



Infection Control Guidance for the Prevention, Recognition and Management of Influenza in Long Term Care Facilities 2016-2017

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Background Information

This guidance summarizes recommendations issued by the Centers for Disease Control and Prevention (CDC), “Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities,” available at <http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>. This guidance applies to all staff and residents of long-term care facilities (LTCF).

The Philadelphia Department of Public Health (PDPH), Division of Disease conducts surveillance on all hospitalized and fatal cases of lab-confirmed influenza. Additionally, PDPH collects reports on and investigates all pediatric deaths and institutional (including LTCF) outbreaks due to influenza. Surveillance data, health advisories, and guidance documents for Philadelphia are posted at <https://hip.phila.gov/>.

Influenza Symptoms and Transmission

Symptoms of influenza include fever $\geq 100^{\circ}\text{F}$, cough, sore throat, runny or stuffy nose, body aches, headaches, chills, fatigue, nausea, diarrhea and vomiting. The incubation period averages 2 days. Severe complications of influenza include pneumonia, bronchitis, sinus or ear infections, or death. Those over the age of 65 years or with underlying medical conditions are at increased risk for serious complications of influenza.

Virus shedding begins 24-hours prior to symptom onset and can persist for an average of 5 to 7 days after symptom onset. Children and immunocompromised persons may shed the virus for a longer period.

Influenza viruses are transmitted person to person through close contact. Influenza viruses can be transmitted through (1) droplets expelled during coughing or sneezing (approximately 6 feet), (2) contact with an infectious patient or contact with a contaminated object (fomite) followed by self-inoculation and (3) small particle aerosols in the vicinity of an infected person. All respiratory secretions and bodily fluids, including diarrheal stools, from an infected patient are considered potentially infectious.

Infection Control Recommendations

- **Vaccination.** Annual vaccination is the most important measure to prevent seasonal influenza infection. LTCF staff and residents should receive seasonal influenza vaccine every year. National recommendations for seasonal flu vaccination are available at <http://www.cdc.gov/flu/professionals/acip/index.htm>.
 - Residents of LTCF should only be immunized with inactivated influenza vaccine (flu shot), generally in October or November of each year. Vaccine should be offered to unimmunized persons throughout the influenza season, which extends through May.
 - Staff may be vaccinated with either inactivated influenza vaccine (flu shot) or live attenuated influenza vaccine (LAIV, nasal spray). LAIV is **only** recommended for staff younger than 50 years old who are **not** pregnant, and who are otherwise healthy with no underlying medical conditions. Staff members who receive LAIV should refrain from contact with severely immunosuppressed patients (i.e., residents requiring a protected environment) for 7 days after vaccination.
 - LTCFs should strongly encourage staff be immunized and consider requiring signed declination forms from employees who refuse vaccination. Additional strategies for developing and instituting an employee vaccination program are available from CDC’s Influenza Toolkit for Long-Term Care Employers: <http://www.cdc.gov/flu/toolkit/long-term-care/strategies.htm>.
- **Surveillance.** Conduct regular surveillance for respiratory illness to identify outbreaks and institute infection control recommendations promptly. Report outbreaks to PDPH by calling (215) 685-6741.

- LTCFs should have an identified staff person to monitor respiratory illness in both residents and staff throughout the year. A suspected influenza outbreak is defined as two or more residents ill with influenza symptoms (fever, cough, chills, headache, myalgia, sore throat, or runny nose) occurring within 72 hours, who are in close proximity to each other (e.g., in the same area of the facility), or when any resident tests positive for influenza. **One case of laboratory confirmed influenza in a LTCF is considered an outbreak.**
- Staff should suspect that a resident has influenza if they have a respiratory illness, even if the illness is mild or the resident has been vaccinated. This is especially true if influenza is circulating in the community or there is a case of influenza in the facility. Elderly persons may have an atypical clinical presentation, without fever, when they are infected with influenza. Information about flu circulating in the Philadelphia community is available at <https://hip.phila.gov>.
- If a suspected or confirmed influenza outbreak is identified, surveillance for suspected influenza illness and collection of specimens from patients with suspected influenza should continue for at least 2 weeks from the onset of illness in the last case to assess the effectiveness of the control measures and to monitor for the potential emergence of antiviral resistance.
- ***Influenza Testing.*** Develop a plan for collecting and testing respiratory specimens for influenza.
 - Nasopharyngeal secretions obtained by swab, aspirate or wash are appropriate clinical specimens for influenza testing. Serologic testing is not recommended. Guidance on laboratory testing is available at <http://www.cdc.gov/flu/professionals/diagnosis/index.htm>
 - Rapid diagnostic tests provide results in 10-15 minutes and may be used for influenza testing. Specimens may also be tested by viral culture or PCR to confirm rapid influenza test results or identify the specific influenza subtype and strains, and antiviral susceptibility.
 - Contact PDPH at (215) 685-6741 for assistance with confirmation testing and virus subtyping/identification.
- ***Education.*** Educate staff about the importance of vaccination, the signs and symptoms of influenza, control measures and the indications for influenza testing. Consider posting messages throughout the facility, especially during influenza season. Contact PDPH at (215) 685-6741 or visit <https://hip.phila.gov> for educational resources.
- ***Antiviral Medications.*** Antiviral medications may be used for influenza treatment and chemoprophylaxis.
 - CDC recommends oseltamivir (Tamiflu®) and zanamivir (Relenza®) for influenza A and B treatment and prophylaxis. Treatment guidance is available at: <http://www.cdc.gov/flu/professionals/antivirals/index.htm>
 - Antiviral treatment can reduce the severity and duration of influenza illness. Treatment should be initiated within 2 days of symptom onset; however it is still beneficial when given later in the course of progressive illness. LTCF residents suspected to have influenza should be treated with antivirals as soon as possible; do not wait for laboratory confirmation.
 - Antiviral chemoprophylaxis (prevention) should be given to residents, regardless of vaccination status, and offered to staff during an influenza outbreak. Chemoprophylaxis should continue for at least 2 weeks, until 7 days after the onset of illness in the last known case. Individuals should be actively monitored for adverse effects and for the development of resistant influenza illness.
 - Chemoprophylaxis should be offered to staff that are unvaccinated or have underlying medical conditions. Staff members who are initially vaccinated at the time of an outbreak, and have no underlying conditions, require chemoprophylaxis only for the 2-week period following vaccination.
- ***Respiratory Hygiene and Hand Washing***
 - Encourage hand washing and respiratory etiquette by posting signage and providing tissue and hand sanitizer/hand washing stations.
 - Provide masks and tissues to residents who are coughing or sneezing.

- Encourage residents who are coughing to sit separated (i.e., 3 to 6 feet) from others and not use common areas where feasible.
- Ensure that the facility maintains an adequate supply of hand and respiratory hygiene supplies throughout the flu season.
- ***Standard Precautions.*** All health care workers in a LTCF should adhere to standard precautions during the care of residents in order to prevent disease transmission.
 - Hand washing is absolutely essential and must be performed before and after resident care. Hand sanitizer may be used if hands are not visibly soiled.
 - Use gloves for any contact with potentially infectious material, followed by hand washing immediately after glove removal. Change gloves between resident encounters.
 - Use gowns and eye protection for activity that may generate splashes of respiratory secretions or other infectious material. Change gowns and wash hands between resident encounters.
- ***Droplet Precautions.*** Implement droplet precautions for residents with suspected or confirmed influenza. Precautions should be followed for 7 days after the resident's illness onset or 24 hours after fever and respiratory symptom resolution, whichever is longer.
 - Isolate resident in a private room. If a private room is unavailable, cohort ill residents together.
 - Wear a surgical or procedure mask when entering an ill resident's room. Remove the mask and perform hand hygiene when exiting the resident's room.
 - Mask ill residents before transporting them outside of their room.
- ***Other Considerations***
 - Cohort ill residents and restrict resident and staff movement between units.
 - Do not admit new residents to a unit with influenza. If multiple units are affected, close the facility to new admissions until 5 days after the onset of the last case.
 - When there is significant flu activity in the community, post signage to notify visitors that individuals with respiratory illness should not visit until 5 days after symptom onset for adults and 10 days after onset in children. Information about flu activity in Philadelphia is available at <https://hip.phila.gov/>.
 - Monitor health care workers with flu-like illness, confirm the cause of illness using a rapid flu kit and exclude any health care worker with influenza from patient care for 5 days after illness onset.
- ***Environmental Infection Control.*** Routine cleaning and disinfection procedures can be used during influenza season in all healthcare settings.

Additional Information for Specific Healthcare Settings

- Flu Information for Philadelphia Healthcare Providers (PDPH): <https://hip.phila.gov/>
- Flu Information for Health Care Providers (PADOH): <http://www.health.pa.gov/My%20Health/Diseases%20and%20Conditions/I-L/Pages/Influenza-Recommendations-for-Health-Care-FacilitiesEMS.aspx#.WAeR9kbD8y->
- Flu Clinical and Public Health Guidance (CDC) *includes guidance on antiviral chemoprophylaxis and standard and droplet precautions:* <http://www.cdc.gov/flu>
- For questions regarding these guidelines, or other influenza-related concerns, please contact the Division of Disease Control, Philadelphia Department of Public Health, at (215) 685-6741 during normal business hours, and (215) 686-4514 after hours.

Prevention and Control of Influenza in Long Term Care Facilities

- Vaccinate staff and residents.
- Educate staff about illness recognition and flu prevention, including self-exclusion from work when ill.
- Implement an influenza surveillance system for residents and staff throughout the influenza season.
- Post signage discouraging ill visitors.

Two or more residents ill with influenza symptoms (fever, cough, chills, headache, myalgia, sore throat, or runny nose) occurring within 72 hours, who are in close proximity to each other (e.g., in the same area of the facility), or when any resident tests positive for influenza.

Notify PDPH at (215) 685-6741 and initiate Outbreak Control Measures within 24 hours of recognizing any cluster/outbreak of respiratory illness

Outbreak Confirmation

- Immediately collect specimens for rapid and confirmatory testing from ill residents (3-5 is ideal).
- Perform rapid influenza testing. Interpret negative flu tests with caution, as false negatives are common.
- PDPH can facilitate confirmatory testing at the PDPH Public Health Laboratory. Contact PDPH at 215-685-6741 to arrange for specimen pick-up and testing.

Transmission Prevention

- Isolate ill residents in single rooms. When single rooms are not available, cohort ill residents.
- Ill residents should be confined to their rooms for at least 7 days after the onset of symptoms.
- Assign staff to either ill or well residents, staff should not work with both ill and well residents.
- Institute droplet precautions and reinforce standard precautions.
- Maintain a list of ill residents and staff, including symptoms and onset dates. Update the list daily.
- Exclude ill staff from resident care for at least 7 days from symptom onset.
- Limit group activities and restrict new admissions to the facility if influenza spreads to multiple units.

Treatment and Prophylaxis

- Vaccinate any unvaccinated resident or staff.
- Administer antiviral treatment medication to ill residents.
- Provide antiviral chemoprophylaxis to all well residents and monitor them from adverse events and illness development.
- Offer antiviral chemoprophylaxis to well employees.

Notifications

- Post signage to inform visitors of outbreak.
- Exclude ill visitors. Consider restricting children and visitation to affected units.
- Inform hospitals or other facilities receiving patients about the outbreak.