Background

The United States Center for Disease Control and Prevention (CDC) continues to closely monitor a respiratory virus known as the 2019 novel coronavirus, recently named COVID-19 (2019-nCoV), that originated in China. It has spread to several countries, including the United States, where several cases have now been identified.

To provide some perspective about this newest virus outbreak, the CDC estimates there is a potential for 26 million cases of influenza this season that will cause as many as 20,000 seasonal flu-related deaths.

To control the spread of disease caused by viruses, it’s important to note how the spread of viruses from person to person can vary. Some viruses are highly contagious (like measles), while others are less so. There is much more to learn about the transmissibility, severity and other features associated with 2019-nCoV and investigations are ongoing.

Coronaviruses are considered zoonotic, meaning they are normally only found in animals, but they can be transmitted between animals and people. Other types of coronaviruses that have been transmitted to humans include MERS (Middle East respiratory syndrome) and SARS (severe acute respiratory syndrome). Detailed investigations found that SARS-CoV was transmitted from civet cats to humans and MERS-CoV from dromedary camels to humans. Several known coronaviruses are circulating in animals that have not yet infected humans.

When person-to-person spread has occurred with MERS and SARS, it is thought to have happened mainly via respiratory droplets produced when infected persons cough or sneeze, similar to how influenza and other respiratory pathogens spread.

CDC estimates there is a potential for 26 million cases of influenza this season that will cause as many as 20,000 seasonal flu-related deaths.
**Symptoms**

Early recognition of flu-like illness is critical for infection control. Senior living communities should be on alert for and evaluate residents, their visitors, vendors and staff who have flu-like symptoms.

Influenza viruses and COVID-19 can include respiratory symptoms, fever, cough, shortness of breath and breathing difficulties. In more severe cases, infection can cause pneumonia, severe acute respiratory syndrome, kidney failure and even death. Fever may not be present in some patients, such as those who are very young, elderly, immunosuppressed or taking certain fever-lowering medications. Medical judgment should be used to guide testing of individuals in such situations.

If a person has been identified as having these symptoms, the community should notify the resident's primary care provider as soon as possible. Staff should not come to work when they are sick and, if they have flu-like symptoms, they should be advised to seek medical attention.

Another resource for senior living communities is their local or state health department in the event of a person under investigation (PUI) for 2019-nCoV.

**Person under investigation (PUI)**

In determining whether a person has the flu or COVID-19, the individual's travel history and contact with others who are ill needs to be investigated. According to the CDC, the table below illustrates a person who has both consistent clinical symptoms and risk factors.

<table>
<thead>
<tr>
<th>Clinical features</th>
<th>and</th>
<th>Epidemiologic risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever and symptoms of lower respiratory illness (e.g., cough, difficulty breathing) and</td>
<td>In the last 14 days before symptom onset, a history of travel from Wuhan China or</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>In the last 14 days before symptom onset, closed contact with a person who is under investigation for 2019-nCoV while that person was ill</td>
</tr>
<tr>
<td>Fever or symptoms of lower respiratory illness (e.g., cough, difficulty breathing) and</td>
<td>In the last 14 days, close contact with an ill person and laboratory-confirmed 2019-nCoV patient</td>
<td></td>
</tr>
</tbody>
</table>

**Exposure**

The CDC defines “close contact” as:

- Being within approximately six feet or in the room or care area of a person with COVID-19 for a prolonged period of time while not wearing recommended personal protective equipment (PPE) (e.g., gowns, gloves, NIOSH-certified disposable N95 respirator, eye protection); close contact can include caring for, living with, visiting or sharing a health care waiting area or room with a COVID-19 case

Considerations when assessing close contact include the duration of exposure (e.g., longer exposure time likely increases exposure risk) and the clinical symptoms of the person with COVID-19 (e.g., coughing likely increases exposure risk as does exposure to a severely ill patient). Special consideration should be given to those exposed in health care settings. See CDC’s Interim Healthcare Infection Prevention and Control Recommendations for Patients Under Investigation for 2019 Novel Coronavirus.
Prevention

The CDC recommends everyday preventive actions to help prevent the spread of respiratory viruses. These include regular hand washing, covering mouth and nose when coughing and sneezing, thoroughly cooking meat and eggs, and avoiding close contact with anyone showing symptoms of respiratory illness (such as coughing and sneezing).

Recommendations for senior living communities

Senior living communities should be vigilant about following infection control policies and procedures to minimize risk exposure from respiratory illnesses. Staff and residents should be reminded of, and observed for compliance to, standard precautions that apply to any respiratory and other contagious diseases — precautions such as 1) cover a cough, 2) use disposable tissue when sneezing, 3) frequent, thorough hand washing. Other infection control policies and procedures should address the use of personal protective equipment and isolation procedures.

1. Educate staff about the 2019-nCov and precautions suggested by the CDC.
2. Daily infection control rounds should be performed by the leadership team and/or appointed infection control champion.
3. Educate residents, family members, vendors and visitors about the 2019-nCov.
4. Educate residents, staff, family members and visitors about daily preventive actions.
5. Consider posting signs as reminders to others to follow respiratory hygiene practices, wash their hands and to not visit if they are ill.
6. Request that family members, visitors, vendors and staff who are identified with flu-like symptoms be excluded from being onsite until cleared to return.
7. Those with flu-like symptoms and a history of travel to/from China should refrain from visiting the community until a thorough clinical evaluation and medical clearance is obtained.
8. Conduct daily surveillance for acute respiratory illness among all residents, staff, vendors and visitors.
9. Ensure that housekeeping staff use Environmental Protection Agency (EPA) suggested disinfectants, cleaning methods and standard precautions.

Daily preventive actions

- Hand washing often with soap and water for at least 20 seconds. Use an alcohol-based hand sanitizer that contains at least 60% alcohol if soap and water are not available.
- Avoid touching eyes, nose and mouth with unwashed hands.
- Avoid close contact with people who are sick.
- Stay home when sick.
- Cover your cough or sneeze with a tissue, then throw the tissue in the trash.
- Clean and disinfect frequently touched objects and surfaces with the recommended disinfectant.
The activities listed above help prevent the spread of viruses that cause illnesses, such as influenza, which right now is a far greater risk to those who live in senior communities. All providers and all residents of such communities should be vaccinated and should be tested if they have symptoms (generally cough and fever). Remember, influenza in the elderly can present differently, i.e., behavioral changes, no fever, exacerbation of chronic respiratory or cardiac illness, malaise or weakness. Rapid influenza tests have a low sensitivity, so many who test negative but clinically have influenza will benefit from anti-viral therapy.

When there is a confirmed or suspected influenza outbreak (two or more individuals, residents and/or employees)

If one laboratory-confirmed influenza positive case is identified along with other cases of acute respiratory illness in a senior living community or a long-term care facility, an influenza outbreak might be occurring. Active surveillance for additional cases should be implemented as soon as possible once one case of laboratory-confirmed influenza is identified. When two cases of laboratory-confirmed influenza are identified within 72 hours of each other, the community or facility should immediately implement outbreak control measures.

Implementation of outbreak control measures can also be considered as soon as possible when one or more residents have acute respiratory illness with suspected influenza, and the results of influenza molecular tests are not available the same day of specimen collection. While unusual, an influenza outbreak can occur outside of the normal influenza season; therefore, testing for influenza viruses and other respiratory pathogens should also be performed during non-influenza season periods.

Consider the following additional measures to reduce transmission among residents and health care personnel:

- Have symptomatic residents stay in their own rooms as much as possible, including restricting them from common areas, and have their meals served in their rooms when possible.
- Limit the number of large group activities in the community and consider serving all meals in resident rooms if possible when the outbreak is widespread (involving multiple units of the community).
- Avoid new admissions or transfers to units with symptomatic residents.
- Limit visitation and exclude ill persons from visiting the community via posted notices. Consider restricting visitation by children during community outbreaks of influenza.
- Monitor health care 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.
- Restrict health care personnel movement from areas of the community having illness to areas not affected by the outbreak.
- Administer the current season’s influenza vaccine to unvaccinated residents and health care personnel as per current vaccination recommendations. For the latest information on influenza vaccination, see CDC’s seasonal influenza vaccination resources for health professionals page.

While the CDC considers COVID-19 a very serious public health threat, based on current information, the immediate health risk from COVID-19 to the general American public is rapidly evolving. The CDC is researching the virus and transmissibility, severity and other features associated with COVID-19. Investigations are ongoing and the CDC website should be sourced for updated information.

Resources

Influenza Virus: https://www.cdc.gov/flu/about/viruses