



Influenza and Other Respiratory Illness Outbreak Quicksheet



Respiratory Illness Outbreaks of Concern

- Outbreaks in high-risk settings, e.g., long-term care facilities (LTCFs) and other congregate settings with vulnerable populations.
- Outbreaks associated with hospitalizations or fatalities.
- Outbreaks assessed as having public health importance such as outbreaks associated with recent swine exposure, recent travel to an area where novel influenza is circulating, or contact with a confirmed case of variant or novel influenza.
- 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](#).
- All outbreaks are reportable to the local health department. Outbreaks in licensed healthcare facilities are also reportable to the applicable [CDPH Licensing & Certification district office](#).

Influenza Testing

- During influenza season, most respiratory outbreaks are likely to be caused by influenza.
- [Molecular assays](#), including rapid molecular assays, reverse transcription polymerase chain reaction (RT-PCR) and other [nucleic acid detection tests](#), have high sensitivity and high specificity and are strongly recommended for influenza testing of hospitalized patients, fatal cases, and to confirm outbreaks.
- [Immunofluorescence](#) assays are antigen detection assays that generally require use of a fluorescent microscope to produce results in ~2-4 hours with moderate sensitivity and high specificity.
- [Rapid influenza diagnostic tests \(RIDTs\)](#) are antigen detection assays that can detect influenza virus antigens in 10-15 minutes with ~50-70% sensitivity and 90-95% specificity.
- Because the sensitivity of RIDTs vary widely, RIDT results should not be relied upon for the diagnosis of hospitalized patients, fatal cases, or to confirm an outbreak. Rather, confirmation of positive or negative RIDTs in these cases should be made using a molecular assay.

Additional influenza testing information for clinicians can be found on the CDC website:

- [Information on influenza testing](#)
- [Overview of influenza testing methods](#)
- [Influenza testing algorithm for outbreaks](#)

Influenza Testing and Specimen Collection

- Specimens should be collected within 24-72 hours of symptom onset and no later than 5 days after symptom onset.
- Suitable upper respiratory samples include nasopharyngeal (NP), nasal, or throat swabs; or NP or nasal washes or aspirates.
- For patients hospitalized with pneumonia, specimens from the lower respiratory tract should also be collected, if possible. Suitable lower respiratory tract samples include bronchioalveolar lavage, bronchial wash, tracheal aspirate, and lung tissue.
- Swab specimens should be collected using swabs with synthetic tips (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 lab <3 days of collection date.
- If samples cannot be received by the laboratory <3 days of the collection date, they should be frozen at -70°C or below and shipped on dry ice.
- Determine if the relevant local health department laboratory has the capacity to perform molecular assays for influenza, many public health laboratories in California have this capability.

Submitting Specimens to CDPH VRDL

- Use the [General Purpose Specimen Submittal Form](#); and
- Complete **ONE form PER SAMPLE** online and then print out each filled-in form to include with specimen shipment to the CDPH Viral and Rickettsial Disease Laboratory (VRDL).

Testing for Other Respiratory Pathogens

- Other viral and bacterial pathogens can cause outbreaks of respiratory illness. If influenza testing by a molecular assay is negative, or the clinical presentation differs from influenza, other causes should be explored. See the [CDC guidance for unexplained respiratory outbreaks](#).
- Viral pathogens to consider testing for include adenovirus, respiratory syncytial virus (RSV), parainfluenza, rhinovirus, enterovirus, human metapneumovirus, and coronavirus.
- Bacterial pathogens to consider testing for include *Bordetella pertussis*, *Streptococcus pneumoniae*, *Mycoplasma pneumoniae*, *Chlamydia pneumoniae*, and *Legionella spp.*

Confirmed or Suspected Influenza Outbreaks in Long-Term Care Facilities

- Outbreak definition: One case of laboratory-confirmed influenza and at least two residents with onset of influenza-like-illness (ILI)* within 72 hours of each other.
- While unusual, influenza outbreaks can occur outside of the normal influenza season; therefore, influenza testing should be added to testing for other respiratory pathogens during non-influenza season periods when any resident has signs and symptoms that could be due to influenza, and especially when two residents or more develop respiratory illness within 72 hours of each other.

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

Infection Control Measures for Influenza Outbreaks in High-Risk Settings

- Administer influenza vaccine to staff and residents who have not been vaccinated in current season.
- Implement droplet precautions (facemask), in addition to standard precautions, for ill residents.
- Place ill residents in a single bedroom. If a single bedroom is not available, cohort ill residents together but maintain distance of 6 feet between beds and treat each bedspace as a separate room (change gloves and perform hand hygiene between contacts with each patient).
- Have ill residents stay in their own rooms as much as possible, including restricting them from common activities, and serving meals in their rooms.
- Initiate antiviral [chemoprophylaxis](#) for asymptomatic residents.

- Limit the number of large group activities and consider serving all residents' (including asymptomatic residents) meals in their rooms.
- Avoid new admissions or transfers into areas with ill 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 for absenteeism due to respiratory symptoms and exclude those with ILI from work for at least five days after illness onset, and until they have been afebrile at least 24 hours without antipyretics and have improvement in respiratory symptoms.
- Restrict movement of staff from areas of the facility with ill residents to areas not affected by the outbreak.
- Cohort staff so that staff are not caring for both ill and well residents. If unable to cohort, ensure workflow is from well resident rooms/areas to ill resident rooms/areas.

Recommendations for Non-Influenza Respiratory Illness Outbreaks in High-Risk settings

- Promote respiratory hygiene/cough etiquette and hand hygiene for all residents and staff.
- Enhance environmental cleaning of high-touch surfaces and common areas.
- In addition to the measures recommended for influenza, implement Contact precautions in addition to Droplet precautions for respiratory viruses other than influenza pending test results. Many respiratory viruses can cause severe illness and outbreaks in high-risk settings, and require contact precautions as part of control measures.
- Antiviral agents recommended for influenza are not effective against other respiratory viruses.

For additional resources on influenza, see:

- [CDPH recommendations for the prevention and control of influenza in California LTCFs](#)
- [CDC recommendations for influenza vaccination](#)
- [IDSA Clinical Practice Guidelines for Diagnosis, Treatment, Chemoprophylaxis and Institutional Outbreak Management of Seasonal Influenza](#)
- [Additional CDC information on antiviral drugs for influenza treatment and prophylaxis](#)

For additional questions or assistance, contact:

- CDPH Healthcare-Associated Infections Program at HAIPProgram@cdph.ca.gov or 510-412-6060 with questions about licensed healthcare facility outbreaks.
- CDPH Immunization Branch at 510-620-3767 for questions about outbreaks in other settings.
- [CDPH Licensing & Certification District Office](#).