Nursing home residents are at high risk for infection, serious illness, and death from COVID-19. Testing for SARS-CoV-2, the virus that causes COVID-19, in respiratory specimens can detect current infections (referred to here as *viral testing*) among residents in nursing homes. Viral testing of residents in nursing homes, with authorized nucleic acid or antigen detection assays, is an important addition to other *infection prevention and control* (IPC) recommendations aimed at preventing SARS-CoV-2 from entering nursing homes, detecting cases quickly, and stopping transmission. This guideline is based on currently available information about COVID-19 and will be refined and updated as more information becomes available.

Testing conducted at nursing homes should be implemented *in addition to recommended IPC measures*. Facilities should have a plan for testing residents for SARS-CoV-2. Additional information about the components of the testing plan are available in the CDC guidance titled *Preparing for COVID-19 in Nursing Homes*.

Testing practices should aim for rapid turnaround times (e.g., less than 24 hours) in order to facilitate effective interventions. Testing the same resident more than once in a 24-hour period is not recommended. Antibody (serologic) test results generally should not be used as the sole basis to diagnose an active SARS-CoV-2 infection and should not be used to inform IPC actions.
While this guidance focuses on testing in nursing homes, several of the recommendations such as testing residents with signs or symptoms of COVID-19 and testing asymptomatic close contacts should also be applied to other long-term care facilities (e.g., assisted living facilities, intermediate care facilities for individuals with intellectual disabilities, institutions for mental disease, and psychiatric residential treatment facilities).

For additional guidance addressing other non-healthcare settings, refer to the CDC guidance addressing Communities, Schools, Workplaces and Events. Guidance for testing healthcare personnel (HCP) is available in the Interim Guidance on Testing Healthcare Personnel for SARS-CoV-2.

Diagnostic Testing

Testing residents with signs or symptoms of COVID-19.

- At least daily, take the temperature of all residents and ask them if they have any COVID-19 symptoms. Perform viral testing of any resident who has signs or symptoms of COVID-19.
  - Clinicians should use their judgment to determine if a resident has signs or symptoms consistent with COVID-19 and whether the resident should be tested. Individuals with COVID-19 may not show common symptoms such as fever or respiratory symptoms. Some may present with only mild symptoms or other less common symptoms.
  - Clinicians are encouraged to consider testing for other causes of respiratory illness, such as influenza, in addition to testing for SARS-CoV-2.

Testing asymptomatic residents with known or suspected exposure to an individual infected with SARS-CoV-2, including close and expanded contacts (e.g., there is an outbreak in the facility).

- Perform expanded viral testing of all residents in the nursing home if there is an outbreak in the facility (i.e., a new SARS-CoV-2 infection in any HCP or any nursing home-onset SARS-CoV-2 infection in a resident).
  - A single new case of SARS-CoV-2 infection in any HCP or a nursing home-onset SARS-CoV-2 infection in a resident should be considered an outbreak. When one case is detected in a nursing home, there are often other residents and HCP who are infected with SARS-CoV-2 who can continue to spread the infection, even if they are asymptomatic. Performing viral testing of all residents as soon as there is a new confirmed case in the facility will identify infected residents quickly, in order to assist in their clinical management and allow rapid implementation of IPC interventions (e.g., isolation, cohorting, use of personal protective equipment) to prevent SARS-CoV-2 transmission.
  - When undertaking facility-wide viral testing, facility leadership should expect to identify multiple asymptomatic and pre-symptomatic residents with SARS-CoV-2 infection and be prepared to cohort residents. See Public Health Response to COVID-19 in Nursing Homes for more details.
  - If viral testing capacity is limited, CDC suggests first directing testing to residents who are close contacts (e.g., on the same unit or floor of a new confirmed case or cared for by infected HCP).
  - See Considerations for Performing Facility-wide SARS-CoV-2 Testing in Nursing Homes for additional details.
Initial (baseline) testing of asymptomatic residents without known or suspected exposure to an individual infected with SARS-CoV-2 is part of the recommended reopening process.

- Perform initial viral testing of each resident in a nursing home as part of the recommended reopening process.
  - In any nursing home, initial viral testing of each resident (who is not known to have previously been diagnosed with COVID-19) is recommended because of the high likelihood of exposure during a pandemic, transmissibility of SARS-CoV-2, and the risk of complications among residents following infection.
  - The results of viral testing inform care decisions, infection control interventions, and placement decisions (e.g., cohorting decisions) relevant to that resident.

Testing to determine resolution of infection.

- A test-based strategy, which requires serial tests and improvement of symptoms, could be considered for discontinuing Transmission-Based Precautions earlier than the symptom-based strategy. However, in most cases, the test-based strategy results in prolonged isolation of residents who continue to shed detectable SARS-CoV-2 RNA but are no longer infectious. A test-based strategy could also be considered for some residents (e.g., those who are severely immunocompromised) in consultation with local infectious diseases experts if concerns exist for the resident being infectious for more than 20 days. In all other circumstances, the symptom-based strategy should be used to determine when to discontinue Transmission-Based Precautions.

Repeat Testing in Coordination with the Health Department

Non-diagnostic testing of asymptomatic residents without known or suspected exposure to an individual infected with SARS-CoV-2 (apart from the initial testing referenced above).

- After initially performing viral testing of all residents in response to an outbreak, CDC recommends repeat testing to ensure there are no new infections among residents and HCP and that transmission has been terminated as described below. Repeat testing should be coordinated with the local, territorial, or state health department.
- Continue repeat viral testing of all previously negative residents, generally every 3 days to 7 days, until the testing identifies no new cases of SARS-CoV-2 infection among residents or HCP for a period of at least 14 days since the most recent positive result. This follow-up viral testing can assist in the clinical management of infected residents and in the implementation of infection control interventions to prevent SARS-CoV-2 transmission.
  - If viral test capacity is limited, CDC suggests directing repeat rounds of testing to residents who leave and return to the facility (e.g., for outpatient dialysis) or have known exposure to a case (e.g., roommates of cases or those cared for by a HCP with confirmed SARS-CoV-2 infection). For large facilities with limited viral test capacity, testing only residents on affected units could be considered, especially if facility-wide repeat viral testing demonstrates no transmission beyond a limited number of units.
 Definitions

- **Healthcare personnel (HCP):** HCP include, but are not limited to, emergency medical service personnel, nurses, nursing assistants, physicians, technicians, therapists, phlebotomists, pharmacists, feeding assistants, students and trainees, contractual HCP not employed by the healthcare facility, and persons not directly involved in patient care but who could be exposed to infectious agents that can be transmitted in the healthcare setting (e.g., clerical, dietary, environmental services, laundry, security, engineering and facilities management, administrative, billing, and volunteer personnel). For this guidance, HCP does not include clinical laboratory personnel.

- **Nursing home-onset SARS-CoV-2 infections** refers to SARS-CoV-2 infections that originated in the nursing home. It does not refer to the following:
  - Residents who were known to have COVID-19 on admission to the facility and were placed into appropriate Transmission-Based Precautions to prevent transmission to others in the facility.
  - Residents who were placed into Transmission-Based Precautions on admission and developed SARS-CoV-2 infection within 14 days after admission.

Page last reviewed: July 17, 2020
Content source: National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases