



**NEW JERSEY DEPARTMENT OF HEALTH
GUIDELINES FOR THE CONTROL OF RESPIRATORY VIRUS OUTBREAKS IN
LONG-TERM CARE AND OTHER INSTITUTIONAL SETTINGS**

Contents

Introduction..... 2

Respiratory Outbreaks..... 2

Reporting..... 3

Case Investigation & Outbreak Investigation Steps 3

- 1. Confirm that an outbreak exists..... 4
- 2. Verify the diagnosis 5
- 3. Develop an outbreak case definition..... 6
- 4. Perform active surveillance 7
- 5. Document & count cases..... 7
- 6. Identify & eliminate possible transmission sources..... 7
- 7. Institute control measures 8
 - A. Maintain Standard Precautions.....8
 - B. Institute Additional Transmission-Based Precautions.....9
 - C. COVID-19 Transmission-Based Precautions..... 11
 - D. Placement & Cohorting of Patients, Staff, & Equipment 12
 - E. Vaccinations 13
 - F. Antiviral Treatment & Chemoprophylaxis..... 13
 - G. Provide In-service Education to All Staff on All Shifts 14
 - H. Encourage Limited Visits from Family, Friends, & Volunteers 14
 - I. Environmental Measures 15
- 8. Evaluate the effectiveness of control measures & modify as needed 15
- 9. Summarize the investigation in a written report 15

Considerations when COVID-19 & Influenza are Co-circulating..... 16

Resources..... 18

References 19

Introduction

The following guidelines have been established to facilitate the investigation of viral respiratory disease outbreaks and the implementation of control measures in long-term care facilities (LTCFs) and other congregate institutional settings where healthcare is routinely delivered. For the purposes of this guidance, LTCF settings include nursing homes, skilled nursing facilities, and assisted living facilities. Throughout this guidance the term "patient" is used and applies to individuals residing and/or being cared for at the aforementioned facilities.

New Jersey Administrative Code (N.J.A.C), Title 8, Chapter 57 mandates that long-term care and other institutional facilities immediately report any known or suspect communicable disease outbreak by telephone to the [local health department \(LHD\)](#) with jurisdiction over the facility.¹ If the New Jersey Department of Health (NJDOH) Communicable Disease Service (CDS) receives a report of an outbreak in lieu of the LHD(s) where the outbreak is occurring, the presiding LHD will be notified by NJDOH.

Respiratory Outbreaks

Each year outbreaks of respiratory illness occur in institutional settings such as nursing homes and other LTCFs. Because of their underlying health status, patients in LTCFs are at high risk for severe illness and/or death when they become acutely ill. Historically, specific emphasis has been placed on influenza, but other respiratory viruses can also be problematic in this setting; some of these include severe acute respiratory syndrome coronavirus (SARS-CoV-2 or COVID-19), adenovirus, respiratory syncytial virus (RSV), human metapneumovirus (HMPV), rhinovirus and human parainfluenza (HPIV).

Monitoring respiratory virus activity levels, ensuring patients and staff are up to date with immunizations, practicing respiratory hygiene, optimizing use of engineering controls, improving indoor air quality, and having plans for rapid testing, treatment and/or prophylaxis are crucial in preventing respiratory outbreaks. As soon as a respiratory outbreak is suspected, the LTCF response should include laboratory testing (i.e., rapid antigen testing, PCR, and/or viral isolation) to evaluate patients and staff and determine the etiology of the outbreak.

These guidelines emphasize the following priorities regarding respiratory outbreak control:

- Early detection of an outbreak
- Stopping transmission through control measures
- Measuring morbidity and mortality
- Identifying the agent responsible for the outbreak
- Using antiviral agents to help control respiratory outbreaks

For further information on controlling viral respiratory pathogens in LTCFs please see the [Center for Disease Control and Prevention \(CDC\) Viral Respiratory Pathogens Toolkit for Nursing Homes](#).

Reporting

While reporting communicable disease outbreaks in healthcare institutions serves many purposes, **the immediate goal is to control further spread of disease.** In a residential setting, it may be difficult to determine whether an outbreak exists. **An outbreak should be reported when it is suspected, and facilities should not wait for an outbreak to be confirmed before reporting.**

The following are examples of confirmed or suspected outbreaks that should be reported by the facility to their LHD. This is not a comprehensive list. If you think an outbreak might be occurring (i.e., suspected), you must notify your LHD, who will collect information and provide guidance.

An outbreak may be occurring if:

1. Several patients who exhibit similar respiratory symptoms are in the same room, on the same wing of a facility, or attended a common activity; or
2. Two or more patients develop respiratory illness within 72 hours of each other; or
3. There is an increase in employee absences with staff reporting similar respiratory symptoms.

Reporting refers not only to the initial outbreak notification, but also to the provision of routine updates on the status of the outbreak. The facility and the LHD shall be in frequent contact regarding case numbers, control measures implemented, outcomes (hospitalization and/or death) and other pertinent information.

Upon receiving the initial report, the LHD shall immediately inform the NJDOH CDS of the situation.

The facility shall:

- Immediately contact the [LHD](#) by phone to report every suspected or confirmed outbreak.
- Pursuant to NJAC 8:57, a health care facility shall report incidents of infectious and communicable diseases to public health authorities. When LHD staff cannot be reached, the facility shall make the report by phone directly to NJDOH who will then contact the LHD. Call numbers are 609-826-5964 during business hours or 609-392-2020 on nights/weekends and holidays.

The LHD shall immediately notify NJDOH CDS of the outbreak at 609-826-5964 during business hours or 609-392-2020 after hours.

Case Investigation & Outbreak Investigation Steps

Upon notification and evaluation, NJDOH will assign an "E" number to the outbreak, which should be used for all outbreak correspondence and any laboratory sample submission to the NJ Public Health and Environmental Laboratories (PHEL).

The LHD, in consultation with the NJDOH epidemiologist, shall lead the investigation by providing the facility with guidance, support and assistance. The LHD should consider making an on-site visit for initial evaluation and ongoing assessment.

Public health authorities and facilities will collaborate to:

1. Confirm that an outbreak exists.
2. Verify the diagnosis using clinical, epidemiological and lab test information, considering seasonal disease occurrence.
3. Develop a case definition based on clinical and laboratory criteria.
4. Perform active surveillance.
5. Document cases in a line list.
6. Identify and eliminate transmission sources when possible.
7. Institute control measures, balancing infection control concerns with disruption of patients' quality of life routines.
8. Evaluate effectiveness of control measures and modify as needed.
9. Summarize the investigation in a written report to communicate findings.

Note: Steps may not occur simultaneously during the course of the investigation.

1. Confirm that an outbreak exists

Gather information to confirm an outbreak is occurring within the facility; this would include initial information on the number of ill and well patients. The outbreak definitions below serve as a guide but are subject to revision based on situation-specific information.

Definition of a Respiratory Virus Outbreak in LTC Settings:

1. ≥ 2 facility-associated, laboratory-confirmed positive cases (e.g., influenza, RSV, adenovirus, other non-COVID-19 respiratory illnesses) identified within 72 hours of each other among patients with an epi linkage*;
OR
2. ≥ 2 facility-associated, laboratory-confirmed COVID-19 cases identified within 7 days of each other among patients with an epi linkage*;
OR
3. A sudden increase over the normal background rate of acute respiratory illness (ARI)** cases, with or without documented fever (temperature $\geq 100.4^{\circ}\text{F}$ or 2 degrees above the established baseline for that patient).

**Epi linkage is defined as having a common exposure within the facility, e.g., patients on the same unit or*

cared for by the same healthcare personnel. Determining epi linkages requires judgment and consulting with public health and may include weighing evidence as to whether a common exposure exists.

***ARI includes any two of the following symptoms: fever, sore throat, cough, rhinorrhea, and nasal congestion in the absence of a known cause (e.g., seasonal allergies, COPD). Note: Elderly or medically fragile persons may manifest atypical signs of respiratory virus infection and may not present with fever.*

If an outbreak is suspected, the facility should not wait for confirmation to report to the LHD (see "Reporting" section above).

2. Verify the diagnosis

- Determine the cause of acute respiratory illness based on the history, physical exam and/or laboratory findings of the patient or staff member. Diagnostic testing can aid clinical judgment and guide outbreak control decisions. Be alert for noninfectious causes of symptoms such as COPD exacerbations.
- Obtain laboratory confirmation by testing specimens from several symptomatic patients and/or staff as soon as possible after illness onset.
 - Selection of diagnostic tests should depend on the respiratory viruses circulating in the facility and/or community.
 - Facilities should consult with public health authorities to decide which tests should be performed.
- Lab testing in an outbreak setting may be done through the facility's standard procedures or at PHEL with prior approval by NJDOH. The LHD or NJDOH can assist with facilitating testing at PHEL. Please refer to PHEL's protocols on specimen collection, storage, and shipping of respiratory viruses. **All specimens sent to PHEL must be pre-approved by NJDOH and [properly labeled and packaged](#).**
 - For detailed instructions on specimen collection, storage, packaging, labeling and shipping of respiratory viruses please see: [PHEL Testing, Respiratory Viruses | NJDOH](#)
- **SARS-CoV-2 Testing:**
 - **Test for SARS-CoV-2 by nucleic acid detection OR by SARS-CoV-2 antigen detection assay.** Because antigen detection assays have lower sensitivity than nucleic acid detection assays for detecting SARS-CoV-2 in upper respiratory tract specimens, a negative SARS-CoV-2 antigen detection assay result *in a symptomatic person* does not exclude SARS-CoV-2 infection and should be confirmed by either a negative result from a SARS-CoV-2 nucleic acid detection assay or a second negative antigen test result on an upper respiratory tract specimen collected 48 hours after the first negative test result. If the second antigen test is negative, per [FDA guidance](#), a third antigen test could be considered if there is a high clinical suspicion of COVID-19.
- **Influenza Testing:**
 - **The following influenza tests are recommended: molecular assays, including rapid molecular assays, other molecular tests, or reverse transcription polymerase chain reaction (RT-PCR).** If influenza molecular assays are not available, and rapid influenza diagnostic tests (RIDTs) or immunofluorescence assays are used, false negatives can

occur because of lower sensitivities. If influenza is suspected and RIDTs or immunofluorescence results are negative, molecular influenza assays should be used to confirm results.

- **Other Respiratory Pathogen Testing:**

- If other respiratory pathogens other than influenza and SARS-CoV-2 are suspected, consider using multiplex RT-PCR assays targeting a panel of respiratory pathogens based on those known or suspected to be circulating, and/or based on clinical symptomatology (e.g., RSV, HPIV, and/or bacterial testing).
- After a single laboratory-confirmed case of any respiratory virus among patients has been identified, it is likely that subsequent cases of associated respiratory illness are also caused by the same organism; however, co-circulation of more than one pathogen can occur, especially when respiratory illness activity in the community is elevated. Persons developing compatible symptoms should be tested for respiratory pathogens. Ideally, at least two laboratory-confirmed cases within an incubation period are needed to confirm an outbreak's etiology. When necessary, collect additional specimens from newly ill cases. When fewer than two laboratory-confirmed cases are found, a probable infectious agent can be inferred through clinical signs and symptoms.

- **Testing Asymptomatic Individuals:**

- **Consider testing asymptomatic patients if resources allow, especially if they have been in close contact with individual(s) with a respiratory infection**, as some respiratory illnesses can be transmitted from asymptomatic infected persons to others.
- **Interpretation of test results from asymptomatic individuals**, along with interventions driven by those results, should be done in consultation with public health, infection prevention staff, and applicable care staff (such as an infectious disease physician).
- **If COVID-19 is suspected**, asymptomatic patients having close contact with an ill individual should have a series of three viral tests, with the first test no less than 24 hours after exposure. If negative, the second test should be taken 48 hours after the first, and if negative again, the third test should be taken 48 hours after the second. However, testing is not generally recommended if the patient has recovered from SARS-CoV-2 infection in the past 30 days (due to challenges with result interpretation), and if the patient has recovered in the past 31-90 days, use of an antigen test (instead of a nucleic acid detection assay, or NAAT test) is recommended. Source control (i.e., patient masking) should be implemented while awaiting test results.

For additional information please see: [Testing and Management Considerations for Nursing Home Residents with Acute Respiratory Illness Symptoms when SARS-CoV-2 and Influenza Viruses are Co-circulating | CDC](#), [Influenza virus testing in investigational outbreaks in institutional or other closed settings | CDC](#), and [Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 \(COVID-19\) Pandemic | CDC](#).

3. Develop an outbreak case definition

An outbreak case definition describes the criteria that an individual must meet to be counted as an outbreak case. This includes clinical signs and symptoms, physical location and specific time period. Every outbreak will have a unique outbreak case definition.

The outbreak case definition will be developed by the LHD or NJDOH epidemiologist in coordination with the facility based on the current situation. The NJDOH epidemiologist is available for consultation as needed. Outbreak cases should be counted based on this working outbreak case definition using the case line list.

4. Perform active surveillance

- Promptly identify additional cases of respiratory illness among patients and staff. Be alert for new-onset illness among exposed persons, and review patient and staff histories to identify previous cases that may not have been correctly recognized as being part of the outbreak.
- Use respiratory viral testing promptly in newly identified cases of respiratory illness so that infection control measures can be initiated to prevent further spread (e.g., antiviral prophylaxis).

5. Document & count cases

- The facility shall develop and maintain a line list. Starting and maintaining a line list helps track the progress of an outbreak. A sample facility line list for patients with acute respiratory illness may be found here: <https://www.nj.gov/health/cd/topics/outbreaks.shtml#1>.
- The facility shall share the updated line list with the LHD daily. The facility should ensure that information on hospitalizations and deaths is promptly communicated and reflected on the line list.
- The LHD shall frequently review the line list with the facility and the NJDOH epidemiologist to assess the status of the outbreak and make recommendations regarding control measures. Use the outbreak case definition when reporting and counting outbreak cases.

6. Identify & eliminate possible transmission sources

- A floor plan may be used in conjunction with the line list to document the physical locations of case-patients and ill staff to identify possible transmission routes. The facility, LHD and NJDOH should collaborate to determine the outbreak source. Occasionally, even with thorough investigation, the source might not be identified.
- **Exclude sick staff.** Staff members who become sick with a fever and/or respiratory symptoms shall be sent home immediately. Before sending staff home, the facility should perform rapid testing and use an antiviral agent for treatment or prophylaxis, if appropriate.
 - Encourage staff to seek medical care and receive respiratory pathogen testing to optimize treatment and inform appropriate return to work.

- **Monitor personnel absenteeism.** Monitor personnel absenteeism due to respiratory symptoms and exclude those with influenza-like symptoms from work until at least 24 hours after they no longer have a fever.³
- **Inform receiving facilities of the outbreak when transferring patients.** Transfer notification applies to both ill patients and exposed well patients. If possible, limit transfers to medical necessity.

7. Institute control measures

Evaluate the existing hierarchy of controls, including administrative (e.g., staffing, screening) and engineering controls (e.g., partitions, air quality) to minimize hazardous exposures that cannot be eliminated.

Review the following:

- OSHA [Identifying Hazard Control Options: The Hierarchy of Controls](#)
- CDC [Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings](#)

A. Maintain Standard Precautions⁴

Standard Precautions are intended to be applied to the care of all patients in all healthcare settings, regardless of the suspected or confirmed presence of an infectious agent. Based on risk assessment, common-sense practices, and PPE use, Standard Precautions protect healthcare providers from injury or the spread of infection.

- Use PPE whenever possible exposure to infectious material is expected. This includes procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, and secretions, especially suctioning and endotracheal intubation. During aerosol-generating procedures on patients with suspected or proven infections transmitted by respiratory aerosols, wear a fit-tested N95 or higher respirator in addition to gloves, gown, and face/eye protection.
- Remove gloves and gowns after each patient encounter and perform hand hygiene. Refer to the CDC Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007) for examples of [Safe Donning and Removal of PPE](#).
- Perform hand hygiene immediately before touching a patient, before performing an aseptic task, before moving from work on a soiled body site to a clean body site, after touching a patient or their surroundings, after contact with blood, body fluids, or contaminated surfaces, and immediately after glove removal.
 - **Hand washing should be performed** when hands are visibly soiled, before eating, after using the restroom, and during the care of patients.
 - **Use of an alcohol-based hand sanitizer** is the preferred method for hand hygiene in healthcare settings when soap and water are not available.
 - Additional information and resources on hand hygiene can be found at:

- [New Jersey Department of Health | Communicable Disease Service | Handwashing Materials](#)
- [Guideline for Hand Hygiene in Healthcare Settings \(2002\) | CDC](#)
- Follow respiratory hygiene/cough etiquette principles. This includes providing facemasks to patients, healthcare personnel, and visitors with signs and symptoms of respiratory infection as part of Standard Precautions, which is distinct from Transmission-Based Precautions.
- Operate and maintain patient care equipment in accordance with the manufacturer’s instructions for use, including cleaning and disinfection.
- Routinely clean and disinfect the environment. Handle textiles and laundry in a manner that prevents the transfer of microorganisms to others and to the environment.
- Use safe injection practices. Vaccines should be drawn up in a designated clean medication area that is not adjacent to areas where potentially contaminated items are placed. Multi-dose vials to be used for more than one patient should not be kept or accessed in the immediate patient treatment area. This is to prevent inadvertent contamination of the vial through direct or indirect contact with potentially contaminated surfaces or equipment that could then lead to infections in subsequent patients.
- Note that during times of increased respiratory illness activity, facilities may choose to implement more stringent precautions based on the facility’s assessment of patient population risk, physical setup of the facility, etc.

B. Institute Additional Transmission-Based Precautions

Transmission-Based Precautions are used when the mode of transmission is not completely interrupted using Standard Precautions alone. Transmission-Based Precautions are used in addition to Standard Precautions for patients who may be infected or colonized with certain infectious agents for which additional precautions are needed to prevent infection transmission.

Recommendations for the disease-specific type and duration of precautions are outlined in CDC Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007), [Appendix A: Type and Duration of Precautions Recommended for Selected Infections and Conditions | CDC](#); Table 2. provides a list of [Clinical Syndromes or Conditions Warranting Empiric Transmission-Based Precautions in Addition to Standard Precautions](#), pending confirmatory diagnostics. Transmission-Based Precautions may be extended for immunosuppressed patients due to prolonged shedding of viral particles that may be transmitted to others.

For additional information, see [CDC Infection Control: Transmission-Based Precautions](#).

Actions Common to All Transmission-Based Precautions

In addition to Standard Precautions, some interventions/actions are to be taken in all Transmission-Based Precaution categories. These include:

- Source control (i.e., patient masking as tolerated if outside of the room) is recommended for patients suspected of having SARS-CoV-2 infection or any other respiratory infection, even if asymptomatic.
- Single-patient rooms are preferred when available (and necessary for Airborne Precautions). Decisions regarding patient placement should be made on a case-by-case basis after considering infection risks to other patients in the room and available alternatives. Patients with symptoms of respiratory infection should be discouraged from using common areas when feasible.
- Hands must be cleaned using proper handwashing hygiene both before entering and when leaving the patient's room.
- Limit transport and movement of patients outside of the room to medically necessary purposes and cover or contain the infected or colonized areas of the patient's body. This includes masking the patient for source control, if tolerated, for Droplet, Airborne, and COVID-19 Transmission-Based Precautions.
- Ensure rooms of patients on Transmission-Based Precautions are cleaned and disinfected frequently (e.g., at least daily), focusing on frequently touched surfaces and equipment in the immediate vicinity of the patient, going from the clean areas to the dirty areas.
- **Note:** For asymptomatic patients being tested for respiratory pathogens after close contact with an ill individual, empiric use of Transmission-Based Precautions may be considered if the patient is: unable to be tested or wear source control as recommended; is moderately to severely immunocompromised; is residing on a unit with others who are moderately to severely immunocompromised; is residing on a unit experiencing ongoing viral respiratory virus disease transmission.

Contact Precautions

Use Contact Precautions for patients with known or suspected infections that represent an increased risk for contact transmission. In addition to the above actions common to all Transmission-Based Precautions, for Contact Precautions also implement the following:

- Healthcare personnel should wear a gown and gloves for all interactions that may involve contact with the patient or the patient's environment. Put on a gown and gloves before room entry, and discard PPE before room exit. Do not wear the same PPE for the care of more than one patient.
- Use disposable or dedicated patient-care equipment (e.g., blood pressure cuffs, stethoscopes). If common use of equipment for multiple patients is unavoidable, clean and disinfect such equipment before use on another patient.

For an infographic (available in English and Spanish) on Contact Precautions, see: <https://www.cdc.gov/infection-control/media/pdfs/droplet-precautions-sign-P.pdf>

Droplet Precautions

Droplet Precautions are intended to prevent transmission of pathogens spread through close respiratory or mucous membrane contact with respiratory secretions. In addition to the above actions common to all Transmission-Based Precautions, for Droplet Precautions also implement the following:

- Healthcare personnel should wear a mask before entering the patient's room.
- If transport and movement of the patient outside of the room is medically necessary, instruct the patient to wear a mask as tolerated.
- **Influenza:** Droplet Precautions should be implemented for patients with suspected or confirmed influenza for seven days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms, whichever is longer. Droplet Precautions should continue while the patient is taking antiviral treatment.

For an infographic (available in English and Spanish) on Droplet Precautions, see: <https://www.cdc.gov/infection-control/media/pdfs/droplet-precautions-sign-P.pdf>

Airborne Precautions

Airborne Precautions are intended to prevent transmitting pathogens via the airborne route. In addition to the above actions common to all Transmission-Based Precautions, for Airborne Precautions also implement the following:

- Ensure appropriate patient placement in an airborne infection isolation room (AIIR). When an AIIR is unavailable, masking and placing the patient in a private room with the door closed will reduce the likelihood of airborne transmission until the patient is transferred to a facility with AIIR.
- Healthcare personnel should wear a fit-tested NIOSH-approved N95 or higher-level respirator, which should be removed after exiting the patient care environment.
- If transport or movement outside an AIIR is necessary, instruct patients to wear a mask as tolerated. Healthcare personnel transporting patients who are on Airborne Precautions do not need to wear a mask or respirator during transport if the patient is wearing a mask unless this is recommended as part of outbreak control.

For an infographic (available in English and Spanish) on Airborne Precautions, see: <https://www.cdc.gov/infection-control/media/pdfs/airborne-precautions-sign-P.pdf>

C. COVID-19 Transmission-Based Precautions

- Healthcare personnel should wear a fit-tested NIOSH-approved N95 or higher-level respirator, plus gown, gloves, and eye protection (i.e., goggles or a face shield that covers the front and sides of the face).
- If transport and movement of the patient outside of the room is medically necessary, instruct the patient to wear a mask as tolerated.
- Recommended duration of Transmission-Based Precautions for patients with suspected or confirmed COVID-19 can range from 10 to 20 days or more, depending on severity of

illness, immunocompromise status, and risk of other patients in the facility. See [Duration of Transmission-Based Precautions for Patients with SARS-CoV-2 Infection | CDC](#).

For an infographic on recommended PPE when caring for patients with confirmed or suspected COVID-19, see: https://www.cdc.gov/coronavirus/2019-ncov/downloads/A_FS_HCP_COVID19_PPE.pdf

D. Placement & Cohorting of Patients, Staff, & Equipment

The LHD, in consultation with NJDOH, shall provide recommendations and guidance to the facility regarding outbreak control measures. Control measures can negatively impact patients' quality of life by restricting their lifestyle for a period of time, and staffing limitations may necessitate modification of certain control measures. Nevertheless, the facility should make every effort to institute and maintain adequate control measures until the outbreak is declared over.

Additional outbreak control measures are listed below:

- As noted above, single-patient rooms are preferred when there is a concern about transmission of an infectious agent; when single rooms are limited, priority should be given to patients at higher risk of transmitting infectious material to others (e.g., uncontained secretions) and those at increased risk of infection and adverse outcomes, such as those with immunosuppression, prolonged length of stay, or total dependence on healthcare personnel for activities of daily living.
- Cohorting patients entails grouping together individuals who are exposed to or infected with the same organism to confine their care to one area and prevent contact with other patients. Cohorts are created based on clinical diagnosis, etiologic organism confirmation when available, epidemiology, and the mode of transmission of the infectious agent.
- In general, symptomatic patients should remain in their assigned room as much as possible, including restricting them from common areas and group activities. Medical necessary services and activities should occur in their room during the infectious isolation period.
- Assigning or cohorting healthcare personnel and equipment to specific units or patients infected with (or exposed to) a single pathogen may help limit further transmission after implementing routine infection prevention and control measures. Staff assigned to affected unit(s) should not rotate to unaffected units until the LHD and NJDOH have determined that the outbreak is under control. This restriction includes prohibiting staff from working on unaffected units after completing their usual shift on the affected unit(s), when possible. If equipment must be shared, it should be terminally cleaned and disinfected before transporting to another unit.
 - Consider modifying use of shared care areas (such as physical therapy rooms). Modifications may include distancing of equipment, placement and rotation of mobile HEPA filtration systems for use by patients with suspected respiratory infection, etc. Consider closing the facility to new admissions if the physical set-up does not allow for separation and safe care delivery within distinct cohorts.
- **For specific recommendations when COVID-19 and influenza are co-circulating, see [“Special](#)**

[Considerations when COVID-19 and Influenza are Co-circulating: Additional Information on Testing, Precautions, and Patient Placement](#)” located toward the end of this document immediately following Section 9 (“Summarize the investigation in a written report”).

For reference please see: [2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings \(July 2023 update\) \(cdc.gov\)](#) and [Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 \(COVID-19\) Pandemic | CDC](#).

E. Vaccinations

Vaccinations for respiratory diseases such as [COVID-19, influenza, and RSV](#) combined with basic infection prevention and control practices can help prevent transmission among healthcare personnel and LTCF patients. Outbreaks of vaccine-preventable and other illnesses can still occur even when vaccine coverage among LTCF patients is high. The facility should:

- Educate eligible patients and staff on the availability of vaccines for the prevention of severe illness.
- Ensure patients and staff are up to date with the recommended influenza, COVID-19, and RSV vaccines. If eligible, influenza, COVID-19, and RSV vaccines can be [simultaneously administered](#).
- Provide information using posted materials or letters to families and visitors encouraging them to be vaccinated. For helpful resources and materials to provide for families and visitors please see [CDC's Vaccine Information for Adults](#).

F. Antiviral Treatment & Chemoprophylaxis

The facility shall provide antiviral treatment and chemoprophylaxis as needed.

Antiviral Treatments are available for [influenza](#) and [COVID-19](#).

- [Influenza](#): The facility's medical director should administer antiviral treatment immediately to patients who have confirmed or suspected influenza. Antiviral treatments work best when started within the first two days of symptoms; however, these medications can still help when given after 48 hours to those that are very sick, such as those who are hospitalized or at a higher risk for complications.
- [COVID-19](#): COVID-19 antiviral treatments work best when started as soon as possible, and within 3-5 (for oral treatment) or 7 (for intravenous treatment) days of symptom onset.

Chemoprophylaxis^{6,7} using antiviral medications is a key component of influenza outbreak control in institutions that house patients at higher risk of influenza complications.

- Antiviral chemoprophylaxis is meant for patients who are not exhibiting influenza-like illness but who may be (or may have been) exposed to an ill person with influenza, to prevent transmission.

- As soon as an influenza outbreak is determined, the facility should promptly initiate antiviral chemoprophylaxis to all non-ill patients living on the same unit as patient(s) with laboratory-confirmed influenza (outbreak affected units), regardless of vaccination status.
- Consideration may be given for extending antiviral chemoprophylaxis to patients on other unaffected units based upon other factors (e.g., unavoidable mixing of patients or healthcare personnel from affected units and unaffected units).
- CDC recommends antiviral chemoprophylaxis with oseltamivir for a minimum of two weeks and continuing for at least seven days after the last known laboratory confirmed case was identified on affected units.

G. Provide In-service Education to All Staff on All Shifts

- In addition to all direct caregivers employed by the facility, staff includes volunteers, private duty, contracted or agency personnel who perform housekeeping, recreational, laundry, dietary, nursing, medical, social service, physical therapy, and administrative activities.
- Provide information on the infecting organism and its transmission, Standard and Transmission-Based Precautions, movement restrictions, environmental measures, and policies on specimen collection and submission.
- Ensure current competency assessment of infection prevention and control elements and implement routine auditing with feedback to staff to monitor for compliance. Refer to the [NJDOH Infection Prevention & Control: Observational Audit vs. Competency Assessment](#).
- Contact the [LHD](#) for fact sheets or other pertinent educational materials.

Refer to CDC's [Viral Respiratory Pathogens Toolkit for Nursing Homes](#)

H. Encourage Limited Visits from Family, Friends, & Volunteers

- Visitors with respiratory symptoms and those suspected of having a respiratory infection should be encouraged to postpone their visit until their symptoms resolve. However, a family member determined to visit may do so under any circumstance. For such visitors, provide a mask and instruct them to limit their visit only to their respective family members and to avoid common areas and group settings.
- Post signs to reinforce infection control measures, including recommendations for using appropriate PPE and performing hand hygiene before entering and leaving patient rooms. Signage should be eye-catching and posted at building entrances as well as outside patient rooms.
- Educate all visitors (e.g., family, friends, volunteers) on the importance of vaccination to prevent infection.
- Provide tissues and/or masks to patients and visitors who are coughing or sneezing so that they can cover their mouth and nose.
- Provide tissues and alcohol-based hand rubs in common areas and waiting rooms. Encourage

visitors to properly discard used tissues in waste bins.

I. Environmental Measures

- Increase routine and daily cleaning and disinfection frequency during a respiratory outbreak. In general, facilities should increase the frequency of routine and daily cleaning and during respiratory disease season.
- Review the approved list of disinfectants to ensure products are U.S. Environmental Protection Agency (EPA)-registered disinfectants approved for use in healthcare settings. Evaluate the product claims and contact times (how long a disinfectant must stay wet on a surface to be effective) to ensure the selection of products are effective against organisms of concern (e.g., SARS-CoV-2, influenza) and commonly seen healthcare pathogens. Ensure staff demonstrates knowledge about the contact times and manufacturers' instructions for the use. Refer to the following resources:
 - CDC [Guideline for Disinfection and Sterilization in Healthcare Facilities](#)
 - EPA [Registered Disinfectants](#)
 - For COVID-19 (SARS-CoV-2) see EPA [List N](#).
 - For adenoviruses, refer to the list for norovirus, see EPA [List G](#).
 - For rare or novel viruses, see EPA [List Q](#).
- Special handling of soiled linens and dietary trays is not necessary.
- Maintain general healthcare environmental cleaning techniques. Refer to the CDC [Guidelines for Environmental Infection Control in Healthcare Facilities](#).

8. Evaluate the effectiveness of control measures & modify as needed

- Generally, an outbreak is considered over when two incubation periods have passed without a new case being identified.
- If new cases are identified after control measures have been instituted for one incubation period, continue outbreak control measures in consultation with the LHD and NJDOH.
- **Evaluate and enforce adherence to infection control precautions by all staff, patients, and visitors.** Continue control measures until no new cases are identified for two incubation periods.
- When no new cases are identified after two incubation periods, outbreak control measures may be discontinued, although facilities should continue active surveillance for new cases according to LHD recommendations.

9. Summarize the investigation in a written report

The LHD shall submit a final written report to NJDOH within 30 days of completion of the investigation. See the NJDOH website for the report format, available at <https://www.nj.gov/health/forms/cds-30.pdf> (form CDS-30).

Considerations when COVID-19 & Influenza are Co-circulating

Testing:

- **Symptomatic patients should be tested for both viruses when COVID-19 and influenza are co-circulating in the community and/or facility.** Since COVID-19 and influenza co-infection can occur, a positive influenza test result without SARS-CoV-2 testing does not exclude SARS-CoV-2 infection, and vice-versa.
- **If available, a multiplex nucleic acid detection assay for SARS-CoV-2 and influenza A and B viruses is preferred** and can be performed onsite or at an offsite clinical laboratory. Two different specimens are needed if no multiplex nucleic acid detection assay including influenza A and B and SARS-CoV-2 is available.

Precautions & Placement:

- **Patients with symptoms of acute respiratory illness who are determined to have neither SARS-CoV-2 nor influenza virus infection** should be cared for using Standard Precautions and any additional Transmission-Based Precautions based on their suspected or confirmed diagnosis. Consider additional testing based on respiratory pathogens known or suspected to be circulating in the community.
- **Patients who test positive for SARS-CoV-2 infection** should be placed in a single room, if available, or housed with other patients with only SARS-CoV-2 infection. If unable to move a patient, he or she could remain in the current room with measures in place to reduce transmission to roommates (e.g., optimizing ventilation).
- **Patients who test positive for SARS-CoV-2 and influenza virus co-infection** should be placed in a single room or housed with other co-infected patients. These patients should continue to be cared for using [all recommended PPE](#) for SARS-CoV-2 infection. If single room isolation or cohorting of patients with SARS-CoV-2 and influenza virus co-infection is not possible, consider other management options (e.g., transferring the patient; placing physical barriers between beds in shared rooms and initiating antiviral chemoprophylaxis for roommates to reduce their risk of acquiring influenza, improving ventilation by adding HEPA filters) and/or consult with public health authorities for guidance.
- **Patients who test positive for influenza virus infection only** should be placed in a single room, if available, or housed with other patients with only influenza virus infection. Patients with influenza should be placed on [Droplet Precautions](#), in addition to Standard Precautions. If unable to move a patient, he or she could remain in the current room with measures in place to reduce transmission to roommates (e.g., optimizing ventilation, antiviral chemoprophylaxis for exposed roommates).
- **Asymptomatic patients being tested for SARS-CoV-2 or other respiratory pathogens:**
 - Place a patient with suspected or confirmed SARS-CoV-2 or other respiratory infection in a single-person room, if possible; the door should be kept closed (if safe to do so) and

ideally, the patient should have a dedicated bathroom.

- Limit transport and movement of the patient outside of the room to medically essential purposes, and have the patient wear a mask if tolerated.
- Communicate information about patients with suspected or confirmed SARS-CoV-2 infection to appropriate personnel before transferring them to other departments in the facility (e.g., radiology) and to other healthcare facilities.

Reference: [Testing and Management Considerations for Nursing Home Residents with Acute Respiratory Illness Symptoms when SARS-CoV-2 and Influenza Viruses are Co-circulating | CDC](#)

Resources

[Respiratory Virus Activity Levels Dashboard](#)

[NJDOH Weekly COVID-19 and Respiratory Illness Activity Reports](#)

[NJDOH Weekly Influenza Surveillance Reports](#)

[Information on Testing, Shipping, and Storing of Respiratory Specimens](#)

[Shipping Clinical Specimens to PHEL](#)

[How to Order Respiratory Testing Online at PHEL](#)

[CDC Viral Respiratory Pathogens Toolkit for Nursing Homes](#)

[CDC Reminder: Infection Control Actions to Take During Respiratory Virus Season](#)

[CDC Prevention Strategies for Seasonal Influenza in Healthcare Settings](#)

[CDC Interim Guidance for Influenza Outbreak Management in Long-Term Care and Post-Acute Care Facilities](#)

[CDC Testing and Management Considerations for Nursing Home Residents with Acute Respiratory Illness Symptoms when SARS-CoV-2 and Influenza Viruses are Co-circulating](#)

[CDC Nursing Homes and Assisted Living \(Long-term Care Facilities Be a Safe Resident](#)

References

- ¹ New Jersey Administrative Code, Title 8. Department of Health, Chapter 57: Communicable Diseases. Available at <https://casetext.com/regulation/new-jersey-administrative-code/title-8-health/chapter-57-communicable-diseases/subchapter-1-reportable-communicable-diseases>. Accessed October 27, 2023
- ² Centers for Disease Control and Prevention, Seasonal Influenza: Interim Guidance for Antiviral Use, Available at <http://www.cdc.gov/flu/professionals/antivirals/index.htm>. Accessed October 27, 2023
- ³ Centers for Disease Control and Prevention, Preventions Strategies for Seasonal Influenza in Healthcare Settings. Available at <http://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm>. Accessed October 27, 2023
- ⁴ Centers for Disease Control and Prevention, Standard Precautions for All Patient Care. Available at <https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html>. Accessed May 17, 2024
- ⁵ Centers for Disease Control and Prevention, 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. Available at <http://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html>. Accessed October 27, 2023
- ⁶ Centers for Disease Control and Prevention, Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities <http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>. Accessed October 27, 2023Centers for Disease Control and Prevention, Guideline for Hand Hygiene in Health-Care Settings, MMWR Morbidity and Mortal Weekly Report. Available at <http://www.cdc.gov/mmwr/PDF/rr/rr5116.pdf> October 25, 2002; 51: RR-16; 1-45. Accessed October 27, 2023
- ⁷ Timothy M Uyeki, Henry H Bernstein, John S Bradley, Janet A Englund, Thomas M File, Alicia M Fry, Stefan Gravenstein, Frederick G Hayden, Scott A Harper, Jon Mark Hirshon, Michael G Ison, B Lynn Johnston, Shandra L Knight, Allison McGeer, Laura E Riley, Cameron R Wolfe, Paul E Alexander, Andrew T Pavia, Clinical Practice Guidelines by the Infectious Diseases Society of America: 2018 Update on Diagnosis, Treatment, Chemoprophylaxis, and Institutional Outbreak Management of Seasonal Influenza, *Clinical Infectious Diseases*, Volume 68, Issue 6, 15 March 2019, Pages e1–e47, <https://doi.org/10.1093/cid/ciy866>. Accessed February 6, 2024.Centers for Disease Control and Prevention, Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities <http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>. Accessed October 27, 2023