# COVID-19 Clinical Workflows for Nursing Homes

## All Staff, All Times:

In the elderly, initial symptoms of acute infections are often non-specific. All staff should continue to use the Stop and Watch tool and notify the nurse of any changes in a resident. Additionally, all staff observing a resident with specific symptoms of respiratory infection (runny nose, sneeze, cough, sore throat, trouble breathing, fever) will notify the nurse immediately. The nurse should also be notified of any residents who do not have symptoms but report being in contact with someone who has developed a respiratory illness or fever.

## Clinical Staff, All times:

Observations & Considerations for patients with a change in condition:

* If the resident is exhibiting respiratory signs or symptoms, keep the door to the room closed, implement **Contact** & **Droplet** precautions, and place a **medical mask on the resident** unless the resident is unable to tolerate the mask
* Obtain vital signs
* Fingerstick glucose (residents with diabetes)

### General: Chills, fatigue, loss of appetite, muscle aches

### Head: Runny nose, sore throat, headache, changes in the sense of smell or taste

* Respiratory: **New cough**, **abnormal lung sounds, Accessory muscle breathing, pursed-lip breathing, Respiratory distress**
* GI: **Nausea, vomiting, diarrhea, abdominal pain**, constipation, heartburn, abdominal distention or tenderness, rebound tenderness, bowel sounds
* **Acute mental status change**
* **Not eating or drinking as much as usual**
* Fainting, dizziness or lightheadedness when standing up
* Acute decline in ADL abilities
* Thirst, signs of dehydration
* Cardiovascular: Chest pain, new irregular pulse, cyanosis, mottling, edema
* Neurologic changes: consciousness/alertness, orientation, weakness, gait changes (unsteadiness, loss of coordination or balance)
* Very low urinary output (<30cc/hr)
* Skin: sweats (diaphoresis), cold/clammy/pale skin; any new skin condition, i.e., bruising (including potential head trauma), **rash, red fingers or toes**, infection/cellulitis

**Nurse** to notify provider immediately if the resident is exhibiting the bolded potential COVID-19 symptoms; for other changes in condition, follow the guidance at [www.ssesbar.org.](http://www.ssesbar.org/)

**Provider** is to determine if findings potentially represent COVID-19 Disease, regardless of vaccination status.

* + Assess for symptoms and signs of viral illness as outlined in *UpToDate* or similar reference
  + **Notify nursing immediately of any resident suspected to have COVID-19 or diagnosed with COVID-19**
  + If available, order rapid antigen or rapid PCR testing. Note: A negative rapid antigen test does not rule out COVID-19.
  + Order Nasopharyngeal PCR COVID-19 and any other clinically appropriate viral testing.
    - Before discontinuing precautions, a second consecutive negative nasopharyngeal PCR test collected greater than or equal to 24 hours apart should be obtained when there is a higher level of suspicion for COVID-19
    - For patients with symptoms of COVID-19 and who recovered from COVID-19 in the prior 90 days, order Antigen testing instead of PCR testing.

## Resident Care: Suspected or confirmed COVID-19 (or PUI/possible PUI):

**Immediately:**

* Keep the door to the room closed, wear a **fit-tested N95 respirator,** **gloves**, **gown**, and **eye protection (face shield)** (“Enhanced Isolation Precautions”), and place a **medical mask on the resident** when anyone is in the room, unless the resident is unable to tolerate the mask. In a semi-private room, keep the privacy curtain closed and the residents separated as much as possible until one of the residents can be moved.
* Notify the resident and the resident’s representative of the COVID-19 related illness.

**Within 24 Hours (confirmed case or presumed case only):**

* Review the patient’s history to determine if the patient may be a “persistent positive” patient.
* If available, place and operate a portable HEPA/UV filtration device in the room unless the room is an Airborne Infection Isolation Room.
* Complete the outbreak investigation & contact tracing and plan to meet testing requirements.
* Relocate the resident with confirmed COVID-19 to a room in a designated COVID-19 area if such an area is already in use, or relocate any roommate. If a roommate needs to be relocated, do **not** move the roommate to another semi-private room.
* Offer any available and appropriate testing and treatment for COVID-19 as per UpToDate or <https://www.covid19treatmentguidelines.nih.gov/>.

**Ongoing:**

* Residents with **confirmed** COVID-19 may be cohorted in a room or unit with other residents with **confirmed** COVID-19 as long as no other contraindications to cohorting exist as per usual infection prevention procedures. Avoid cohorting patients with **confirmed** COVID-19 with patients who have **presumed** COVID-19 or **previously recovered** from COVID-19.
* If there is a confirmed outbreak of COVID-19 on the resident’s unit, newly-ill residents should be managed as presumptive-positive COVID-19 cases and have COVID-19 PCR testing.
* Only staff **fitted** for an N95 respirator will perform aerosol-generating procedures, including suctioning (if not using an inline catheter), nebulizer administration, manipulation of BiPAP/CPAP mask, chest physiotherapy, and CPR. A portable UV/HEPA filtration device must be used in the room during the aerosol-generating procedure.
* Actively monitor the resident once per shift for at least two weeks
* Interview for **new** symptoms, when the resident is able
* Measure body temperature and oxygen saturation.
* Additional observations to consider: Vital signs, Lung auscultation
* Residents with suspected or confirmed COVID-19 should be cared for by the same clinical staff, dedicated to the care of the COVID-19 patients whenever possible. Minimize the number of persons entering the resident’s room, including clinicians performing non-clinical work or work of other clinicians as long as the work is within their scope of practice.
* The resident should only leave the room for medically-necessary procedures.
  + Resident to perform hand hygiene (with assistance, if needed) & don a medical mask before leaving the room.

## Resident Care: Resident with exposure to COVID-19 inside or outside of the facility (includes possible Quarantine):

An **exposure** is defined as being within 6 feet for a cumulative total of 15 minutes or more over a 24-hour period to the COVID-19-positive person.

* Actively monitor the resident once per shift
* Interview for **new** symptoms when the resident is able
* Measure body temperature and oxygen saturation
* Additional observations to consider: Vital signs, Lung auscultation
* Offer any appropriate and available antiviral post-exposure prophylaxis.
* Notify a provider if a resident develops symptoms and follow the workflow in Section (C) above.
* Perform a COVID-19 PCR test, nasopharyngeal sample, one day after exposure and then every other day for 6 days after the exposure (typically a total of 3 tests). Avoid testing residents who were positive for COVID-19 in the prior 30 days. For residents who were positive for COVID-19 in the prior 3 months use an Antigen test instead of a PCR test.
* Implement **Source Control** for 7 days after the last exposure if all test results are negative, or 10 days if testing is not performed.
  + - The resident should wear a mask when people enter the resident’s room, if the resident is able to tolerate a mask.
    - The resident should wear a mask, perform hand hygiene, and maintain physical distancing when out of the room and unable to wear a mask, such as when eating.

**Quarantine:**

Quarantine Residents with an exposure who have not had a COVID-19 infection in the last 1 month and who:

* Are unable to tolerate a mask or maintain physical distancing.
* Are moderately to severely immunocompromised.

Contact the Infection Prevention Nurse for instructions in ongoing outbreaks as additional quarantine may be required.

For residents who are required to quarantine:

* + - Resident to remain in his/her room.
    - Resident is placed in Quarantine on **Quarantine** and **Contact** precautions – staff should wear a **gown**, **gloves**, **eye protection (face shield)**, and **N95 respirator**.
    - The quarantined resident should be placed in a private room. If limited private rooms are available, or if numerous residents are simultaneously identified as having recent exposure, the resident should remain in their current location.
    - Resident should wear a **medical mask** when staff enters the room, unless the resident is unable to tolerate the mask. The resident should also wear a mask, perform hand hygiene, and maintain physical distancing when out of the room and when out of the building.
    - Continue precautions for at least seven (7) days after the exposure. If the resident has remained asymptomatic and the results of all required COVID-19 tests were negative, precautions can be discontinued on Day 8 after the exposure.
    - If testing was not performed, precautions may be discontinued in an asymptomatic resident on Day 11 after the exposure.

## Facility exposed by a New case of Confirmed or Presumed COVID-19 in a Current or Previous Resident or Staff Member:

* Identify staff or residents with similar contacts as the new case (who may have unrecognized infection).
  + Screen the identified staff and residents for symptoms of COVID-19. Residents with symptoms of COVID-19 should be managed according to Section (C) above.
  + Test the identified staff and residents once for COVID-19. While PCR testing is preferred, Antigen testing may also be used and is preferred for people who were positive for COVID-19 in the prior 90 days.
* Determine which residents or units may have been exposed to the confirmed or presumed COVID-19 resident or staff member. Manage exposed residents as per Section (D) above. Exposed staff should wear a respirator or well-fitting mask at all times for 10 days after their exposure.
* Institute universal use of medical masks for all staff, visitors, and residents (if able to tolerate a mask) of the identified units or areas for 14 days after identification of the new case that resulted in exposures.
* Designated facility staff perform the [Outbreak Investigation](https://schabelmd-my.sharepoint.com/:f:/p/scott/Eq9qAHVnwDtHhcOnwvWjlLUBWBeBbSz2BTMOLweY0BfEfw).
* Follow workflow (C) above for any resident newly displaying signs and symptoms, even if the resident previously tested negative.

1. **Facility Management of Units with Nosocomial transmission of COVID-19**

* Confirmed or presumed COVID-19 patients should be cared for using the workflow in section (C) above.
* Staff on affected units should wear and a respirator (KN95, N95) at all times until 14 days have passed since the onset of the most recent patient case.
* Staff caring for confirmed or presumed COVID-19 patients should avoid caring for other residents or floating to other units. Follow the additional precautions required when caring for patients in workflows (C), (D) and (E) above.
* If the facility is unable to perform contact tracing for the outbreak:
  + - staff on affected units should wear eye protection (face shield) when within 6 feet of a resident, until 14 days have passed since the identification of the most recent patient case.
    - Follow Section (D) above for all residents on the affected unit.

## Discontinuation of precautions for a confirmed or presumed COVID-19 resident

1. At least twenty-four (24) hours have passed since last fever without the use of fever-reducing medications, and
2. Symptoms (if present) have improved, and
3. Ten (10) days to twenty (20) days have passed since symptom onset, depending on the severity of the patient’s illness and presence of immunocompromise, as determined by the attending medical provider, and with concurring assessment by the facility infection preventionist. If the patient is asymptomatic throughout his/her infection, the date of the positive test begins the clock for the required isolation time.
   1. Twenty Days AND Two Negative Antigen Tests taken at least 48 hours apart: Moderately-Severely Immunocompromised, such as
      * Being on chemotherapy or radiation therapy for cancer, leukemia, lymphoma,
      * Taking immunosuppressive therapy after an organ transplant
      * Being within two years from receiving a hematopoietic stem cell transplant,
      * HIV infection with CD4 T-lymphocyte count < 200,
      * Combined primary immunodeficiency disorder, or
      * Receipt of prednisone >20 mg/day for > 14 days or other immunosuppressive or immunomodulatory medications.
   2. Twenty Days, OR Ten Days with Two Negative Antigen Tests taken at least 48 hours apart: Individuals who (at their worst) had respiratory frequency >30 breaths per minute, SpO2 <94% on room air at sea level (or, for patients with chronic hypoxemia, a decrease from baseline of >3%), ratio of arterial partial pressure of oxygen to fraction of inspired oxygen (PaO2/FiO2) <300 mmHg, lung infiltrates >50%, respiratory failure, septic shock, and/or multiple organ dysfunction.
   3. Ten (10) Days: Individuals who remained asymptomatic, or (at their worst) maintained SpO2 ≥94% on room air (or, for patients with chronic hypoxemia, a decrease from baseline of ≤3%).

If the resident redevelops symptoms after discontinuation of precautions, re-implement isolation.

## Admission & Return (>24 hours) of Residents to the Nursing Home:

* If admitting a patient to a unit exposed to a case of COVID-19 in the prior 14 days, notify the prospective resident and the resident’s representative of the unit’s COVID-19 exposure.
* Determine the resident’s COVID-19 vaccination status. Verbal reports of vaccination must be confirmed using NYSIIS or a similar trusted source.
* Patients should wear a mask for 10 days after admission and should be tested for COVID-19:
  + Do not test people who had a positive COVID-19 result in the last 30 days.
  + People who have had a positive COVID-19 result in the last 90 days should be tested with a Point-of-Care Antigen test. All others should be tested with a PCR test.
  + Series of THREE COVID-19 tests. While a PCR test is preferred, an Antigen test may be used.
    - FIRST COVID-19 PCR test on the day of admission or re-entry.
    - SECOND and THIRD COVID-19 PCR tests every other day after admission.
  + Testing is recommended regardless of vaccination status
  + People who decline COVID-19 testing should be placed on contact and droplet precautions for 10 days after admission

## Admission Room Placement, Precautions, & Subsequent Testing:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Patient Status, Precautions, and Testing** | **COVID Negative Unit** | | **COVID Exposed Unit with Contact Tracing** | | **COVID-Exposed Unit, Unable to do Contact Tracing** | |
| **Private Rm** | **Double Rm** | **Private Rm** | **Double Rm** | **Private Rm** | **Double Rm** |
| **Unexposed, COVID-negative Patient** | Admit | Admit | Admit | Admit if any roommate is not in isolation. | Admit | Admit if returning to room and any roommate is not on isolation.  Do Not Admit a new person. |
| **Exposed, COVID-negative Person**  Follow Section (D) above for care, testing and isolation requirements. | Admit | Do Not Admit | Admit | Do Not Admit | Admit | Admit if returning to room and any roommate is not on isolation.  Do Not Admit a new person. |
| **COVID-Positive Person who has NOT completed the required duration of transmission-based precautions**   * Follow Section (C) above for care, testing and isolation requirements. | Admit if the person can comply with precautions | Do Not Admit | Admit if the person can comply with precautions | Admit, COVID-positive roommate only | Admit | Admit, COVID-positive roommate only |

1. **Resident Excursions from the Nursing Home**

* Residents do not require precautions after excursions unless the resident was exposed to COVID-19.
* Residents who leave the facility for 24 hours or longer should be managed as a new admission or re-entry (Section H).

1. **Staff Exposed to COVID-19 inside or outside of the facility**

An **exposure** is defined as being within 6 feet for a cumulative total of 15 minutes or more over a 24-hour period to the COVID-19-positive person.

* All staff are educated to notify the facility if they are exposed to COVID-19 outside of the facility
* For each staff member identified as having an exposure, calculate the date through which they need to wear a respirator or well-fitting mask at all times, usually 10 days after the Last Exposure Date. Notify the staff member(s) of their masking requirements:
  + Must wear a respirator (KN95 or N95) or well-fitting mask at all times when in the facility, removing the respirator or mask only when eating or drinking.
  + Eating and drinking are only permitted in areas where residents are unlikely enter, and while physically distanced from all other people. Exposed staff members may not eat or drink in a resident care area.
* Exposed staff members should self-monitor for fever and symptoms of COVID-19 and not report to work when ill or if testing positive for COVID-19 infection.
* Test exposed staff, with a nasal specimen (Antigen (preferred) or PCR) every other day starting 1 day after the First Exposure Date and continuing until 6 days after the Last Exposure Date (usually a total of 3 tests).
  + Do not test staff within 30 days of testing positive for COVID-19.

1. **Staff Returning to work after testing positive for COVID-19**

* Facility leadership should determine and communicate if the facility is following Conventional, Contingency, or Crisis Strategy to mitigate staff shortages and should follow all [CDC recommendations](https://www.cdc.gov/coronavirus/2019-ncov/hcp/mitigating-staff-shortages.html).
* When using the Conventional Strategy, follow all [CDC Recommendations](https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html) for return to work decisions.
* For staff members returning to work before meeting [CDC Criteria](https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html#:~:text=Return%20to%20Work%20Criteria%20for%20HCP%20with%20SARS%2DCoV%2D2%20Infection), calculate the date through which they need to wear a respirator (KN95 or N95) at all times, usually 10 days after the Onset Date. Notify the staff members of their respirator requirements:
  + Must wear a respirator at all times when in the facility, removing the respirator only when eating or drinking.
  + Eating and drinking are only permitted in areas where residents are unlikely enter, and while physically distanced from all other people. Exposed staff members may not eat or drink in a resident care area.
  + Staff no longer need to wear a respirator after two negative Point of Care Antigen tests performed 48 hours apart.

1. **Staff with Symptoms of COVID-19**

* Staff who report new onset of any [symptoms of COVID-19](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html) should be excluded from work unless a negative PCR test for COVID-19 is obtained.
* Staff with chronic conditions that mimic symptoms of COVID-19, such as allergies, COPD, headaches, and irritable bowel syndrome should, when experiencing the symptoms of their chronic condition:
  + Self-monitor for other symptoms of COVID-19
  + Perform a Point-of-Care Antigen COVID-19 test every 2-3 days.
  + Wear a respirator or well-fitting mask at all times, except when eating or drinking.
  + Not eat or drink in resident care areas.
  + Be restricted from work if they test positive or develop other symptoms of COVID-19, such as fever or chills, fatigue, muscle or body aches, or new loss of taste or smell, unless a negative PCR test for COVID-19 is obtained.