Respiratory Tract Infections

Outbreaks of respiratory tract infections in LTCFs are common and can be caused by many different organisms. Influenza viruses, pneumococci and RSV are some of the more common organisms. Once introduced, pathogens often spread rapidly.

- **Mode of Transmission:** respiratory droplets, direct and/or indirect contact
- **Symptoms:** fever, cough, sore throat, runny nose, congestion and muscle aches
- **Duration:** 2–10 days (individuals with flu are contagious 24 hours prior to symptom onset)

Influenza-Like Illness (ILI): Fever ≥ 100°F (orally) AND cough or sore throat

Upper Respiratory Illness (URI): Viral infection that affects the nose, throat, and airways

Influenza Outbreak: Suspected when two or more new cases of ILI occur within 72 hours, confirmed when at least one resident has a positive laboratory result for influenza.

Precautions

- Ensure vaccination and records are up-to-date and available.
  - Vaccination reduces transmission of influenza, staff illness and absenteeism and influenza-related illness, especially among people at increased risk for severe influenza illness.
- Droplet Precautions
  - Wear a mask, and gloves if hand contact is anticipated with respiratory secretions or potentially contaminated surfaces.
  - Wear a gown if soiling of clothes with a resident's respiratory secretions is anticipated.
  - Change gloves and gowns after each resident encounter and perform hand hygiene.
  - Gloves do not replace the need for performing hand hygiene.
- Perform hand hygiene before and after touching the resident, their environment, and any respiratory secretions, whether or not gloves are worn.

Reporting Process

Upon suspicion of an influenza outbreak, facilities are required to notify DOH-Collier at (239)252-8226. Once notified, DOH-Collier will provide initial guidance, educational materials and two forms (listed below). These forms should be completed by the facility. With this information DOH-Collier can provide appropriate recommendations, provide control measures and perform limited laboratory testing.

1. *Outbreak Report Form* which provides all pertinent information
2. *Line List for Respiratory Illness Outbreaks*, a list of all persons with symptoms that should be continuously updated and faxed daily to DOH-Collier to monitor the outbreak.

Specimen Collection

Specimen collection is an important step allowing for identification of the causal agent so appropriate control measures can take place. Specimen collection for ILI/Respiratory outbreaks may require an oropharyngeal or nasopharyngeal specimen.

Follow droplet precautions while collecting specimens from suspected residents regardless of vaccination status. This includes the use of gloves, a surgical mask and eye protection.

This can also be done/ordered by the facility or provider. DOH-Collier may provide additional testing (3-5 cases), if appropriate.

RESPIRATORY SPECIMEN COLLECTION INSTRUCTIONS

1. Immobilize the patient's head tilting it slightly back, have the patient open their mouth wide.
2. Using a sterile Copan swab, insert the swab into the back of the throat, touch the soft palate and gently rotate the swab.
3. Slowly remove swab from the mouth.
4. Place the swab into the transport tube containing pink media. Break off the swab stick and cap the tube.
5. Label the specimen tube with: Name, Date of Birth, and Date of collection.
6. Place swab in a Zip Lock Biohazard bag and refrigerate.
7. Call DOH-Collier to have the specimen picked up.

Outbreak Management and Control Measures

Below are suggested control measures for a respiratory illness:

- Isolate or cohort ill patients in their rooms until free of fever and/or symptoms for at least 24 hours without the use of fever reducing medication.
- Minimize the sharing of staff between units of the facility.
- Masks should be used by all staff with contact to symptomatic patients.
- Generate a health alert notice to be posted at all entrances and around the facility to alert visitors, staff, and patients of the outbreak and hand hygiene measures.
- Regularly clean or close water fountains as needed.
- Handle soiled linens carefully, without agitating them, to avoid dispersal of pathogens.
- Discourage/restrict visitation for any non-essential visitors while an outbreak is ongoing.
- Perform environmental disinfection with a routine disinfectant (disinfectant should state it kills influenza virus, respiratory illnesses, RSV, etc.).

Treatment and Prophylaxis

All long-term care facility residents who have confirmed or suspected influenza should receive antiviral treatment immediately and should not wait for laboratory confirmation of influenza. Antiviral treatment works 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 those who have progressive illness.

When at least two patients are ill within 72 hours of each other and at least one resident has laboratory-confirmed influenza, the facility should initiate antiviral chemoprophylaxis to all non-ill residents, regardless of vaccination status. Priority should be given to residents living in the same unit or floor as an ill resident. However, since staff and residents may spread influenza to residents on other units, floors or buildings of the same facility, it is recommended that all non-ill residents receive antiviral chemoprophylaxis to control influenza outbreaks.

Declaring Outbreak Over

Outbreak control measures can be lifted after two incubation periods of the suspected pathogen has passed with no new illness.