases). When admissions resume, any new admissions should receive antivirals prophylactically until one week after the outbreak is over. If possible, they may begin taking the antivirals prior to admission to the nursing home.

## Laboratory Testing

9. Laboratory testing during a suspected outbreak at a nursing home is **critical** and should be coordinated with the local health department.
  - The local health department should coordinate the submission of specimens to the Division of Consolidated Laboratory Services (DCLS). DCLS provides “flu kits”, which include materials for the collection and transport of specimens (e.g., nasopharyngeal swabs, viral transport media). Nasopharyngeal swabs collected within the first two days of illness are the specimens of choice.
  - While rapid antigen tests that distinguish between influenza A and B can provide some useful information, the tests may have low sensitivity; therefore, confirmatory testing at the state laboratory is strongly recommended.
  - Virginia surveillance data has indicated the presence of seasonal influenza strains as well as the novel influenza A (H1N1) virus circulating at this time. Because the circulating strains have different antiviral resistant patterns, during an outbreak, it is very important to know the influenza subtype. That information is used to determine appropriate prophylaxis and treatment regimens to follow in an outbreak situation.

## Antiviral Prophylaxis and Treatment

In the United States, the following prescription antiviral medications are approved for treatment and prophylaxis of influenza: oseltamivir and zanamivir (neuraminidase inhibitors); and amantadine and rimantadine (adamantanes).

Data from the Centers for Disease Control and Prevention (CDC) have indicated that the novel influenza A (H1N1) virus is sensitive to zanamivir and oseltamivir but is resistant to the adamantane antiviral medications. Seasonal influenza A (H1N1) circulating in the U.S. has shown high levels of resistance to oseltamivir.<sup>3</sup> While resistant viruses are not known to cause different or more severe symptoms compared to viruses that are sensitive, the presence of resistant viruses presents challenges for the selection of antiviral medications. In an outbreak setting, antiviral medications should be administered according to the guidelines in Table 1. General dosage and side effects information is noted in Table 2; however, the dosage for each resident should be determined individually. Standing orders in residents’ charts will facilitate rapid administration. Patients for whom antiviral drugs are contraindicated should have this noted in their charts.

10. Prophylaxis should be administered to all residents who have not had influenza symptoms and should continue for a minimum of 2 weeks. If surveillance indicates that new cases continue to occur, prophylaxis should be continued until approximately 7-10 days after illness onset in the last patient. Persons receiving antiviral prophylaxis should be actively monitored for potential adverse side effects and for possible infection with influenza viruses that are resistant to antiviral medications.
11. Prophylaxis should be offered to staff: (1) who have conditions that put them at high-risk for complications for influenza, and (2) who have had an unprotected, close contact exposure to a resident with influenza virus infection during that person’s infectious period.
12. For patients who are symptomatic, antivirals should be administered as treatment. Administer within first 48 hours of symptom onset according to the guidelines in Table 1.

<sup>1</sup>Centers for Disease Control and Prevention. Prevention and Control of Influenza; Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2008;57 (No. RR-7).

<sup>2</sup>Centers for Disease Control and Prevention. Adult immunization programs in nontraditional settings: quality standards and guidance for program evaluation—a report of the National Vaccine Advisory Committee and Use of standing orders programs to increase adult vaccination rates: recommendations of the Advisory Committee on Immunization Practices. MMWR 2000;49(No. RR-1):15-26.

<sup>3</sup>CDC Health Alert Advisory issued on December 19, 2008, entitled “Interim Recommendations for the Use of Influenza Antiviral Recommendations in the Setting of Oseltamivir Resistance Among Circulating Influenza A (H1N1) Viruses, 2008-09 Season.”

Table 1. Virginia Department of Health Recommendations for the Use of Antiviral Medications

<b>Outbreak Scenario</b>	<b>Prophylaxis for Outbreak Control</b>	<b>Treatment of Patients with Influenza</b>
Rapid Antigen Test Positive; Test does not distinguish between Influenza A and B	Administer for minimum of 2 weeks. If new cases occur, continue until ~ 7 to 10 days after illness onset in last patient. Zanamivir* or the nursing home and local health department may decide to await confirmatory test results at DCLS to make prophylaxis selection	Initiate treatment within 48 hours of onset of illness. Treat for 5 days. Zanamivir* or Combination treatment with Oseltamivir <u>and</u> Rimantadine** is an acceptable alternative
Positive A By Rapid Antigen Test	Zanamivir* or the nursing home and local health department may decide to await confirmatory test results at DCLS to make prophylaxis selection	Zanamivir* or Combination treatment with Oseltamivir <u>and</u> Rimantadine** is an acceptable alternative
Positive B By Rapid Antigen Test	Oseltamivir or Zanamivir*	Oseltamivir or Zanamivir*
Confirmed <b>seasonal Influenza A (H1)</b> by DCLS	Zanamivir* preferred; or Rimantadine** can be used if Zanamivir is contraindicated	Zanamivir* or Combination treatment with Oseltamivir <u>and</u> Rimantadine** is an acceptable alternative
Confirmed <b>novel Influenza A (H1N1)</b> or Influenza A (H3) by DCLS	Oseltamivir or Zanamivir*	Oseltamivir or Zanamivir*
Confirmed Influenza B by DCLS	Oseltamivir or Zanamivir*	Oseltamivir or Zanamivir*

Note. Rapid antigen tests may have low sensitivity. Testing at DCLS is always recommended if an outbreak is suspected.

\* Zanamivir is in a dry powder form and is administered through an inhaler. It is not recommended for people with underlying respiratory or cardiac disease. Administration in nursing home settings may be difficult due to the high-risk populations served and the potential difficulty inhaling the medication.

\*\* Amantadine can be substituted for rimantadine if rimantadine is unavailable; however amantadine has increased risk of adverse events.

*Information in the above table was adapted from information provided in the CDC Health Alert Advisory issued on December 19, 2008, entitled “Interim Recommendations for the Use of Influenza Antiviral Recommendations in the Setting of Oseltamivir Resistance Among Circulating Influenza A (H1N1) Viruses, 2008-09 Season.” and “Interim Guidance on Antiviral Recommendations for Patients with Novel Influenza A (H1N1) Virus Infection and Their Close Contacts” available at <http://www.cdc.gov/h1n1flu/recommendations.htm>*

Table 2. Antiviral Medications Approved for Use in the United States

Antiviral Medication	Trade Name	Flu type	Form	Contraindications and Side Effects	Dosage for $\geq 65$ years	Note
Amantadine	Symmetrel®	A	Available in capsule, tablet or syrup	Not recommended for those with seizure disorders, those on anticonvulsants, or those on antipsychotic drugs ; close observation advised when administered with other drugs affecting the CNS; side effects include GI (e.g., nausea, anorexia) and CNS disturbances (e.g., nervousness, insomnia, lightheadedness). Side effects are increased if administered with antihistamines or anticholinergic drugs.	Less than or equal to 100 mg once daily for prophylaxis and for treatment	Package insert should be consulted for dosage recommendations for administering to people with creatinine clearance $\leq 50$ mL/min/1.73m <sup>2</sup>
Rimantadine	Flumadine®	A	Available in tablet or syrup form	Not recommended for those with seizure disorders, those on anticonvulsants, or those on antipsychotic drugs; side effects include GI and CNS disturbances.	100 mg <u>once</u> daily for prophylaxis and for treatment	Rimantadine is preferred over amantadine for use in nursing home settings because of lower incidence of CNS side effects. Dosage should be reduced in those with renal function impairment. Dosage is by weight.
Oseltamivir	Tamiflu®	A and B	Capsule	Side effects include nausea and vomiting. Transient neuro-psychiatric events have been reported.	75 mg <u>once</u> daily for prophylaxis and <u>twice</u> daily for treatment**	A reduction in dosage is indicated for people with creatinine clearance of 10-30mL/min**
Zanamivir <sup>s</sup>	Relenza®		Dry powder administered through an inhaler	Not recommended for people with underlying respiratory or cardiac disease	10 mg (two inhalations) <u>once</u> daily for prophylaxis and <u>twice</u> daily for treatment	May be difficult to obtain. Administered through oral inhalation; patients will benefit from instruction and demonstration of the correct use of the device; delivery of the drug may be difficult with nursing home residents.

Note. Clinicians should consult the package insert of each antiviral medication for specific dosing information, approved indications and ages, contraindications, warnings, precautions, and adverse effects. Information in the table is taken from: Centers for Disease Control and Prevention. Prevention and Control of Influenza; Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2008;57 (No. RR-7) and Centers for Disease Control and Prevention Interim Antiviral Guidance for 2008-09, available at <http://www.cdc.gov/flu/professionals/antivirals/index.htm>.

\*\* For patients with creatinine clearance of 10-30mL/min, a reduction of the treatment dosage to 75 mg once daily and in the chemoprophylaxis dosage to 75 mg every other day is recommended. No treatment or prophylaxis dosing recommendations are available for patients undergoing routine renal dialysis treatment.

Attachment 1. Standing Orders Memo



**DEPARTMENT OF HEALTH & HUMAN SERVICES**

Centers for Medicare & Medicaid Services

7500 Security Boulevard  
Baltimore, MD 21244-1850

**Ref: S&C-03-02**

**DATE:** October 10, 2002

**FROM:** Director  
Survey and Certification Group  
Center for Medicaid and State Operations

**SUBJECT:** Change in requirement for signed physician's order for influenza and pneumonia vaccine

**TO:** Associate Regional Administrator  
Division of Medicaid & State Operations  
Region I–X  
State Survey Agency Directors

The purpose of this program memorandum is to provide information and guidance to regional offices, and state survey agency personnel regarding a new regulation that will remove the federal barrier requiring nursing home providers, home health agencies and hospitals to have individually signed physician's order for influenza and pneumococcal vaccines.

The Survey Procedures and Interpretive Guidelines for Long Term Care Facilities, Home Health Agencies and Hospitals require physicians to sign and date all orders. The new regulation allows nursing home providers, home health agencies and hospitals to adopt strategies to increase influenza and pneumonia vaccination rates such as institution or physician-approved protocols i.e., standing orders, that do not require individually signed physician orders. Accordingly, surveyors should not be citing providers that have adopted standing orders for influenza and pneumococcal vaccinations for the failure to have individually signed physician orders.

As a result of this issuance, effective immediately CMS is altering the guidance to states and regions. For long term care facilities, physicians must sign and date all orders with the exception of influenza and pneumococcal polysaccharide vaccines, which may be administered per physician-approved facility policy after an assessment for contraindications. For home health agencies, drugs and treatments are administered by agency staff only as ordered by the physician with the exception of influenza and pneumococcal polysaccharide vaccines, which may be administered per agency policy developed in consultation with a physician and after an assessment for contraindications. For hospitals, all orders for drugs and biologicals must be in writing and signed by the practitioner or practitioners responsible for the care of the patient as specified under §482.12© with the exception of influenza and pneumococcal polysaccharide vaccines, which may be administered per physician approved hospital policy after an assessment for contraindications.

CMS is supportive of practices of that improve influenza and pneumococcal immunization

coverage in long-term care facilities.

Page 2 – Change in requirement for signed physician's order for influenza and pneumonia vaccine.

Regional offices and state survey agencies should encourage nursing home facilities to provide residents with the opportunity to receive influenza and pneumococcal vaccinations.

**Effective date:** This guidance is effective immediately.

**Training:** This memorandum should be shared with all survey and certification staff, surveyors, their managers, the state/regional training coordinators.

Steven A. Pelovitz



