COLORADO
Department of Public Health & Environment

Coronavirus Disease 2019

COVID-19

INTERIM Expanded Testing & Cohorting Public Health Strategy to Prevent SARS-CoV-2 Transmission in Nursing Homes, Skilled-Nursing Facilities, and Assisted Living Residences

Background

SARS-CoV-2 can spread rapidly within congregate settings, including long-term care facilities (LTCFs). Because asymptomatic or presymptomatic residents likely play an important role in transmission in this high risk population, additional prevention measures merit consideration, including using expanded testing to guide isolation and cohorting strategies. Testing large numbers of residents and staff with rapid turn-around times may enable strategies to cohort residents in locations designated for care of residents with SARS-CoV-2 infection, either in separate spaces within individual LTCFs or in separate facilities.

This document describes considerations for testing to impact cohorting decisions. It assumes CDPHE guidance and CDC guidance for infection prevention in LTCFs has been implemented. LTCFs include nursing homes, skilled-nursing facilities, and assisted living residences.

Goals

- Test residents and staff with unknown SAR-CoV-2 infection status, irrespective of symptoms, to inform resident location and staffing
- Improve COVID-19 outbreak response in LTCFs to prevent transmission in LTCFs and thereby prevent some cases and deaths
- Implement strategies for cohorting residents by COVID-19 status to prevent transmission and conserve PPE
- Decrease strain on local healthcare systems
- Strengthen relationships between LTCFs and local/state public health agencies by increasing capacity and access to testing of residents and staff and by providing guidance and recommendations based on test results

Advantages of Expanded Testing within LTCFs

- Cohorting residents within a facility is difficult without expanded testing. Residents with illness and unknown COVID-19 status should not be cohorted with COVID-19-positive residents. Without expanded testing, LTCFs might implement cohorting strategies that could increase transmission within the

facility when incorrect assumptions are made (e.g., residents with symptoms which might or might not be due to COVID-19 cohorted with COVID-19-positive residents).

- Residents and staff with asymptomatic and presymptomatic SARS-CoV-2 infection, who likely play a significant role in transmission, cannot be identified without testing.
- Testing can be delayed when performed through commercial testing labs, impacting cohorting implementation. Turnaround time can be faster and results more reliably reported when done by the Colorado Public Health Laboratory.

Basic Minimum Requirements for Performing Expanded Testing at a Facility

- ☑ Capacity for testing can be identified, with fast (1-2 days) turnaround time for results.
- ☑ Facility has implemented best infection control practices according to CDPHE guidance and checklist, as well as CDC guidance.
- ☑ The facility is willing to work closely with public health to establish a plan for resident and staff changes based on test results.
- ☑ The facility has a plan for safely cohorting residents based on test results
- ☑ If designated COVID-19 care units are being considered, the facility has the capacity to designate staff (consistently across multiple shifts), PPE, and dedicated equipment with complete separation from non-COVID units

Testing Strategy by Facility Type and COVID-19 Outbreak Status

Scenario	Testing Strategy

Scenario A: Nursing homes or skilled nursing facilities with newly-identified COVID-19 in staff or residents, or with a confirmed or suspected COVID-19 outbreak	• Initial testing: Test all residents within the facility, regardless of symptoms, and all staff that interact with residents
	• Additional testing: Residents or staff who develop symptoms consistent with COVID-19 should be tested at the onset of symptoms
	• Repeat testing:
	  ○ Residents and staff that tested negative in round 1: test weekly; if positive results are received during rounds of testing, consult CDPHE HAI SMEs; consider continuing until two rounds of negative testing
	  ○ If testing capacity is limited and unable to test all residents and staff, consider focusing additional rounds of testing on close contacts to a known case (e.g., roommate)
	• If facility-wide initial testing is not feasible due to limited capacity, could consider testing only residents within affected units and staff that interact with those residents (not the preferred option)
	• If repeat testing rounds are not feasible for residents and staff who previously tested negative due to limited capacity, and ongoing transmission is suspected after 14 days following round of initial testing, consider testing at 14 days of all residents and staff who previously tested negative
	• Consider testing residents that leave the facility for ambulatory medical care (e.g., dialysis, outpatient clinic, procedure): test weekly until 14 days past exposure (if ongoing exposure such as dialysis, can consider continuous weekly testing if testing capacity allows)

	• For test-based and non-test-based strategies for removal of residents from isolation or from a designated COVID-19 care unit, refer to current CDPHE guidance
Scenario B: Nursing homes or skilled nursing facilities with no known illness consistent with COVID-19 in staff or residents	• Testing of residents and staff might occur through CDPHE Strike Force process • Refer to Strike Force protocols

Scenario C: Large assisted living residences (>20 beds) with newly-identified COVID-19 in staff or residents, or with a confirmed or suspected COVID-19 outbreak	• Initial testing: Test all residents within the facility, regardless of symptoms, and all staff that interact with residents
	• Additional testing: Residents or staff who develop symptoms consistent with COVID-19 should be tested at the onset of symptoms
	• Repeat testing:
	  ○ Residents and staff that tested negative in round 1: test weekly; if positive results are received during rounds of testing, consult CDPHE HAI SMEs; consider continuing until two rounds of negative testing
	  ○ If testing capacity is limited and unable to test all residents and staff, consider focusing additional rounds of testing on close contacts to a known case (e.g., roommate)
	• If facility-wide initial testing is not feasible due to limited capacity, could consider testing only residents within affected units and staff that interact with those residents (not the preferred option)
	• If repeat testing rounds are not feasible for residents and staff who previously tested negative due to limited capacity, and ongoing transmission is suspected after 14 days following round of initial testing, consider testing at 14 days of all residents and staff who previously tested negative
	• Consider testing residents that leave the facility for ambulatory medical care (e.g., dialysis, outpatient clinic, procedure): test weekly until 14 days past exposure (if ongoing exposure such as dialysis, can consider continuous weekly testing if testing capacity allows)
	• For test-based and non-test-based strategies for removal of residents from isolation or from a designated COVID-19 care unit, refer to current CDPHE guidance

Scenario D: Small assisted living residences (<= 20 beds) with with newly-identified COVID-19 in staff or residents, or with a confirmed or suspected COVID-19 outbreak	• Initial testing: Test all residents within the facility, regardless of symptoms, and all staff that interact with residents • Additional testing: Residents or staff who develop symptoms consistent with COVID-19 should be tested at the onset of symptoms • Repeat testing: Residents and staff that tested negative in round 1: test weekly; if positive results are received during rounds of testing, consult CDPHE HAI SMEs; consider continuing until two rounds of negative testing • If repeat testing rounds are not feasible for residents and staff who previously tested negative due to limited capacity, and ongoing transmission is suspected after 14 days following round of initial testing, consider testing at 14 days of all residents and staff who previously tested negative • Consider testing residents that leave the facility for ambulatory medical care (e.g., dialysis, outpatient clinic, procedure): test weekly until 14 days past exposure (if ongoing exposure such as dialysis, consider continuous weekly

	testing if testing capacity allows) • For test-based and non-test-based strategies for removal of residents from isolation, refer to current CDPHE guidance
Scenario E: Assisted living residences with no known illness that might be COVID-19 in staff or residents	• Testing of residents and staff might occur through Strike Force process • Refer to Strike Force protocols

Strategies for Cohorting Residents and Designating Staff

- General considerations
  - Cohorting refers to moving residents according to COVID-19 infection status. This might include establishing a specific area for COVID-19-positive residents (designated COVID-19 care unit), moving residents between rooms, or establishing new roommate pairs. Cohorting residents also requires designating staff, with complete separation between staff working in designated COVID-19 care units and non-COVID units (consistently across multiple shifts). See CDC Responding to Coronavirus (COVID-19) in Nursing Homes for additional considerations for the creation of designated COVID-19 care units.
  - For considerations for the placement of new admissions or readmissions to a facility, see CDC Responding to Coronavirus (COVID-19) in Nursing Homes.
  - At any facility there are likely 4 categories of residents, which in some cases cannot be distinguished, and should not be cohorted across the categories. These categories include: 1) COVID-19-positive, 2) symptomatic and status unknown (including pending test or negative test with high clinical suspicion), 3) exposed (e.g., roommate of a confirmed case), 4) unexposed. Considerations for these possible populations can help inform decision-making around resident movement and staff assignments. In general, we will not be able to identify residents who have truly been exposed, and those that are truly unexposed, but it is important to recognize that an asymptomatic resident might fall into either category; this will prevent inappropriate cohorting (e.g., placing two asymptomatic residents in a new room together).
  - It is also important to recognize that asymptomatic or pre-symptomatic persons who are infected with SARS-CoV-2 can still transmit the virus. Identification of asymptomatic/pre-symptomatic infections via testing can help with appropriate cohorting.
  - Movement of residents should be done with caution, taking care not to increase possible exposures by moving residents around the facility among wings or units. Complex patterns of resident movement can increase the possibility of transmission if additional staff or residents are exposed. Consider minimizing resident movements.
  - When cohorting residents or staff, the smallest facility designation possible should be used (e.g., hall, wing, unit), depending on the facility layout. This is referred to here as a unit (but could be a hall, wing, unit, neighborhood, etc.).
  - When public health is making recommendations to a facility, public health should have access to a facility map to guide specific recommendations for patient movement.
  - To establish a designated COVID-19 care unit, only residents with confirmed COVID-19 should be placed in the unit.

- Facilities should use separate staff (including environmental, dietary, maintenance, etc.) for COVID-19-positive units. The goal is to ensure that staff working in the COVID-19-positive units do not interact with other staff or residents from other units. Staff assigned to a particular unit should be assigned consistently across multiple shifts.

- Considerations for moving residents who test positive for COVID-19:
  - Residents who test positive, regardless of symptoms, should be moved to a designated COVID-19 care unit if the facility has established one. If no designated COVID-19 care unit has been established, COVID-19 positive residents should be separated from other roommates using the considerations below.
  - Residents who test positive and have a roommate whose COVID-19 status is negative or unknown can be moved to a private room in the same unit; alternatively the roommate can be moved to a private room in the same unit (using the smallest facility designation possible). If a designated COVID-19 care unit is available, the resident testing positive can be moved there.
  - Consideration could be given, if no other options available, to keeping a resident who tests positive with a roommate whose status is unknown or negative if physical separation of more than 6 feet can be maintained (privacy curtain or other physical barrier), gowns and gloves are changed between each resident, and housekeeping treats each side of the room as a separate environment. This option is less preferable than moving the COVID-19-positive resident to a designated COVID-19 care unit or a private room within the same unit.
  - In general, moving a COVID-19-positive resident to a private room on another wing or unit is not recommended (unless moving to a designated COVID-19 care unit) due to the potential risk to the new unit. An exception might be when the receiving wing or unit already has cases of COVID-19.
  - Two residents with confirmed COVID-19 can be placed in the same room as long as other pathogens requiring isolation (e.g., C. difficile) are not present.

- Considerations for moving residents with symptoms that might be consistent with COVID-19:
  - Residents with symptoms consistent with COVID-19 but with negative or unknown COVID status should not be moved to be cohorted with COVID-19-positive residents. Residents with suspected COVID-19 should not be moved to a designated COVID-19 care unit.
  - A resident with symptoms that might be consistent with COVID-19 could be moved to a private room in the same unit if there is a need to separate from an asymptomatic roommate.
  - Two residents with suspected COVID-19 should not be moved to the same room; when the diagnosis is unclear, this might increase exposure if only one resident has COVID-19.
  - Consideration could be given to keeping a resident who has symptoms consistent with COVID-19 with a roommate without symptoms when testing results are imminent, if a physical separation of more than 6 feet can be maintained (privacy curtain or other physical barrier), gowns and gloves are changed between each resident, and housekeeping treats each side of the room as a separate environment. This option is less preferable than moving the symptomatic resident to a private room within the same wing or unit. Consideration should be given to minimizing the number of resident movements.
  - In general, moving a resident with symptoms consistent with COVID-19 to a private room on another wing or unit is not recommended due to the potential risk to the new unit.
  - If considering the creation of an observation unit for residents that develop symptoms whose COVID-19 status is unknown (see CDC guidance and CMS requirements), the following should be considered:
    - The unit should be separate from other residents in the facility and should not be the same as a designated COVID-19 care unit;
    - All rooms on the unit should house only a single resident;

        - Consider exposed residents (e.g., roommate of a resident who is COVID-19-positive) and newly admitted residents to be two other distinct populations and do not move these residents to this unit for cohorting purposes;
        - Residents with symptoms suspicious for COVID-19 should be tested for COVID-19 according to current guidance;
        - Follow CDC guidance for transmission-based precautions and discontinuation of isolation.
    - In general, creating a observation unit for residents with symptoms should be approached with caution for the following reasons: (1) residents might not have the same etiologies, creating the possibility of increased transmission among this population when cohorted; (2) moving residents to a symptomatic unit, then moving them to another designated COVID-19 care unit if positive can create complications due to increasing the movement of residents; (3) moving residents to a symptomatic unit, then moving them back into the general part of the facility if they test negative for COVID-19 can result in increased transmission if (a) the resident was exposed to undiagnosed COVID-19-positive residents while in the symptomatic unit, or (b) the test was falsely negative.

- Considerations for moving residents who might be exposed (e.g., roommate of a resident who is positive for COVID-19):
    - A resident who might be exposed should not be moved to another unit.
    - Two residents who are both considered to be exposed should not be moved to the same room; this can increase exposure and possible transmission if one resident develops infection and the other does not.
    - Residents who might be exposed should not be cohorted with COVID-19-positive residents, nor with symptomatic residents.
    - Residents who might be exposed should not share rooms with other residents unless they remain asymptomatic or have tested negative 14 days after their last exposure.

- Considerations for moving residents who test negative for COVID-19:
    - Maintain heightened awareness of any symptoms that might be consistent with COVID-19 given high risk of transmission due to close contact.
    - Recognize that residents might test negative during their incubation period, and later develop disease.
    - Consideration should be given to clinical suspicion for COVID-19 and epidemiological information. A resident with compatible symptoms in the setting of a facility outbreak and a negative test is considered a probable case. For infection control purposes, they should be maintained in isolation.

- Considerations for moving residents out of a unit in order to establish a designated COVID-19 care unit:
    - All residents should be moved out of the designated COVID-19 care unit prior to moving residents who are COVID-19 positive into the unit, except residents who are staying in the unit and are already positive. There might be exceptions to this if there are physical barriers and staff separation betweenCOVID-19 positive residents and those not known to be infected with COVID-19.
    - When moving residents out of the unit prior to establishing a designated COVID-19 care unit, consider any symptoms and exposures when determining where they might be placed.
    - If there is a group of residents that needs to be moved off of the unit that will be established as the designated COVID-19 care unit, consider moving these residents together, maintaining roommate pairs, if possible.
    - If residents are admitted to the designated COVID-19 care unit from outside the facility, consider that the facility might need enough space to move residents from other units in their facility that test positive in the future.

- Considerations for removing residents from designated COVID-19 care units
    - Follow established guidance for removal from isolation and moving residents back to the main part of the facility.