

# Summary: Influenza Outbreak Management in Long-Term Care Facilities

This is a summary of [guidance](#) provided by CDC intended to be a quick(ish) reference for use during investigations of respiratory outbreaks in long-term care facilities in Oregon. It highlights preparations for flu season, outlines control measures, and provides Oregon-specific links.

## 1. Before an Outbreak Occurs – Vaccinate and Prepare!

### a. Vaccinate Residents

- i. If possible, all residents should receive inactivated influenza vaccine (IIV) before influenza season

### b. Vaccinate Staff

- i. CDC and the Advisory Committee on Immunization Practices (ACIP), recommend that all U.S. health care personnel get vaccinated annually against influenza
- ii. Health care personnel who get vaccinated help to reduce the following:
  1. Transmission of influenza
  2. Staff illness and absenteeism
  3. Influenza-related illness and death, especially among people at increased risk for severe influenza illness, such as the elderly

### c. Prepare for outbreaks

- i. Have a plan for treating and prophylaxing patients
  1. **Preapproved orders** from physicians or plans to obtain orders for antiviral medications on short notice can substantially expedite administration of antiviral medications.
- ii. Monitor new and current residents and visitors for flu-like symptoms
  1. Remember: **elderly patients can have atypical flu presentations**, like vomiting, diarrhea, and no fever.
- iii. Have plans in place for testing. If any resident has flu-like symptoms, test.
- iv. Counties: have ILI Go Kits on hand to collect specimens to send to OSPHL, should an outbreak occur. [Order more ILI Go Kits online](#)
- v. Read more about flu prevention in healthcare settings [here](#).

## 2. Is this an outbreak?!?

### a. Confirmed or suspected influenza outbreak = 2 or more ill residents

- i. Report 2 or more influenza-like illnesses (ILI) to the [local health department](#)

**ILI = fever + (cough or sore throat)**

- ii. When at least 2 patients are ill within 72 hours of each other AND at least one resident has laboratory-confirmed influenza you may have an outbreak that requires prophylaxis for well residents! (See Section 4.b.)
- iii. **Confirmed outbreak** = 2 or more lab-confirmed cases infected with the same pathogen

**Presumptive outbreak** = 1 laboratory-confirmed case along with other cases of ILI

**Suspect outbreak** = ILI reported in  $\geq 2$  cases, no lab-confirmed cases

## 3. So you have an outbreak – Test, Monitor, Control

### a. Test ill residents

- i. In an outbreak setting, test for influenza in the following:
  1. Ill persons anywhere in the facility
  2. Persons who develop acute respiratory illness symptoms more than 72 hours after beginning antiviral chemoprophylaxis
- ii. PCR tests are best—accurate and fast, a winning combination!
  1. Many labs that perform PCR testing can run a PCR respiratory panel that tests for multiple respiratory viruses at once (e.g., the BioFire PCR used by Providence, Legacy, OHSU)
  2. So test for additional respiratory pathogens using these PCR panels, especially if not flu season
- iii. Rapid tests are less reliable
  1. Rapid tests are used by some facilities, but there are often false-positives early in the flu season and false-negatives during peak flu season. (Read more [here](#))
  2. If we get a positive rapid we still consider that case lab-confirmed
- iv. **Testing at OSPHL:** if an outbreak number has been assigned, the LHD can send ~5 outbreak specimens to OSPHL for PCR testing for flu and the entire respiratory viral panel. [Order more ILI Go Kits online](#)

**How to collect specimens for testing at OSPHL** (for detailed instructions search for “influenza” in the OSPHL search box [online](#))

  1. Ideally use a flocked NP swab made of synthetic fiber with a plastic shaft (wooden shaft swabs are NOT acceptable).
  2. Try to collect specimen from nasopharynx  $\leq 3$  days of illness onset.
  3. Insert swabs into viral transport media.
  4. Fill out OSPHL Virology/Immunology Request (form 42): **Check the 'MOL IA/IB QUAL' box** under the Virus Isolation heading and write in the **outbreak number** assigned to the outbreak in the 'Outbreak number' box.

## b. Monitor

- i. Implement daily surveillance (here's a [spreadsheet](#)! Or [pdf!](#)) for respiratory illness among:
  1. ill residents
  2. health care personnel
  3. visitors to the facility
- ii. Conduct daily active surveillance until at least 1 week after the last confirmed influenza case occurred.

## c. Control

- i. Implement Standard and Droplet Precautions for all residents with suspected or confirmed influenza
  1. Continue for 7 days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms, whichever is longer
- ii. Examples of **Standard Precautions**:
  1. Wear gloves
  2. Wear gowns if clothes may be soiled with respiratory secretions
  3. Change gloves and gowns after each resident encounter
  4. Perform hand hygiene frequently even if gloves are worn
    - a. Including: before and after touching the resident, after touching the resident's environment, or after touching the resident's respiratory secretions.
    - b. **Gloves do not replace the need for performing hand hygiene.**
- iii. Examples of **Droplet Precautions**:
  1. Placing ill residents in a private room
    - a. Cohort ill residents if private rooms are unavailable
  2. Wear a facemask upon entering the resident's room
  3. Have the resident wear a facemask if resident movement or transport is necessary
  4. Communicate information about patients with suspected, probable, or confirmed influenza to appropriate personnel before transferring them to other departments.

## 4. Treatment and Prophylaxis

### a. Treat

- i. **All long-term care facility residents who have confirmed or suspected influenza should receive antiviral treatment immediately.**
- ii. Treatment should not wait for laboratory confirmation of flu
- iii. Antiviral treatment works best when started within the first 2 days of symptoms
- iv. **Dosing**: Tamiflu antiviral treatment is typically **75 mg twice daily for 5 days**.
  1. Longer treatment courses for patients who remain severely ill after 5 days of treatment can be considered.
  2. Always consult the resident's physician for dosing guidance. Patients with renal impairment may require lower doses.

- b. **Prophy – When an outbreak is occurring**
  - i. **All eligible well residents in the entire long-term care facility** (not just currently affected wards) should receive antiviral chemoprophylaxis as soon as an influenza outbreak is determined.
    - 1. **When at least 2 patients are ill within 72 hours of each other AND at least one resident has laboratory-confirmed influenza**, the facility should promptly initiate antiviral chemoprophylaxis to all non-ill residents, regardless of vaccination status.
  - ii. **Dosing:** In the LTCF setting Tamiflu antiviral chemoprophylaxis is typically **75 mg once daily for 2 weeks**, continuing for 7 days after the last known case was identified.
    - 1. Always consult the resident’s physician for dosing guidance.
  - iii. Consider offering prophylaxis to unvaccinated staff in the facility.
  - iv. Notify the [health department](#) if a resident develops influenza while on or after receiving antiviral chemoprophylaxis – this patient may be infected with an antiviral-resistant strain of flu virus.
- c. **When can I declare an outbreak over? 7 days after the last case onset**

## 5. Summary of control measures:

- a. **Hand Hygiene:**
  - i. Post [Cover Your Cough](#) posters
  - ii. Provide information about the benefits of hand hygiene
  - iii. Access to sinks, soap, and warm water and alcohol-based hand sanitizer
- b. **Residents:**
  - i. Cohort residents – have ill residents stay in their own rooms and have meals served in-room
  - ii. Limit large group activities in the facility
  - iii. Avoid new admissions or transfers
- c. **Staff:**
  - i. Cohort personnel – restrict personnel movement from areas of the facility having illness to areas not affected by the outbreak
  - ii. Exclude ill personnel with influenza-like symptoms until at least 24 hours after they no longer have a fever
- d. **Visitors:**
  - i. Limit visitation and exclude ill persons from visiting the facility via posted notices
  - ii. Consider restricting visitation by children during community outbreaks of influenza
- e. **Vaccinate:** Administer the current season’s influenza vaccine to unvaccinated residents and health care personnel as per current vaccination recommendations