COLORADO
Department of Public Health & Environment

INTERIM Guidelines for Preparation and Response to Single Cases and Outbreaks of COVID-19 in Long-Term Care Settings

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Date of Update	Description of Update
03/25/2020	**Updates to symptom screening and case symptoms, reporting to public health, surveillance and monitoring, source control, testing, outbreak precautions, discontinuation of isolation, return of residents to the facility following hospitalization or new admission to the facility, return of HCP to work after suspected or confirmed COVID-19, outbreak resolution.**

Scope: The purpose of this document is to provide guidance to long-term care facilities (LTCFs) when a resident or healthcare personnel is suspected or confirmed to have COVID-19 and to provide recommendations to prevent transmission within the facility. These recommendations are specific for nursing homes, including skilled nursing facilities. Much of this information could also be applied in assisted living facilities. Guidance provided in this document is based on currently available information at the time it was drafted and is subject to change.

Background: A new respiratory disease, coronavirus-19 (COVID-19) is currently spreading globally and there have been instances of community spread within the United States. This disease is caused by the virus SARS-CoV-2. The Colorado Department of Public Health and Environment (CDPHE) is currently monitoring the situation closely. Updated case counts are available on the CDPHE website: Coronavirus Disease 2019 (COVID-19) in Colorado.

Residents of LTCFs, which are often older people and those with underlying health conditions, seem to be at especially high risk for developing serious illness associated with COVID-19. Healthcare workers and close contacts of people with COVID-19 are also at elevated risk for exposure. Respiratory illnesses have the potential to spread easily in these settings due to the communal nature of the environment.

Definition of Healthcare Personnel (HCP): HCP refers to all persons, paid and unpaid, working in healthcare settings engaged in resident care activities, including: resident assessment for triage, entering examination rooms or resident rooms to provide care or clean

and disinfect the environment, obtaining clinical specimens, handling soiled medical supplies or equipment, and coming in contact with potentially contaminated environmental surfaces.

Preparation: Steps that LTCFs can take to prepare for community spread of COVID-19 and to prevent introduction of COVID-19 into the facility include:

1. Review the facility emergency plan.
2. Establish relationships with key healthcare and public health partners.
3. Communicate about COVID-19 with your staff.
4. Communicate about COVID-19 with your residents.
5. Ensure proper use of recommended personal protective equipment (PPE).
6. Conduct an inventory of available PPE and ensure adequate supply of PPE.
7. Reinforce sick leave policies and restrict ill HCP from work.
8. Ensure supplies are available for hand hygiene and respiratory etiquette.
9. Restrict visitors according to public health order 20-20 and guidelines from the Centers for Medicare and Medicaid Services (CMS) and the Centers for Disease Control and Prevention (CDC).
10. Cancel group activities and communal dining.
11. Implement active screening of residents and HCP for symptoms and signs of infection (See Surveillance and Monitoring, below).
12. Ensure adequate supplies and procedures for environmental cleaning and disinfection.

Resources for preparation can be found here:

- Steps Healthcare Facilities Can Take Now to Prepare for Coronavirus Disease 2019 (COVID-19) (CDC).
- Preparing for COVID-19: Long-term Care Facilities, Nursing Homes (CDC).
- Notice of Public Health Order 20-20.
- Concept of Operations (CONOPS) for Coronavirus Disease (COVID-19) Personal Protection Equipment Shortage (CDPHE).

Response

Key Information about COVID-19

- **Agent:** SARS-CoV-2
- **Incubation Period:** Range 2 to 14 days
- **Transmission/Communicability:** The virus is thought to spread mainly from person-to-person.
    - Between people who are in close contact with one another (within about 6 feet),
    - Through respiratory droplets produced when an infected person coughs or sneezes.
- These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.

- It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the main way the virus spreads.

Case Definitions

- **Respiratory illness in LTCFs**: [Fever (>100 F)] OR [lower respiratory illness (new cough or shortness of breath)]

  **Note* When COVID-19 is detected in the surrounding community of the LTCF, a high index of suspicion should be maintained. The medical director or local public health agency might consider loosening the respiratory illness case definition to account for upper respiratory symptoms in an outbreak highly suspected of being due to COVID-19 in which residents have a broader array of symptoms or signs (see* Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19) (CDC) *for updated information on clinical presentation of COVID-19).*

- **Suspected COVID-19 outbreak**: two cases of respiratory illness, at least one in a resident, within a 1-week period without a positive test for COVID-19. Residents or staff with clinically relevant respiratory illness should be considered as suspect COVID-19 cases until the disease can be ruled out, even if other etiologies have been identified. We are still learning about the rates of potential co-infection with other respiratory pathogens among individuals with COVID-19.

- **Confirmed COVID-19 outbreak**: two cases of respiratory illness, at least one in a resident, within a 1-week period with at least one positive test for COVID-19.

Reporting to Public Health

Any suspected or confirmed case or outbreak of COVID-19 should immediately be reported to the local or state public health agency. To report, utilize the Outbreak Reporting Form for Long-Term Care Facilities. Send this form to your local public health agency OR to CDPHE by securely emailing a completed form to: HAIOutbreak@state.co.us. You may also contact your local public health agency or the Colorado Department of Public Health and Environment at 303-692-2700 (8:30 - 5:00, Monday - Friday) or 303-370-9395 (after-hours, holidays and weekends).

Surveillance and Monitoring

Surveillance for Respiratory Illness in Residents during COVID-19: Routinely monitor residents for symptoms (shortness of breath, new or change in cough, sore throat, rhinorrhea, myalgia or fatigue, headache, diarrhea, nausea or vomiting), temperature and other vital signs including pulse oximetry daily. Increase monitoring of all residents to twice daily if there is a suspected or confirmed COVID-19 outbreak in the facility.

CDPHE provides a basic tracking tool: Line List Template to Monitor Residents and Staff. Collection of additional variables may be recommended in the setting of a suspected or confirmed COVID-19 outbreak.

Residents with the following symptoms should be considered for potential COVID-19:

- Fever
- Cough
- Shortness of breath
- Symptoms of mild upper respiratory infection in the setting of a suspected or confirmed COVID-19 outbreak (sore throat, rhinorrhea, myalgia or fatigue, headache, diarrhea, nausea or vomiting) or signs of new hypoxemia

Residents should ***also*** be assessed for other etiologies (e.g. influenza, RSV, etc.) according to clinical suspicion. See Testing section below for more information.

Surveillance for Respiratory Illness in HCP during COVID-19:

- Screen all staff at the beginning of their shift for fever or respiratory symptoms (shortness of breath, new or change in cough, sore throat, rhinorrhea, myalgia or fatigue, headache, diarrhea, nausea or vomiting) and close contact with an ill household member.
    - Actively take their temperature and document absence of fever, shortness of breath, new or change in cough, sore throat, and other above symptoms.
    - Keep a record of other healthcare facilities where your staff are working (these staff may pose a higher risk) and ask about exposure to facilities with recognized COVID-19 cases.
- As part of routine practice, ask healthcare personnel (including consultant personnel) to regularly monitor themselves for fever and symptoms of respiratory infection.
- CDPHE provides a basic tracking tool: Line List Template to Monitor Residents and Staff. Collection of additional variables may be recommended in the setting of a suspected or confirmed COVID-19 outbreak.

Source Control/What to do when a resident with respiratory illness is identified

- Do not wait for confirmation of a diagnosis to implement infection control precautions.
- Place a facemask over the resident's nose and mouth until the resident can be properly isolated. In times of PPE shortages, consider the use of tissues or other barriers to cover the resident's mouth and nose. Ensure that residents have access to a trash receptacle to dispose of used tissues and a method for hand hygiene.
- Place the resident in a private room with the door closed. If roommates cannot be moved, ensure at least 6 feet separation between residents and utilize curtains or other physical dividers for seperation.

- Per CDC guidance, residents with known or suspected COVID-19 in the long-term care setting do not need to be placed into an airborne infection isolation room (AIIR) (Preparing for COVID-19: Long-term Care Facilities, Nursing Homes (CDC)).
- Only essential personnel should enter the room. Implement staffing policies to minimize the number of HCP who enter the room.
- If symptomatic residents need to leave their room (e.g., for medical care), the resident should wear a facemask or use tissues as source control when they are outside of their room or affected unit.
- Avoid transferring residents with symptoms of respiratory illness to unaffected units or other facilities unless medically necessary.

Source Control/What to do when a HCP with symptoms is identified

- Remind HCP to stay home when they are ill.
- If HCP develops a fever or symptoms of respiratory infection while at work, they should immediately put on a facemask, inform their supervisor, and leave the workplace. In times of PPE shortages, use tissues or other barriers to cover the HCP's mouth and nose. Ill staff should seek medical care if necessary (make sure to call ahead) and practice self-isolation at home.
- Consult occupational health/infection prevention or other appropriate administrative personnel on decisions about further evaluation and return to work. Consult public health as necessary.

Testing

Residents with respiratory illness should be tested for COVID-19. Residents should also be tested for influenza, RSV, and other respiratory viruses according to clinical suspicion and facility protocols.

Note that COVID-19 testing should not wait for results of other virus testing. In situations where the capacity for COVID-19 is limited and appropriate infection control measures for COVID-19 are in place, it may be reasonable to test for influenza or RSV first if there is a short turnaround time for test results. However, providers must also consider the possibility of coinfection with COVID-19.

COVID19 testing may be performed at a commercial laboratory or at the state public health laboratory if they meet current testing criteria.

Facilities should submit samples for influenza, RSV, and other respiratory viruses via their usual testing protocols (not to CDPHE).

Staff ill with respiratory symptoms should also be tested for COVID-19 and influenza, at a minimum, through their usual healthcare provider or alternate testing site.

During an investigation of a confirmed COVID-19 outbreak, once two or more residents on a unit have tested positive for COVID-19, then additional COVID-19 testing on the unit may be unnecessary, and all residents on the unit with compatible symptoms should be cared for as if COVID-19 positive. COVID-19 testing should be conducted on other units to establish the extent of COVID-19 spread. HCP with symptoms of COVID-19 should be prioritized for testing. Postmortem testing for COVID-19 should be completed following undiagnosed deaths suspected to be due to COVID-19.

Specimen Collection

- Follow guidance from CDC and CDPHE regarding which specimens to obtain for COVID-19 testing (e.g., nasopharyngeal or lower respiratory specimens).
    - Evaluating and Testing Persons for Coronavirus Disease 2019 (COVID-19) (CDC)
    - Interim Guidance for Collection and Submission of Postmortem Specimens from Deceased Persons Under Investigation (PUI) for COVID-19, February 2020 (CDC)
    - COVID-19 resources for health care providers and local public health agencies (CDPHE)
- When collecting diagnostic respiratory specimens (e.g., nasopharyngeal swab) from a possible COVID-19 patient, CDC recommends:
    - Specimen collection should be performed in a private area, such as an examination room with the door closed.
    - HCP in the room should wear an N-95 or higher-level respirator (or facemask if a respirator is not available), eye protection, gloves, and a gown.
    - The number of HCP present during the procedure should be limited to only those essential for patient care and procedure support. Visitors and roommates should not be present for specimen collection.
- In the LTCF setting, **consult with public health as needed** and consider the following options for appropriate specimen collection activities:
    - Identify and designate an office space or conference room, for COVID-19 specimen collection. Consider designating this room for this purpose for an extended period of time.
    - Collect the specimen outdoors (if weather allows and is feasible given resident status).
    - Collect the specimen in the resident's room with the door closed.
        - If the resident has roommates, consider moving to other locations while the specimen is being collected. Do not allow residents or staff back in the room until a sufficient time has elapsed for enough air changes to remove potentially infectious particles has occurred (Airborne Contaminant Removal (CDC))
        - If roommates cannot be moved, ensure at least 6 feet separation between residents, and use curtains or other physical dividers for seperation.

    - If recommended PPE is not available, consider alternate sites of sample collection or use the highest level of PPE available in consultation with public health.
- Clean and disinfect procedure room surfaces promptly in accordance with CDC guidance (**Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings (CDC)**) .

Infection control (for suspected or confirmed case/outbreak)

Note: Guidelines for infection prevention and control of COVID-19 may change as we learn more about the disease. The guidance provided below should be used as a guide.

For the most up-to-date information, visit CDC's website for Infection Control Guidance (Infection Control (CDC)) and Strategies to Prevent Spread of COVID-19 in LTCFs: Healthcare Facilities (CDC).

See Outbreak Investigation Infection Prevention Checklist for Long-Term Care Facilities for a checklist of infection prevention measures to implement during a suspected or confirmed outbreak.

- **Isolation:** Residents with respiratory illness should be confined to their rooms with the door to the room closed whenever possible while symptomatic.
- **Quarantine:** In the event that a resident is exposed to another resident who is a confirmed positive case, quarantine of up to 14 days is recommended.
- **Standard and transmission-based precautions.** In general, when caring for residents with undiagnosed respiratory illness, use Standard Precautions, Contact Precautions, and Droplet Precautions with eye protection unless the suspected diagnosis requires Airborne Precautions (e.g. tuberculosis) or aerosol-generating procedures (AGPs) are expected to be performed.
- **Aerosol generating procedures (AGPs):** Some procedures performed on a patient with known or suspected COVD-19 could generate infectious aerosols (e.g., sputum induction, open suctioning of airways). If performed, LTCFs should follow CDC guidance on precautions to take when performing AGPs: Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings (CDC). There is separate guidance for specimen collection as described above.
- **Tracking contacts:** Facilities should keep a log of all persons who care for or enter the rooms or care area of residents with COVID19. CDPHE has developed a HCP Tracking Form to add in this process: Colorado Health Care Personnel Tracking Form.
- **HCP Exposures.** CDC has interim guidance available on How to Conduct a Risk Assessment and Public Health Management of Public Health Personnel with Potential Exposures in A Healthcare Setting to Patients with COVID-19: Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential

Exposure in a Healthcare Setting to Patients with Coronavirus Disease (COVID-19) (CDC). **Exposed HCP should be notified and undergo risk assessment prior to continuing work in the facility in which the exposure occurred or any other healthcare facility.**

- **Environmental Infection Control.**
    - Ensure frequent daily cleaning with an EPA-registered, hospital-grade disinfectant of commonly touched environmental surfaces to decrease environmental contamination. Refer to List N on the EPA website for EPA-registered disinfectants that have qualified under EPA's emerging viral pathogens program for use against SARS-CoV-2.
    - Use dedicated or disposable noncritical resident-care equipment (e.g., blood pressure cuffs). If equipment will be used for more than one resident, clean and disinfect such equipment before use on another resident according to the manufacturer's instructions.
    - Once the patient has been discharged or transferred, HCP, including environmental services personnel, should refrain from entering the vacated room until sufficient time has elapsed for enough air changes to remove potentially infectious particles (e.g., a minimum of 2 hours; more information on clearance rates under differing ventilation conditions is available). After this time has elapsed, the room should undergo appropriate cleaning and surface disinfection before it is returned to routine use.

If a suspect or confirmed COVID-19 outbreak is identified in a LTCF (using the definitions above) the following precautions should also be implemented in accordance with CDC guidelines:

- **Cohorting of Residents and Staff**: Implement protocols for cohorting ill residents with designated HCP. Contact public health for guidance on cohorting and consult the 'Patient Placement' section in the following guidance document: Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings (CDC).
- **Resident Activities and Resident Screening**:
    - Encourage residents to remain in their room. If there are cases in the facility, restrict residents (to the extent possible) to their rooms except for medically necessary purposes. If they leave their room, residents should wear a facemask, perform hand hygiene, limit their movement in the facility, and perform social distancing (stay at least 6 feet away from others).
    - Cancel group field trips and activities, as well as communal dining.
    - Screen residents for fever or respiratory symptoms (shortness of breath, new or change in cough, sore throat, rhinorrhea, myalgia or fatigue, headache, diarrhea, nausea or vomiting) and monitor vital signs and pulse oximetry twice daily.
- **Visitor Restriction**:
    - Restrict all visitors to the facility (Notice of Public Health Order 20-20). Exceptions might be considered in limited circumstances (e.g., end of life

event). In those circumstances, the visitor should wear PPE as recommended by Public Health Order 20-20 and restrict their visit to the resident's room.

- **Healthcare Personnel:**
  - Implement universal use of facemasks for HCP while in the facility.
  - Implement contingency capacity strategies for PPE use (Strategies for Optimizing the Supply of PPE (CDC).
- **New Admissions:** The facility should halt new admissions until further consultation with public health.

Case Management

- **Management in facility:** Residents with milder illness may be treated in the facility if felt to be medically appropriate by their healthcare provider. For more information about clinical management and treatment, see: Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19) (CDC).
- **Acute care management:** Transfer of residents to an acute care facility could be considered in the following circumstances:
  - If a resident requires a higher level of care due to medical necessity.
  - If the LTCF is not able to implement or maintain recommended precautions to appropriately care for and protect other residents, transfer to another facility should be considered in consultation with public health and the accepting facility (See Return to the Facility After Hospitalization, below).
- **Transport:** When transporting residents who require hospitalization, residents should wear a facemask over their nose and mouth to contain secretions. **Ensure transport personnel and the receiving hospital are informed of COVID-19 suspicion or diagnosis before arrival. This will allow the transport service and healthcare facility the opportunity to properly prepare.**

Discontinuation of Isolation

- CDC recommends a test-based strategy for discontinuation of transmission-based precautions: Interim Guidance for Discontinuation of Transmission-Based Precautions and Disposition of Hospitalized Patients with COVID-19 (CDC).
  - Resolution of fever without the use of fever-reducing medications and
  - Improvement in respiratory symptoms (e.g., cough, shortness of breath), and
  - Negative results of an FDA Emergency Use Authorized COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least two consecutive nasopharyngeal swab specimens collected ≥24 hours apart (total of two negative specimens)
- When testing is not available, CDPHE recommends a non-test-based strategy. Standard, Droplet, and Contact Precautions, including eye protection, should be maintained on residents with respiratory symptoms, regardless of testing results, until the following criteria are met:
  - At least 3 days (72 hours) after recovery defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms (e.g., cough, shortness of breath); AND

    - At least 10 days have passed since symptoms first appeared.
    - Facilities may consult public health on a case by case basis as necessary for guidance regarding special populations (e.g., severely immunocompromised persons).
- Additionally, all residents should remain in their rooms, and staff and essential visitors should practice universal masking until the outbreak is resolved, defined as 14 days after the onset of symptoms (fever or respiratory symptoms) of the last case (in residents and staff). This might be applied to an affected unit or the entire facility.
- These recommendations assume adequate supply of PPE. PPE sparing strategies, including extended use of facemask and eye protection, may apply. In selected situations, the isolation criteria might be modified by public health authorities.

Return to the Facility after Hospitalization or New Admission to the Facility

- Residents with a history of COVID-19 can be admitted to the facility if transmission-based precautions have been discontinued in the hospital based on the above test-based or non-test-based strategies.
    - If the resident's symptoms are resolved, no further restrictions are necessary unless resident activities are restricted due to an ongoing potential or confirmed outbreak.
    - If the resident has persistent symptoms from COVID-19 (e.g., persistent cough), they should be placed in a single room, and restricted to their room.
- Residents with a history of COVID-19 that have not met criteria for discontinuation of transmission-based precautions should go to a facility with adequate personal protective equipment supplies and an ability to adhere to infection prevention and control recommendations for the care of COVID-19 patients. Preferably, the patient would be placed at a facility that has already cared for COVID-19 cases, in a specific unit designated to care for COVID-19 residents. Consultation with public health is advised.
- Long-term care facilities should admit any individuals that they would normally admit to their facility, including individuals from hospitals where a case of COVID-19 was/is present. CMS has additional guidance: Guidance for Infection Control and Prevention of Coronavirus Disease 2019(COVID-19) in nursing homes (CMS).
- If the facility has an ongoing suspected or confirmed COVID-19 outbreak, public health should be consulted for best recommendations for admission to the facility.

Return of HCP to Work after Confirmed or Suspected COVID-19

- See Return to Work Criteria for HCP with Confirmed or Suspected COVID-19 (CDC) for test-based and non-test-based strategies for determining when HCP may return to work. Note, that if a non-test-based strategy is used, CDPHE recommends that at least 3 days (72 hours) have passed since recovery defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms (e.g., cough, shortness of breath); and, at least *10 days* have passed since symptoms first appeared. The more stringent criteria recommended by CDPHE are based on evidence of cases of prolonged shedding of virus, and may need to be modified in consultation with public health in settings of staffing shortages. (Seven days could be considered in settings with a healthcare worker shortage; preliminary data suggest most shedding of live virus ends around 7 days.)

- After returning to work, HCP should follow return to work practices and work restrictions as outlined by CDC (see Return to Work Criteria link, above).

Outbreak Resolution

- Resolution is defined as 14 days after the onset of symptoms (fever or respiratory symptoms) of the last case (in residents and staff), with infection prevention and control precautions in place during that time.
- Consideration can be given to unit-specific outbreak resolution in consultation with public health.