

Guidelines for Respiratory Illness Outbreaks in Long-Term Care Facilities (LTCF)

Define the outbreak:

Case definition for acute respiratory illness: In the absence of a lab identified respiratory pathogen, use revised McGeer's case definition of respiratory illnesses: [McGeer's Case Classification Worksheet](#)

Outbreak definition for acute respiratory illness: An increase in the number of cases of acute respiratory illness over and above the expected number of cases with no lab identified pathogen. After determining the usual/expected rates of respiratory diseases and giving consideration to seasonal variation, you can determine the threshold for outbreak detection.

OR

Three or more cases of the same lab identified pathogen within a 14-day period, excluding residents who were known to have COVID-19 or another respiratory pathogen on admission to the facility and were placed into transmission-based precautions.

Acute respiratory outbreaks include: COVID-19, RSV, Rhinovirus, Metapneumovirus, etc.

Case definition for Influenza-like Illness (ILI):

1. The McGeer criteria were developed for residents of long-term care settings who may show atypical signs of influenza (**see included McGeer worksheet**).
2. **Fever:** either a single oral temperature $>37.8^{\circ}\text{C}$ (100°F); repeated oral temperatures $>37.2^{\circ}\text{C}$ (99°F) or rectal temperatures $>37.5^{\circ}\text{C}$ (99.5°F); or a single temperature $>1.1^{\circ}\text{C}$ (2°F) over baseline from any site, and;
3. **At least three ILI sub-criteria:** chills, new headache or eye pain, body aches, loss of appetite, sore throat, new or increased dry cough.

The classical ILI definition (fever AND cough and/or sore throat) can be applied to staff.

Outbreak Definitions for Influenza:

1. One laboratory-confirmed influenza positive case identified along with other cases of acute respiratory illness on a unit.
2. Two cases of laboratory-confirmed influenza identified within 72 hours of each other on the same unit. Influenza testing with molecular assays such as RT-PCR is preferred and is available through the state public health laboratory.

Prior to having an outbreak:

1. Develop policies to address the authority of Infection Preventionist (IP) to implement infection control measures.
2. Encourage residents and healthcare personnel to obtain an annual, age-appropriate vaccination per CDC recommendations. Consider implementing strategies that may increase vaccination rates at your facility (standing orders, staff incentives, etc.).
3. Conduct daily active surveillance for acute respiratory illness among all new and current residents, healthcare personnel and visitors of LTCF. Healthcare personnel and visitors who are identified with illness should be excluded from the facility until their illness has resolved. Ill residents should be placed on droplet precautions with room restriction and exclusion from participating in group activities.
4. Regularly educate residents and visitors about respiratory hygiene, hand hygiene, cough etiquette, and take steps to ensure adherence to them.
5. Educate all staff about their roles in infection prevention and control, such as hand hygiene, isolation precautions, cohorting, staying home when they get sick, the use of personal protective equipment, and the benefits of influenza vaccination in preventing illness among residents and staff. Competency training upon hire and annually.
6. At any time of year, conduct COVID-19 and influenza testing for any resident who has signs or symptoms of acute respiratory or ILI.
7. Consider having standing orders from physicians or plans to obtain orders for antiviral medications to expedite administration during an outbreak.

When you have a suspected outbreak of respiratory illness:

1. Report the outbreak immediately to your local health department (LHD) and stay in touch throughout the outbreak.
2. Test residents with symptoms of COVID-19 or influenza for both viruses. If negative for both, test for other respiratory pathogens.
For testing through the state public health laboratory: Collect 5-10 nasopharyngeal swabs from ill residents or staff within 48-72 hours of onset of illness. Collaborate with your LHD to obtain testing kits and ship them to the West Virginia Office of Laboratory Services (OLS) within the West Virginia Department of Health and Human Resources, Bureau for Public Health. Information on collection and shipment can be found on the OLS website: dhhr.wv.gov/ols/labs/Documents/Micro/Influenza_Collection_Instructions.pdf.
3. Look for new cases and inform your healthcare provider about every new case.
4. Use McGeer's worksheet for classifying cases of respiratory illness in **residents only**. The worksheet can be found by [clicking here](#).
5. Start a line list using the data from the worksheet and update daily for the duration of the outbreak. Line list is available in [PDF](#) format or in [Excel](#) format.
6. Implement appropriate infection control measures (see below). Monitor effectiveness of control measures with data collected on the line list.
7. Avoid the unnecessary use of antibiotics, particularly if you suspect a viral illness.

To help control the spread of infection...

1. Practice respiratory hygiene and cough etiquette including the following components: a) education of residents, staff, visitors; b) posted signs in appropriate language; c) source control measures (e.g., covering the mouth/nose with a tissue when coughing); d) hand hygiene; and e) spatial/social distancing, ideally >3 feet.
2. Place symptomatic residents in Transmission-Based Precautions using all recommended personal protective equipment (PPE) for care of a resident with suspected SARS-CoV-2 infection.
3. Residents be placed in standard precautions, along with droplet precautions as follows:
 - Place ill patients in private rooms. If this is not possible, place ill patients with the same confirmed illness (and no other infections) in the same room or wing (cohorting).
 - If cohorting is not possible, maintain separation of at least 3 feet between the infected resident and other residents, staff, and visitors. Use a cubicle curtain between beds.
 - Cohort staff. Avoid sharing staff between affected and unaffected residents, if possible.
 - Use personal protective equipment (PPE), such as a mask, when entering the room of a resident suspected or confirmed to have influenza. Remove and properly dispose of PPE upon leaving the room of an infected resident, wash hands, and then use a new mask before moving to another room. Hand hygiene, PPE, and environmental audits should be increased during an outbreak. Recommend 10 per shift, per day.
 - Outbreaks of certain viral pathogens such as parainfluenza virus and human metapneumovirus require adding contact precautions to the above measures. Residents with symptoms of acute respiratory illness who are determined to have neither SARS-CoV-2 infection nor influenza should be cared for using Standard Precautions and any additional Transmission-Based Precautions based on their suspected or confirmed diagnosis.
4. Ill staff should stay off work until afebrile, off antipyretics for 24 hours, and improving.
5. Limit transportation of ill residents. Have the ill resident wear a surgical mask if transport is necessary. Notify the receiving facility when transferring ill residents.
6. Consider limiting large gatherings and serving meals in the resident rooms when there is widespread transmission.
7. Avoid new admissions and/or transfers to the affected units.
8. Limit visitor movement in the facility. Instruct visitors on appropriate hand hygiene and cough etiquette. Instruct ill visitors not to enter the facility.

*Additional considerations for COVID-19 outbreaks

Follow [CMS outbreak testing guidelines](#). Facilities are encouraged to perform outbreak testing through contact tracing rather than broad-based (facility wide testing). Focused testing based on known close contacts is recommended. If a facility does not have the resources to conduct contact tracing or ability to identify all the close contacts, they should instead test the unit, floor, or specific area of the facility. Broad based facility testing is resource intensive and no longer valuable in the context of the current pandemic in most situations. Facility wide testing may be considered when contact tracing fails to stop transmission or facility is unable to manage the outbreak. Facilities should follow [CMS guidance for visitation](#).

*Additional considerations for influenza outbreaks

1. Administer influenza antiviral treatment and chemoprophylaxis to residents and healthcare personnel according to current recommendations. Refer to references above and CDC's [Influenza Antiviral Medications: Summary for Clinicians](#).
2. Do not wait for testing results to initiate antiviral treatment for all residents who have confirmed or suspected influenza.
3. Administer antiviral chemoprophylaxis for all non-ill residents living on the same unit(s), regardless of their influenza vaccination status.
4. Consideration may be given for extending antiviral chemoprophylaxis to residents on other unaffected units in the long-term care facility based upon factors (e.g., unavoidable mixing of residents or healthcare personnel from affected units and unaffected units).
5. Antiviral chemoprophylaxis is meant for residents who are not exhibiting ILI but who may have been exposed to an ill person with influenza to prevent transmission.
6. Consider antiviral chemoprophylaxis for unvaccinated healthcare personnel who provide care to those at high risk of influenza complications.
7. Antiviral chemoprophylaxis is recommended for at least two weeks and continuing for at least 7-10 days after identification of the last confirmed case.

*Special considerations for residents with pneumonia:

In addition to the above measures, all residents suspected of having pneumonia should have a thorough evaluation as follows:

1. Complete physical examination by the facility healthcare provider/medical director and collect nasopharyngeal swabs as described above.
2. Complete Blood Count (CBC) with differential, blood culture before considering antibiotic treatment.
3. A sputum sample for gram stain and culture can be very helpful for making decisions about patient and outbreak management. Use clinical judgment.
4. Chest x-ray (CXR).
5. Other tests as indicated by clinical presentation, such as tests for legionella, mycoplasma, etc. Use clinical judgment.

REMEMBER: Outbreaks are immediately reportable to your LHD. For questions, contact the Division of Infectious Disease Epidemiology.

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