



## RESPIRATORY DISEASE OUTBREAKS (Long-term Health care Settings) (See [COVID-19](#), [Pertussis](#), or [Legionellosis](#) if suspected)

### Notes:

- This document applies to outbreaks of respiratory illness caused by multiple pathogens in Long-term Healthcare Settings.
- For outbreaks in community settings, see [B73—Respiratory Disease Outbreaks, Community Settings](#).
- For influenza information, see [B73—Influenza Cases and Outbreaks in Long-term Healthcare Settings](#).
- Suspected respiratory outbreaks should be initially reported as respiratory outbreaks until laboratory testing confirms the etiology (if pathogen is unknown).

1. **Agents:** Varies. Agents that cause respiratory disease including but are not limited to respiratory syncytial virus (RSV), *Mycoplasma pneumoniae*, adenovirus, rhinovirus, parainfluenza viruses, *Legionella* spp., group A streptococcus, human metapneumovirus, and coronavirus. For more information on [pertussis](#) or [legionellosis](#) see the appropriate chapter.
  - generally have longer incubation times than viral infections.
2. **Identification:**
  - a. **Symptoms:** Varies with agent. General symptoms include fever, upper or lower respiratory congestion, cough, sore throat, shortness of breath, chills, headache, myalgia, malaise, and sometimes gastrointestinal (GI) symptoms.
  - b. **Acute Respiratory Illness (ARI) refers** to an illness characterized by any two of the following: fever, cough, rhinorrhea (runny nose) or nasal congestion, sore throat, or muscle aches.
  - c. **Differential Diagnosis:** Acute respiratory illnesses are often attributable to infectious etiologies. Non-infectious etiologies that can present as ARI include asthma, malignancies (e.g., lymphoma), and rheumatologic conditions. However, infectious etiologies must always be considered and evaluated.
  - d. **Diagnosis:** Clinical syndrome associated with outbreaks, confirmed by viral culture, PCR, rapid antigen test, DFA/IFA test, or other test.
3. **Incubation:** Varies with agent. Ranges from 1 day to >3 weeks Bacterial infections
  4. **Reservoir:** Varies with agent; mostly human.
  5. **Source:** Nasal or pharyngeal secretions.
  6. **Transmission:** Mostly through droplets or contaminated fomites.
  7. **Communicability:** Varies with agent. On average, up to 2 days prior to and through 1 day after resolution of fever; may be longer in children or in patients with compromised immune systems.
  8. **Specific Treatment:** Supportive care (e.g., rest, antipyretics, fluids, etc.). Bacterial infections require antibiotic treatment. Serious infections with RSV may be prevented with the antiviral Synagis® (palivizumab). Synagis (palivizumab) is a prescription medication that can help prevent serious respiratory syncytial virus (RSV) infections in children at high risk.
  9. **Immunity:** Varies by agent.

### REPORTING PROCEDURES

#### 1. Respiratory Outbreak Definitions:

Under Title 17, Section 2500, *California Code of Regulations* all suspected outbreaks are reportable.

- a. **Healthcare-associated institutions – Long-term health care settings** defined here as facilities licensed by the [California Department of Public Health \(CDPH\), Licensing and Certification](#). These include skilled nursing facility (SNF), intermediate



care facility (ICF), intermediate care facility -developmentally disabled (ICF-DD), intermediate care facility-developmentally disabled habilitative (ICF-DDH), intermediate care facility-developmentally disabled nursing (ICF-DDN), congregate living health facility (CLHF) and pediatric day health and respite care facility (PDHRCF).

**In long-term healthcare settings, an outbreak is defined as:**

- Non-influenza respiratory outbreak of **known** etiology definition: At least **one case** of laboratory-confirmed respiratory pathogen, other than influenza, in the setting of a cluster ( $\geq 2$  cases) of ARI within a 72-hour period. **OR**
- Respiratory outbreak definition (if pathogen is unknown): A sudden increase of ARI cases over the normal background rate in the absence of a known etiology.

**2. Report Forms: SEE TABLE 1**

- a. Use the following form for outbreaks at long-term healthcare settings including SNFs, Intermediate Care facilities, and congregate living health facilities:

i. **Healthcare-associated institutions Long-term health care setting**

For initial and final reports of respiratory outbreaks:

[CD OUTBREAK INVESTIGATION — SUB-ACUTE HEALTH CARE FACILITY \(H-1164-SubAcute, Revised 11/2024, fillable\) \(instructions\)](#)

**Line List - Respiratory Outbreak for Residents and Staff** ([PDF](#) [EXCEL](#))

**\*Required**

**3. Epidemiologic Data for Outbreaks:**

- a. Establish a case definition (i.e., fever [measured or reported] and either cough, sore throat, or stuffy nose): include pertinent clinical symptoms and laboratory data (if appropriate).
- b. Confirm the etiology of the outbreak using laboratory data (rapid test, culture, or PCR).

- c. Create line list that could include:
- i. names of cases
  - ii. dates of onset
  - iii. symptoms
  - iv. age
  - v. hospitalization status
  - vi. results of laboratory tests
  - vii. prior immunization history
  - viii. epi links to other cases (room #s, grades in school, etc.)
  - ix. avian or swine exposure, if relevant
- d. Maintain surveillance for new cases until rate of AFRI is down to “normal” or no new cases for 1 week.
- e. Create an epi-curve, by date of onset. Only put those that meet the case definition on the epi-curve. (Optional)

**CONTROL OF CASE, CONTACTS & CARRIERS**

**CASE:** Varies by agent.

**CONTACTS:** No restrictions.

**CARRIERS:** Not applicable.

**GENERAL CONTROL RECOMMENDATIONS FOR OUTBREAKS**

1. Reinforce good hand hygiene among all (including residents/patients, visitors, staff, and residents/students).
2. Emphasize respiratory etiquette (cover cough and sneezes, dispose of tissues properly), including masking when symptomatic.
3. Provide posters and health education about hand hygiene and respiratory etiquette.
4. Reinforce healthcare personnel (HCP) staying home when sick. Symptomatic individuals (i.e., HCP) to stay away from work for at least 24 hours after the resolution of fever. Limit exposure to others, especially those at high risk for complications.
5. Discourage sharing water bottles, utensils, or other items that may contain saliva.
6. Emphasize the importance of early detection of cases and removing them from contact with others.



7. Encourage regular environmental cleaning with [EPA-registered disinfectant appropriate for respiratory pathogens](#).
8. Consider canceling group activities.
9. Provide educational materials to facility—including posters, handouts, etc. For influenza and respiratory virus health education materials see [ACDC's Health Education Materials webpage](#).

**Consider the following additional recommendations for healthcare-associated institutions, especially with high-risk patients:**

(Note: The specific recommendations might vary based on agents identified as the cause of the respiratory disease outbreak.)

1. Close facility or affected areas within a facility to new admissions is at discretion of the Regional Medical Director and outbreak investigation team. The duration of closure or limiting admissions is typically 1 week after the onset of illness for the last case. However, the exact duration of closures or limiting admissions should be assessed on a case-by-case basis.
2. Suspend group activities until 1 week after the last case.
3. If possible, separate staff that cares for sick from staff that cares for well patients.
4. Institute appropriate [transmission-based precautions](#) for symptomatic patients/residents.
5. For further guidance, refer to Los Angeles County Department of Public Health [Influenza and Other Respiratory Virus Diseases Outbreak Toolkit for Skilled Nursing Facilities](#) or Centers for Disease Control and Prevention (CDC) [Viral Respiratory Pathogens Toolkit for Nursing Homes](#). And for RSV guidance, refer to [ACDC's RSV webpage](#).

## DIAGNOSTIC PROCEDURES

Clinical and epidemiologic histories are required to aid in laboratory test selection.

**Nasopharyngeal (NP) or nasal swab, and nasal wash or aspirate.** Public Health Laboratory (PHL) recommends Dacron or Nylon flocked swabs, do NOT use wooden swabs. NP swabs are preferred because the specimens can be tested for influenza and a variety of other

respiratory pathogens using PCR based technology. All other specimens can only be tested for influenza. Samples should be collected within the first 4 days of illness. Collect specimens from **at least 2 separate symptomatic individuals** and up to 5 symptomatic individuals for any community-based outbreak and select those individuals with the most recent onset for specimen collection.

**Container:** Viral Culturette with M4 viral transport medium.

**Laboratory Form:** If specimen(s) is collected by PHN then complete:

**Container:** Viral Culturette with M4 viral transport medium.

**Laboratory Form:** If specimen(s) is collected by PHN then complete [Public Health Laboratory Test Requisition Form](#) or online request if electronically linked to the PHL.

**Examination:** Influenza PCR and/or Respiratory Pathogen PCR Panel. Testing algorithm is determined by the PHL.

**Material:** Nasopharyngeal swab preferred; nasal swab can be used if necessary. See: [MD/ND Policy 117 Nasopharyngeal Specimen Collection](#) and the [Competency Checklist for Nasopharyngeal Specimen Collection](#).

**Storage:** Keep refrigerated and upright. If specimen is collected by PHN, deliver to Public Health Laboratory as soon as possible. Additional specimen and storage information can be found here: [LA County Department of Public Health - Public Health Laboratory](#).

## PREVENTION/EDUCATION

Guidance should be based on the specific agent that caused ARI or community-acquired pneumonia if possible.

Additional information can be found in the appropriate B-73 [influenza](#), [pertussis](#), or [legionellosis](#) chapters.

## ADDITIONAL RESOURCES:

- [LAC COVID-19 and Acute Respiratory Reporting Page](#)
- [B73 COVID-19 Home Page](#)
- [LAC DPH Respiratory Viruses Webpage](#)
- [LAC DPH RespWatch](#)



- [CDC Resources to prepare for Flu, COVID-19, and RSV](#)

**TABLE 1. RESPIRATORY DISEASE OUTBREAK FORMS**

HEALTHCARE-ASSOCIATED INSTITUTIONS	INITIAL REPORT	FINAL REPORT
<p><b><u>Healthcare-associated institutions</u></b>                      Long-term health care settings defined here as facilities licensed by the <a href="#">California Department of Public Health (CDPH), Licensing and Certification</a>. These include skilled nursing facility (SNF), intermediate care facility (ICF), intermediate care facility -developmentally disabled (ICF-DD), intermediate care facility-developmentally disabled habilitative (ICF-DDH), intermediate care facility-developmentally disabled nursing (ICF-DDN), congregate living health facility (CLHF) and pediatric day health and respite care facility (PDHRCF).</p>	<p><a href="#">CD OUTBREAK INVESTIGATION — SUB-ACUTE HEALTH CARE FACILITY (H-1164-SubAcute Revised 11/2024, fillable) (instructions)</a></p>	<p><a href="#">CD OUTBREAK INVESTIGATION — SUB-ACUTE HEALTH CARE FACILITY (H-1164-SubAcute Revised 11/2024, fillable)</a></p> <p><b>Line List - Respiratory Outbreak for Residents and Staff (<a href="#">PDF EXCEL</a>)</b>                      *Required</p>