



# Influenza and Other Respiratory Illness Outbreak Quicksheet



## Respiratory Illness Outbreaks of Concern

### All respiratory illnesses:

- Outbreaks in institutions or congregate settings (e.g., schools, day camps) associated with hospitalizations or fatalities above baseline for that institution or setting.
- Outbreaks in the community assessed by the local health jurisdiction as having public health importance.
- If the source case of the outbreak has recent travel to a country associated with MERS or novel influenza (e.g., H7N9) do NOT use this document. Please use the appropriate guidance for [MERS](#) or [novel influenza](#).

### Influenza only:

- Outbreaks in institutions (e.g., long-term care facilities, prisons, sleepover camps) with at least **one** case of laboratory-confirmed influenza in the setting of a cluster ( $\geq 2$  cases) of influenza-like illness (ILI)\* within a 72-hour period.

*\*ILI is defined as fever ( $\geq 100^{\circ}\text{F}$  or  $37.8^{\circ}\text{C}$ ) plus cough and/or sore throat, in the absence of a known cause other than influenza. Persons with ILI often have fever or feverishness with cough, chills, headache, myalgia, sore throat, or runny nose. Some persons, such as the elderly, children with neuromuscular disorders, and young infants may have atypical clinical presentations.*

## Laboratory Confirmation of Influenza and Other Respiratory Viruses

### All respiratory illnesses:

- Include any positive test performed by any clinical, commercial or local public health laboratory, including by positive rapid antigen test, direct fluorescence assay, culture or real-time reverse transcription polymerase chain reaction (rRT-PCR).

### Influenza only:

- In order of priority, the following influenza tests are recommended, if readily available: rRT-PCR, immunofluorescence, or rapid influenza antigen tests.
- Rapid influenza antigen tests may vary in terms of sensitivity and specificity (ranging ~50–70%) when compared with rRT-PCR and may produce false positives, especially when influenza prevalence is low, and false negatives when influenza prevalence is high. It is recommended that influenza rapid antigen test results be confirmed by rRT-PCR testing at a local public health laboratory. Real-time RT-PCR testing will also help identify subtype, which is useful for

surveillance purposes.

- Even if it is not influenza season, influenza testing by rRT-PCR is recommended for congregate living settings when any resident develops ILI symptoms, and especially when two or more residents develop ILI within 72 hours of each other.

## Specimen Collection and Storage

- Specimens should be collected within the first 24–72 hours after symptom onset and no later than 5 days after symptom onset.
- Suitable upper respiratory samples include: nasopharyngeal (NP) swabs, nasal swabs, throat swabs, NP washes, nasal washes, NP aspirates, and nasal aspirates.
- For patients hospitalized with pneumonia, specimens from the lower respiratory tract should also be collected, if possible. Suitable lower respiratory tract samples include: bronchoalveolar lavage, bronchial wash, tracheal aspirate, and lung tissue.
- Swab specimens should be collected using swabs with a synthetic tip (e.g., polyester or Dacron®) and an aluminum or plastic shaft. Swabs with cotton tips and wooden shafts are NOT recommended. Specimens collected with swabs made of calcium alginate are NOT acceptable.
- Place specimen swab in specimen collection vial containing 2–3ml of viral transport media (VTM) or universal transport media (UTM).
- Specimens should be kept refrigerated at 4°C and shipped on cold packs if they can be received by the laboratory within 3 days of the collection date.
- If samples cannot be received by the laboratory within 3 days, they should be frozen at -70°C or below and shipped on dry ice.
- Use the [VRDL General Purpose Specimen Submittal Form](#) for testing suspect respiratory illness outbreaks, in residents or staff, of long term care facilities (LTCF). Complete **ONE form PER SAMPLE** online and then print out each filled-in form to include with specimen(s) shipment to the CDPH Viral and Rickettsial Disease Laboratory (VRDL).

## Respiratory Outbreak Infection Control Measures in Institutional Settings

- Implement droplet precautions for ill residents.
- Place ill residents in a private room. If a private room is not available, place ill residents with one another (cohort).

- Have symptomatic residents stay in their own rooms as much as possible.
- Limit the number of large group activities and consider serving meals in resident rooms during outbreaks that involve multiple units of the facility.
- Avoid new admissions or transfers into wards with symptomatic residents.
- Limit visitation and exclude ill persons from visiting the facility via posted notices.
- Consider restricting visitation by children during community outbreaks of influenza.
- Monitor staff absenteeism due to respiratory symptoms and exclude those with ILI from work until at least 24 hours after they no longer have a fever.
- Restrict staff movement from areas of the facility having illness to areas not affected by the outbreak.
- Complete guidelines for influenza outbreaks in institutional settings can be found at:
  - [CDPH Recommendations for LTCF](#)
  - [CDC Guidance for Outbreak Management](#)

### **Influenza Outbreak Prevention and Control in Institutional Settings**

#### **Influenza outbreak prevention:**

- **Vaccinate:** All residents should receive inactivated influenza vaccine annually before influenza season and all staff should receive influenza vaccine annually.
- **Surveillance:** During influenza season (October–May) OR when there is influenza activity in the community, residents, staff and visitors should be monitored for ILI.
- **Test:** Influenza may be circulating at any time of the year. Real-time RT-PCR testing is recommended when any resident develops signs and symptoms of ILI.
- **Exclude:** Exclude ill staff and visitors from the facility.

#### **Influenza outbreak control:**

**Institutional influenza outbreak definition:** An institution with at least one case of laboratory-confirmed influenza in the setting of a cluster ( $\geq 2$  cases) of ILI within a 72 hour period.

In addition to the infection control measures listed above, for respiratory outbreaks:

- Conduct daily **active surveillance** for ILI among residents, staff and visitors to the facility until at least one week after the last confirmed influenza case occurred.
- Conduct **influenza testing** in residents and staff with ILI who live or work in affected units as well as previously unaffected units in the facility. Residents or staff who develop acute ILI symptoms more than 72 hours after beginning antiviral chemoprophylaxis should also be tested.
- Offer **influenza vaccine** to residents and staff who previously declined it.

### **Treatment and Postexposure Prophylaxis during an Influenza Outbreak in Institutional Settings**

#### **Antiviral treatment:**

- All residents and staff with ILI should receive antiviral treatment immediately; treatment should **NOT** be delayed while waiting for laboratory confirmation.
- Treatment is 75 mg oseltamivir given orally **twice** a day for 5 days. Treatment period can be extended for severely ill patients.
- Treatment works best when started within the first 2 days of symptoms but may still be effective when given more than 48 hours after onset of symptoms.
- Amantadine and rimantadine are **NOT** recommended due to high levels of antiviral resistance.

#### **Antiviral chemoprophylaxis:**

- All non-ill residents should receive antiviral chemoprophylaxis, regardless of influenza vaccination status, for a minimum of 2 weeks and continuing for at least 7–10 days after the last known case is identified.
- Priority should be given to residents in the same unit/floor as an ill resident.
- Consider providing antiviral chemoprophylaxis to unvaccinated staff who provide care to persons at high risk of influenza complications.
- Chemoprophylaxis can be considered for all staff regardless of vaccination status if the outbreak is caused by a strain of influenza virus that is not well matched by the vaccine.
- Chemoprophylaxis is 75 mg oseltamivir given orally **once** a day for a minimum of 2 weeks and up to 1 week after the most recent known case was identified.
- Chemoprophylaxis can be administered to newly vaccinated staff up to 2 weeks following inactivated influenza vaccination.
- Persons receiving chemoprophylaxis should not receive live attenuated influenza vaccine (LAIV) and persons receiving LAIV should not receive chemoprophylaxis or antiviral treatment until 14 days after LAIV administration. Please note that LAIV is not recommended by the Advisory Committee on Immunization Practices (ACIP) for use during the 2017–2018 influenza season.
- Monitoring staff for ILI symptoms and early antiviral treatment is an alternative to chemoprophylaxis.

#### **Additional Questions or Assistance**

Contact CDPH Immunization Branch at 510-620-3737