

Influenza Outbreak Guidelines

Reporting Requirements

- Outbreaks of disease in long-term care settings are reportable to the Health Department. Call (253) 798-6534 to report, or during business hours call (253) 798-6410, press "0" for an operator, and ask to speak to a nurse. After hours, we are available through our answering service at (253) 798-6410.
- Influenza-associated death is reportable to the Health Department within three business days.

General Information about Influenza

- Incubation period: one to four days.
- Transmitted by respiratory droplet.
- Infectious period: for adults, from one day prior to onset until seven days after onset of symptoms.
- Children can be communicable up to ten days after onset of symptoms.
- Outbreaks of influenza do occur even in highly vaccinated populations. The effectiveness of the flu vaccine is variable from year to year. Influenza vaccine is most effective in children and younger, healthy individuals; it is least effective in the elderly and immune compromised.

Detecting an Outbreak

During the time period **October 1 through April 30**, staff must be diligent in observing symptoms of influenza like illness and promptly report findings to infection control. Outbreak control measures should be put in place if:

- Influenza is diagnosed in at least one resident; or
- Two or more residents in the facility or an area of the facility (e.g., separate unit) develop fever with respiratory symptoms during a one-week period.

During influenza season, occurrence of acute respiratory illness in several residents within a short timeframe should be considered due to influenza until proven otherwise, regardless of whether the affected residents had been vaccinated.

Laboratory Confirmation

If influenza is suspected, it should be confirmed through laboratory testing. Rapid influenza testing can provide immediate results at the point of care in doctors' offices, emergency departments or urgent care facilities. If the patient does not need to leave the long-term care setting for medical evaluation, private laboratories are usually able to provide influenza testing, or it can be provided through your local hospital laboratory for a more rapid turn-around.

Rapid influenza test results need to be interpreted with caution, based on the presence or absence of known circulating influenza in the community. During influenza season, when flu is known to be circulating, a negative result may be false in a person with classic influenza symptoms. False-positive rapid tests for flu are more likely to occur very early or very late season, when influenza activity is low. Influenza PCR is a more reliable test, but very expensive and sometimes not available. Influenza culture takes from 3 to 10 days, so it is not useful for clinical decision making.

Early in the influenza season, Washington State Public Health Laboratory (WSPHL) is interested in receiving specimens for culture to identify circulating viruses. It is best to confirm cases of influenza early in the season at WSPHL, and testing to identify circulating viruses can be done throughout the season. In addition, laboratory testing for outbreak situations is usually available at WSPHL, but rapid test results may take up to three days due to the need to transport specimens to the state lab. You must call the local health department to facilitate any testing done at WSPHL.

In the event of an outbreak of influenza-like illness, get laboratory specimens on three to five patients within 48 hours of onset of symptoms. It is not necessary to perform influenza testing on all symptomatic patients; what you are trying to do is to confirm the presence of influenza in the facility, and this can be done with a sample of patients. Do not test asymptomatic patients or staff.

Developing a Case Definition

The symptoms of influenza can vary greatly, especially in the elderly. Generally, influenza-like illness can be defined as a person with a temperature of 100°F or greater orally, plus cough or sore throat. It is important to remember that not everyone with influenza will have fever, and other symptoms that are common for influenza, such as myalgia should be taken into consideration.

Documenting and Organizing Outbreak Information

To track the progression and resolution of the outbreak, it is helpful to make a line list of confirmed and suspected cases with date of onset of illness, room location, treatment status, etc. See example of a line list on Appendix A. Documentation of staff illness is also important. Mapping room location of cases may also be useful. Please gather information about the proportion of staff and patients who are vaccinated against influenza, as this is needed for the outbreak report.

Outbreak Control Quick Checklist

- Report outbreak to (253) 798-6410 for specific guidance.
- Place confirmed or suspected flu patients on droplet precautions and isolate.
- Patients who must leave their room should wear a face mask.
- Cohort patients with suspected or laboratory-confirmed influenza.
- Place extra emphasis on hand hygiene for both staff and patients.
- Limit or halt group activities, which may include closing the dining room.
- Restrict movement of staff between wards.
- Limit new admissions to designated cohort ward.
- Limit visitors with respiratory illness; notify visitors of outbreak with signage and encourage visitors to practice hand and respiratory hygiene. (See samples, Appendix C)
- Restrict ill staff from patient care.
- If influenza A is confirmed by laboratory, *give prophylactic antivirals to all patients and unvaccinated staff*. The initial course of medication should be for at least two weeks, or for the duration of the outbreak.
- Notify providers and request prophylaxis. A sample letter is attached. (See Appendix B)
- Continue to encourage influenza vaccine to unimmunized staff and patients.

Administration of Antiviral Medication

When outbreaks of influenza A are confirmed in a facility, prophylaxis with oseltamivir (Tamiflu) should be started as soon as possible to reduce the spread of virus. Zanamivir (Relenza) is also effective, but is administered in an inhaled powder which may be difficult for some patients. Amantadine and rimantadine are not recommended due to high levels of resistance. Prophylaxis should be administered to all residents, regardless of whether they received influenza vaccine. Unvaccinated staff should also receive prophylaxis.

Recommended Dosage and Duration of Influenza Antiviral Medications for Treatment and Prophylaxis

Antiviral Agent	Use	Adult Dosage
Oseltamivir (Tamiflu®)	Treatment- 5 day course	75mg twice daily
	Chemo-prophylaxis- For institutional outbreak, medications should be taken for a minimum of 14 days and can continue up to one week after last case is identified	75mg once daily
Zanamivir (Relenza®)	Treatment- 5 day course	10 mg (two 5 mg inhalations) twice daily
	Chemoprophylaxis- 7 day course.	10 mg (two 5 mg inhalations) once daily
Peramivir (Rapivab®)	Treatment for hospitalized, severely ill persons only	One 600mg dose IV

Dosages should be altered for patients with impaired renal function. For patients with creatinine clearance 31–60mL/min, give 30mg oseltamivir twice daily for treatment, and 30mg once daily for prophylaxis. For patients with creatinine clearance 10–30mL/min, give 30mg oseltamivir once daily for treatment, and 30mg every other day for prophylaxis.

Having pre-approved orders from physicians or plans to obtain orders for antiviral medications on short notice can substantially expedite administration of antiviral medications. If surveillance indicates that new cases continue to occur, chemoprophylaxis should be continued until approximately one week after the end of the outbreak. Side effects can diminish or disappear after the first week, despite continued drug ingestion.

To limit the potential transmission of drug-resistant virus during outbreaks in institutions, measures should be taken to reduce contact as much as possible between persons taking antiviral drugs for treatment and other persons, including those taking chemoprophylaxis.

Antiviral Assistance from Washington State Department of Health

Large amounts of antiviral drugs may be difficult to obtain in community settings during periods of high influenza activity. Facilities can request antiviral medications from Washington State Department of Health Office of Emergency Preparedness and Response. This is essentially a loan, to be repaid by resupplying medications to the state program within three months. The local Health Department must request the medications on behalf of facilities. Please call (253) 798-6410 for further information.

Isolation/Cohorting/Precautions

- Symptomatic patients should be confined to their rooms or cohorted on the affected unit until they are afebrile and asymptomatic for 24 hours if taking antiviral (not antibiotic) medicines or until seven days after the onset of their illness if they are not taking antiviral medicines.
- Droplet precautions should be implemented for residents with suspected or confirmed influenza for seven days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms, whichever is longer, while a resident is in a health care facility.

Excluding Symptomatic Employees

Flu outbreaks are frequently linked to staff that have influenza or subclinical infection. Facility employees, professional staff, contract labor and volunteers who are symptomatic with influenza-like illness should be excluded from the facility because such persons may contribute to transmission of influenza during an outbreak. Exclusion should continue until five days after onset of their illness unless they are taking antiviral medications, in which case they may return when afebrile and asymptomatic.

Notifying Attending Physicians

To ensure the rapid administration of antiviral medications to residents, all attending physicians should be provided with a fax or telephone order regarding the use of prophylaxis that comes from both the Medical Director and Director of Nursing (preferably signed by both).

Pre-flu Season To-Do List

- Be informed of what is happening with influenza in the community by subscribing to the Pierce County Influenza Update. Go to www.tpchd.org/email. Complete subscription page and select “Health Advisories and Disease Alerts.”
- Check with your commercial laboratory and/or the local hospital laboratory about the availability and turn-around time for rapid flu tests.
- Procure approximately five test kits for rapid influenza testing from your commercial laboratory or the hospital laboratory to have on hand in the event of an outbreak.
- Post signs (year-round) asking visitors not to enter the facility if they are ill (see samples, Appendix D). Request that visitors practice hand and respiratory hygiene.
- Develop respiratory illness surveillance system, and discuss with nursing and care staff.
- Develop a plan for notifying the residents’ physicians of influenza outbreak.
- Develop a plan for coordinating prophylaxis for residents and unvaccinated staff.

Outbreak Prevention: Influenza Vaccination

- Long-term care staff should get their influenza vaccinations early in the fall (soon after the vaccine is available). Staff who are not vaccinated against influenza are at increased risk for flu, and may spread influenza to residents and other HCP. People infected with influenza can spread influenza one day *before* they feel sick through five to seven days after becoming sick.
- Encourage all LTC staff and residents to get a flu shot. Many companies provide on-site flu vaccine services, and many will bill the resident and staff insurance (see list of immunization providers, Appendix C).
- Facilities that require influenza immunization have higher rates of employee vaccination.
- A helpful toolkit for employers can be found at www.cdc.gov/flu/toolkit/long-term-care/index.htm

High Dose Flu Vaccine for Seniors

Fluzone High Dose has been available for people age 65 yrs and older for the past several seasons. In large double-blind population studies, the high dose vaccine was found to 24.2% more effective than the standard preparation (95% CI, 9.7 to 36.5)². For the same study population, an article currently in press indicates that high dose vaccine is 17.7% more effective than standard dose in overall serious flu-related events (death, hospitalization or prolonged hospitalization)³. In addition, the high dose vaccine was found to be 39.8% more effective in preventing serious pneumonia. The Centers for Disease Control and Prevention (CDC) has not expressed a preference for this vaccine over any other influenza preparation for seniors.

Resources for Long-Term Care Facilities

- www.cdc.gov/flu/freeresources/index.htm
- www.cdc.gov/flu/healthcareworkers.htm
- www.tpchd.org
- www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm

References

1. Centers for Disease Control and Prevention (CDC), National Center for Immunization and Respiratory Diseases (NCIRD). Interim guidance for influenza outbreak management in long-term care facilities. [No date]. Accessed Jan. 18, 2013. www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm.
2. Arias, Kathleen Meehan. Outbreak investigation, prevention, and control in health care settings: Critical issues in patient safety. 2nd ed. Sudbury, MA: Jones & Bartlett Publishers; 2010.
3. Washington State Department of Health. Recommendations for prevention and control of influenza outbreaks in long-term care facilities during the 2011–2012 influenza season. Dec. 23, 2011. Accessed Jan. 18, 2013. www.doh.wa.gov/Portals/1/Documents/5100/fluoutbrk-LTCF.pdf.

Influenza Outbreak Line List



Date	Facility Name	Contact Name	Contact Phone Number	Outbreak Onset Date

Patient Name	Date of Birth	Room No.	Hall or Floor	Vaccinated	Onset Date/Time	Fever	Cough	Meets Case Definition	Lab Confirmed	Antiviral Tx	Outcome
				<input type="checkbox"/> Yes <input type="checkbox"/> No	Date: Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Rx: Date:	
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Appendix B

Facility Letterhead

Date

To: Dr. _____

From: Insert Name and Phone #, Responsible Person

Action Requested: Please provide influenza prophylaxis to your patient residing in our facility.

Your patient, _____ DOB _____

resides at (name of facility or community). An influenza outbreak has been confirmed at our facility. Give brief detail of outbreak (example- *Three people from XX have been hospitalized for pneumonia. Four of the people who are ill have tested positive for influenza*). The Tacoma-Pierce County Health Department is helping us to control this outbreak and gave us the following information.

During outbreaks of influenza at group living facilities, The Centers for Disease Control recommends that all residents take preventive antiviral medication, even if they have had a seasonal flu vaccination. Oseltamivir (Tamiflu) is the most frequently used medication, and is prescribed as follows:

- **Chemoprophylaxis of Influenza-** Oseltamivir 75mg once daily. For control of outbreaks in long-term care facilities and hospitals, CDC recommends antiviral chemoprophylaxis for a minimum of 2 weeks and up to 1 week after the most recent known case was identified
- **Treatment of Influenza-**Oseltamivir 75 mg twice daily for 5 days. Recommended duration for antiviral treatment is 5 days. Treatment is most effective if started within 48 hours of onset of symptoms. Longer treatment courses can be considered for patients who remain severely ill after 5 days of treatment.

A reduction in the dose of oseltamivir is recommended for persons with creatinine clearance <30 mL/min. For patients with creatinine clearance of 10–30 mL per minute, a reduction of the treatment dosage of oseltamivir to 75 mg once daily and in the chemoprophylaxis dosage to 75 mg every other day is recommended.

Reference: Antiviral Agents for the Treatment and Chemoprophylaxis of Influenza

Recommendations of the Advisory Committee on Immunization Practices (ACIP), *MMWR Recommendations and Reports*. January 21, 2011 / 60(RR01);1-24. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6001a1.htm>

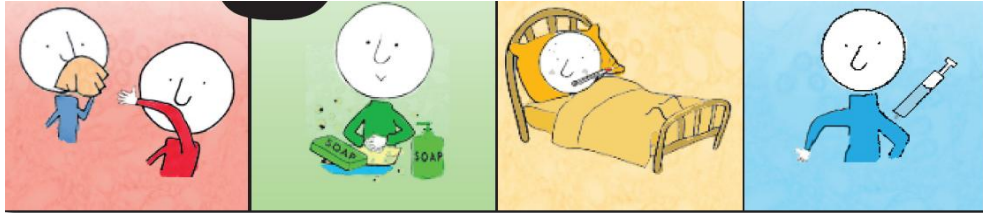
Appendix C

List of Immunization Providers

Business Name	Area(s) Served	Contact Information
Costco Pharmacy	<i>You can purchase Flu Shot Cards to give to your employees. Unused cards will be refunded at end of March.</i>	(425) 427-7294 Email: bulkcards@costco.com
DuPont Pharmacy, Inc	Pierce and Thurston Counties	(253) 964-3400 www.dupontpharmacy.com
Fred Meyer Pharmacies	<i>You can purchase Flu Shot Cards to give to your employees.</i>	(877) 904-2415 www.fredmeyer.com/pharmacy
GetAFluShot.com	Washington and Oregon	(503) 258-9800 www.getaflushot.com
HealthForce Occ-Med	Seattle Tacoma Metropolitan area	(425) 468-6510 www.healthforcepartners.com
Kirk's Pharmacy	Eatonville, Sunrise Medical Campus Heartland Medical Campus	(360) 832-3121 www.kirksparmacy.com
Lincoln Pharmacy LLC	King, Pierce, Thurston Counties	(253) 722-6099 www.lincolnrx.com
Maxim Health Systems	All 50 States	(310) 329-5899 www.maximhealthcare.com
Mega Pharmacy	Tacoma	(253) 507-7492 www.megapharmacy.org
Rite Aide	Pierce County, Washington	(253) 474-8500 www.tinyurl.com/riteaidflu
Rxpress Pharmacy	Bonney Lake	(253) 862-5000 www.rxpress-pharmacy.com
Seattle Visiting Nurse Association	Washington State	(425) 967-3080 www.seattlevna.com
Union Ave Compounding Pharmacy	Within 10 mile radius	(253) 752-1705 www.unionavenuerx.com
Walgreens Workplace Health And Pharmacy	Upon Request	www.walgreens.com/flu
Walmart (in partnership with OccuVax)	All 50 states	1-800-558-5754 www.tinyurl.com/WalmartFlu www.occuvax.com

NOTICE

Family & Friends Shouldn't Visit If Experiencing Respiratory Or Flu-like Symptoms



**Cover
your
cough!**

**Wash
your
hands.**

**Stay home
when sick.**

**Get
vaccinated.**

www.health.state.mn.us/divs/idepc/diseases/flu/index.html

NOTICE

Flu season is here and to protect our residents:



What can you do?

- 1** Practice Respiratory Etiquette
- 2** Clean Your Hands Frequently
- 3** Family and Friends Should Not Visit if Experiencing Respiratory or Flu-Like Symptoms

www.amc.edu

NOTICE TO VISITORS

- We are having an outbreak of respiratory illness.
- If the person you are visiting is ill, check in at the nurse's station.
- Postpone your visit if you are at risk for flu complications.