

Influenza and Other Non-COVID-19 Respiratory Illness Outbreak Quicksheet



December 2021

For management of COVID-19 outbreaks, please do not use this document, but rather refer to CDPH and Centers for Disease Control (CDC) COVID-19 guidance.

Non-COVID-19 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), consult with public health regarding expedited testing and outbreak control measures. See [MERS](#) or [novel influenza](#) guidance for more information.
- 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

- [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, positive or negative RIDTs in these situations should be confirmed using a molecular assay.
- Wherever possible, when investigating a respiratory outbreak of unknown etiology, persons with respiratory symptoms should be tested for both influenza and SARS-CoV-2 (the virus that causes COVID-19). Wherever possible, use multiplex influenza A and B and SARS-CoV-2 tests. If point-of-care (POC) multiplex testing is done, confirmatory PCR testing should be done to confirm negative results. If influenza and SARS-CoV-2 tests are negative, obtain a full respiratory virus panel.

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

- [Information on influenza testing](#)
- [Overview of influenza testing methods](#)

Influenza Testing and Specimen Collection

- Laboratory testing for influenza (including molecular assays) is widely available in commercial labs, as well as many local public health labs.

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- Specimen should be collected within 24–72 hours of symptom onset and no later than 5 days after symptom onset.
- Suitable upper respiratory samples include nasal, nasopharyngeal (NP) 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.
- For testing in a public health lab:
 - 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 within 3 days of collection date.
 - If samples cannot be received by the laboratory within 3 days of the collection date, they should be frozen at -70°C or below and shipped on dry ice.

Submitting Specimens to CDPH VRDL

- Use [General Purpose Specimen Submittal Form](#);
- 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).

Confirmed Influenza Outbreak Definition for Long-Term Care Facilities (See [CDPH guidance](#))

- 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.

- 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. In the context of a multi-pathogen outbreak that includes influenza, patients with ILI symptoms who have tested positive for another respiratory pathogen in the absence of an influenza negative test result may be considered to meet the ILI case definition; however, influenza testing is recommended in this situation because the results are helpful for infection control and clinical decision-making.

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 with laboratory-confirmed influenza.
- Place ill residents with laboratory-confirmed influenza in a single bedroom. If a single bedroom is not available, cohort residents ill with lab-confirmed influenza, 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 residents with influenza stay in their own rooms, including restricting them from common activities, and serving meals in their rooms.
- Initiate antiviral treatment for confirmed cases of influenza per [CDC guidance](#) and [chemoprophylaxis](#) for asymptomatic residents.

Testing for Other Respiratory Pathogens

- Other viral and bacterial pathogens can cause outbreaks of respiratory illness. If influenza and SARS-CoV-2 testing by a molecular assay are negative, or if the clinical presentation differs from influenza and COVID-19, 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 non-COVID-19 coronaviruses.
- Bacterial pathogens to consider testing for include *Bordetella pertussis*, *Streptococcus pneumoniae*, *Mycoplasma pneumoniae*, *Chlamydia pneumoniae*, and *Legionella spp.*

Recommendations for Non-Influenza, Non-COVID-19 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 or COVID-19, 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.

Additional Resources on Influenza

- [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 HAIProgram@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.](#)