Q & A Document for COVID-19
Updated January 29, 2021

General Information

- Coronavirus (COVID-19) information from the CDC
- COVID-19 for Long-term Care Facilities from the CDC
- AMDA’s Resolution on COVID-19, dated March 19, 2020, states that a COVID-19 naïve facility should not accept an admission with clinical or lab evidence of active disease. Instead, care of these patients should be provided in alternate care sites and specialized COVID-19 facilities.

Current rates of COVID-19

- State & Territorial Health Department Websites
- COVID-19 USA Heat Map from AMDA and ASCP
- Johns Hopkins Coronavirus Resource Center
- World Health Organization Situation Dashboard

Tools

- Steps Healthcare Facilities Can Take Now to Prepare for COVID-19
- COVID-19 Preparedness Checklist for Nursing Homes and Other Long-Term Care Settings (pdf)
Clinical Presentation

• What are the signs and symptoms of COVID-19?

The signs and symptoms that are most common are fever, a dry cough and shortness of breath. Other symptoms include fatigue, loss of appetite, sputum production and body aches. Loss of sensation of taste and/or smell are symptoms specific to COVID-19 infection.

Similar to influenza illness, residents could present with exacerbation of underlying cardiac or respiratory condition such as congestive heart failure or COPD. Approximately 10% patients may have diarrhea followed by respiratory symptoms. A lower threshold should be set to evaluate these residents. As with many infections, the illness may show up differently in different people.

• What are risk factors for developing a severe COVID-19 infection?

Advanced age appears to be the most notable risk factor for severe disease and death. Other risk factors for severe disease include the following:

- Cancer
- Chronic kidney disease
- Heart conditions
- Obesity (with a body mass index (BMI) ≥30)
- Pregnancy
- Sickle Cell Disease
- Smoking
- Solid organ transplantation
- Type 2 diabetes mellitus underlying comorbid conditions, specifically obesity, cardiovascular disease, diabetes, chronic respiratory disease, hypertension, and cancer.¹


• I’ve heard that dialysis patients are at high risk for getting COVID-19. Is that true?

Dialysis patients are at high risk for acquiring the COVID-19 virus. This is likely due to both inherent immunocompromise in this population as well as possible exposures encountered during transport to/from dialysis and within the dialysis center itself.

¹ The vision of AMDA – The Society for Post-Acute and Long-Term Care Medicine is a world in which all post-acute and long-term care patients and residents receive the highest-quality, compassionate care for optimum health, function, and quality of life.
We recommend:
- Residents who are going to dialysis should wear a facemask for the entire time they are out of the LTC facility.
- Upon the resident’s return, staff should assist the resident with hand hygiene and changing of clothes.
- Place these residents in a single room with transmission-based precautions.
- Staff should give special attention to surveillance for influenza-like illness and should have high level of suspicion for COVID-19 in these residents.
- The LTC facility should communicate with the dialysis facility if one of its patients is suspected or tested positive for SARS-Cov-2.
- There should be a preemptive communication of the plans for how dialysis centers are handling the COVID-19 patients from the community.


- **What should we do to identify the disease early?**

  Staff should conduct active surveillance of residents for signs and symptoms of acute respiratory illness including fever. Staff should be cognizant that some residents may have atypical symptoms. They should be systematically marked on the facility map for identification of clusters of respiratory illness. They should also be recorded in a log of respiratory surveillance.

  **Instructions for the Long-Term Care (LTC) Respiratory Surveillance Line List**

  We recommend using the following criteria to screen residents for COVID-19.

<table>
<thead>
<tr>
<th>Typical and Atypical Signs and Symptoms of COVID-19 in Older Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical Signs and Symptoms</strong></td>
</tr>
<tr>
<td>Fever $\geq$ 37.2°C (99.0°F)</td>
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<tr>
<td>New cough or worsening of chronic cough</td>
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<table>
<thead>
<tr>
<th>Atypical Signs and Symptoms</th>
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<tbody>
<tr>
<td>Diarrhea, nausea and vomiting</td>
</tr>
<tr>
<td>Confusion or change in mental status. If noted, check pulse oximetry to determine if increased oxygen requirements</td>
</tr>
<tr>
<td>Exacerbations of congestive heart failure or chronic obstructive pulmonary disease</td>
</tr>
<tr>
<td>Chest pain</td>
</tr>
<tr>
<td>Sore throat, runny nose</td>
</tr>
<tr>
<td>Loss of sense of smell and/or taste</td>
</tr>
<tr>
<td>Muscle aches, headache</td>
</tr>
<tr>
<td>Chills with or without shivering</td>
</tr>
<tr>
<td>Generalized weakness</td>
</tr>
<tr>
<td>Unusual rashes such as rash over toes</td>
</tr>
</tbody>
</table>

*Any change in condition, including any of the above symptoms--typical or atypical--should trigger consideration for COVID-19 and subsequent testing.

- **One of our residents has a fever, cough, and shortness of breath. What should we do?**

  These symptoms could be caused by several different respiratory viral illnesses including COVID-19.

  **Isolate** the resident. Implement standard, contact, droplet precaution and eye protection. Use an N-95 or higher-level respirator for aerosol generating procedures.

  **Assess** the resident for severity of illness and need for hospitalization in conjunction with goals of care. Residents with acute respiratory symptoms should be placed on
an active monitoring protocol. Active monitoring includes checking vital signs, measuring pulse oximetry, and assessing for common and less common signs and symptoms of COVID-19 every 6 to 8 hours.

- **How common is co-infection with other respiratory viruses?**

  The rate of virus co-infection reported ranges from 2 to 16%. Depending on the burden of influenza in your region, clinicians should use their clinical judgment to consider testing concomitantly for influenza and COVID-19, as the former may be treated and prophylaxis can be offered to other residents.

  As of mid-December, the influenza season appears to be mild, likely due to the all of the precautions being used throughout the communities to reduce the spread of COVID-19. Peak influenza season (and respiratory syncytial virus (RSV) season) is typically in January and February so this may change.

  We recommend that if you have a symptomatic resident who has tested negative for COVID using a PCR-based test, to consider testing for both influenza and RSV.
Tests for COVID-19

• **Should I test my resident for COVID-19?**

Residents with new signs and symptoms of COVID-19 infection should be tested for SARS-CoV-2, even if they recently had a negative screening test.

• **What are the types of tests and which should I use?**

There are 2 types of diagnostic tests, both of which look for SARS-CoV-2 that is reproducing in our bodies.

1. Polymerase chain reaction (PCR)-based tests
2. Antigen tests

There is a 3rd type of test, which looks for antibodies to the virus in blood. These are not used to diagnosis someone with COVID-19. They may eventually be used to determine a previous infection or vaccination with SARS-CoV-2 but this is not yet clear.

• **When should we use a PCR-based test?**

PCR-based tests are diagnostic test that look for an active infection. These are best used to test people with active signs and symptoms of a COVID-19 infection. PCR-based tests work by detecting RNA which is the genetic material of the virus.

• **How do we collect a nasopharyngeal swab for PCR-based tests?**

The swab is taken from the back of the nose which means it is inserted into the nasal pharynx. This can be pretty uncomfortable and for older adults is probably best done by a healthcare worker who was wearing personal protective equipment including an N-95 mask and a face shield, gloves, and a gown. Getting a swab from the nasopharynx can often make people sneeze or cough which generates aerosols.

Use a swab with synthetic fibers and plastic shafts; these are the same swabs used for collecting samples to test for influenza (dacron/nylon). Place swabs into sterile tubes with 2-3 mL of viral transport media (pink liquid).
Refrigerate specimens (2-8°C) for up to 72 hours after collection. The CDC has guidelines for the collection of clinical specimens.


• What are the pros and cons of PCR-based tests?

Pros to using the PCR based test are that these are accurate and reliable and sensitive. The procedure for collecting and transporting the samples is similar to the nasopharyngeal swab’s that are also used for influenza testing.

The cons are disadvantages to using a PCR-based test is that this can be pretty uncomfortable for the person being tested PCR-based tests take at least 24 hours and sometimes several days for the results to be made available.

• What do the results of a PCR-based test mean?

A positive PCR test means that there is viral RNA in that person’s nasal pharynx. And therefore in the respiratory tract. If the person is symptomatic and has not had a COVID-19 infection in the previous 90 days, a positive PCR means they have a COVID-19 infection.

We know that the PCR-based tests can continue to detect viral RNA for days to weeks after an individual is no longer shedding the viral particles that spread COVID-19 infection. For this reason, a PCR based test should not be used to decide when someone can come out of transmission-based precautions.

A negative PCR test means that the person does not have a COVID-19 infection. No test is perfect, so sometimes the results from a test may be wrong. In general, PCR-based tests are reliable.

• When should we use an antigen test?

Antigen tests are best used to test people with active signs and symptoms of COVID-19 infection. Antigen tests work by detecting proteins on the outer surface of the virus, specifically nucleocapsid phosphoproteins or spike glycopeptide proteins.

How do we collect a sample for an antigen test?
The swab for antigen-based testing is taken from the front of the nose or the anterior nares. Most people tolerate this without any problem.

- **What are the pros and cons of antigen tests?**

  Pros for antigen base testing is that this has a rapid turnaround time—on the order of minutes. Also, the samples are very easy to collect.

  The cons or disadvantages of antigen-based tests are that it has a lower sensitivity compared to PCR based testing me and there can be false negatives. For this reason the FDA recommends that a second PCR-based test should be used to confirm negative test results for people who have signs and symptoms of COVID-19 infection but have a negative antigen test.

  Another con to the antigen-based testing is that it has lower specificity. This means is can lead to false positive results. Finally while having the machines to do antigen-based testing at your facility is an advantage, it also means that a staff member must be available to run those tests. So administrators need to take into account allocation of staff.

- **What do the results of antigen tests mean?**

  A positive test in a symptomatic resident means that person has an active COVID-19 infection.

  A negative test in someone with symptoms may be a false negative. A negative PCR-test is needed before stopping transmission-based precautions in people with signs and symptoms of COVID-19.

  A positive test in someone without signs and symptoms of COVID-19 needs to be confirmed by a molecular test (such as a PCR).

  A negative test in someone without signs and symptoms of COVID-19 may be interpreted as a negative test result.
While antigen-based testing is not new, its use for COVID-19 is relatively new. There are still many unknowns about how to best use antigen testing to diagnose COVID-19 infections. No test is perfect, so sometimes the results from a test may be wrong.


**Managing Residents with COVID-19 Infection**

- **What should we expect to see in the typical course of COVID-19 illness?**

  COVID-19 infections are now common so we see a wide array of clinical presentations and courses. Some residents may get a mild illness and recover. Some patients may have an indolent course with high fevers and respiratory symptoms for 1-3 weeks and recover with supportive care. Some may have indolent course with fever and respiratory symptoms and show worsening between day 7 and 9 with acute respiratory failure. Some may present with acute respiratory failure and a rapid decline.

  Patients with COVID-19 should be monitored closely with frequent vital signs and oximetry checks. Drops in oximetry and change in mental status may herald worsening.

- **What is considered a mild to moderate COVID-19 infection? What about a severe infection?**

  **Non-severe** (mild to moderate) COVID-19 infections means the individual can maintain a pulse oximetry of >94% without the need for supplemental oxygen.

  **Mild disease** means people may have any combination of several signs and symptoms (fever, cough, sore throat, malaise, headache, muscle pain, nausea, vomiting, diarrhea, loss of taste and smell) and **do not have** shortness of breath, dyspnea, or abnormal chest imaging.

  **Moderate disease** means people have lower respiratory tract disease (shortness of breath, dyspnea, new findings on chest imaging) and can maintain a pulse oximetry of >94% without the need for supplemental oxygen.

  **Severe illness** is defined as a person with a pulse oximetry of ≤94% on room air, including those who are on supplemental oxygen.
**Critical illness** is defined as a person who requires mechanical ventilation or ECMO.

- **Should I transfer my resident with COVID-19 to the hospital?**

  For residents with asymptomatic or non-severe (mild to moderate) illness, we recommend to treat-in-place.

  Some residents with severe disease may be managed in long-term care; some may require transfer to a higher level of care. The decision to transfer depends several factors, including the burden of disease in your community, the burden of disease in your building, the ability to provide supportive care for your residents and on the resident’s goals of care.

- **We have several residents with severe COVID-19 and our hospitals are overwhelmed. We have decided to treat in place. What treatments should consider?**

  **Supportive Care**

  Supportive care measures for most resident includes
  - acetaminophen and/or ibuprofen to reduce fevers and to symptom relief
  - oxygen
  - oral and possibly intravenous fluids for hydration
  - loperamide (1 to 2 mg) for residents with severe diarrhea due to COVID-19; we suggest ruling out active infection due to *Clostridioides difficile* first.

  Consider using meter-dosed inhalers with or without spacers, and oral albuterol to ease respiratory symptoms.

  For patients with significant respiratory illness and symptoms consider palliative and hospice care in conjunction with patient’s goals of care. For these patients, symptom relief with opioids and benzodiazepines will likely be required for end of life care.

  **Steroids**

  We recommend steroids for people with severe disease. This recommendation is based on both the Infectious Disease Society of American (IDSA) and the NIH recommendation to use dexamethasone for hospitalized patients with severe COVID-
19 infections. We are extrapolating this to also apply to long-term care residents with COVID-19 and a pulse oximetry of ≤94% on room air.

The specific treatments are 6mg of dexamethasone by mouth (or IV) daily for up to 10 days. If dexamethasone is not available, equivalent doses are 40mg of prednisone or 32mg of methylprednisolone.

**Anticoagulation**
Continue anticoagulation, including antiplatelet therapies, in people already taking these medications.

People with COVID-19 infection who have a documented or suspected thromboembolism (limb deep vein thrombosis) should receive anticoagulation.

People with non-severe (mild to moderate) disease should NOT receive anticoagulation.

People with severe COVID-19 infection should receive anticoagulation. This appears to be an evolving area and there is not data that we are aware of specific to residents of long-term care settings. Accordingly, extrapolating from recommendations for hospitalized patients with severe infections, we recommend using prophylactic doses of low molecular weight heparin (enoxaparin or dalteparin) or fondaparinux.

**Enoxaparin** For patients with creatinine clearance (CrCl) >30 mL/min, 40 mg once daily subq; for CrCl 15 to 30 mL/min, 30 mg once daily subq.

**Dalteparin** 5000 units once daily subq

**Fondaparinux** For patients with a history of heparin-induced thrombocytopenia (HIT), 2.5 mg once daily, subq

- **How long should my resident recovering from COVID-19 continue to receive anticoagulation?**
This appears to be an evolving area and there is no data that we are aware of specific to residents of long-term care settings. Recommendations for hospitalized patients with severe infections are to stop anticoagulation at the time of discharge, with exceptions for people who are at particularly high risk for venous thromboembolism. Applying this to long-term care residents treated for severe infection, we suggest stopping anticoagulation on or before 10 days have passed from symptom onset. The references for this section include guidance from professional societies.

- **What is the evidence for administration of anti-coagulation and steroids for long-term care residents with COVID-19 infection?**

  There is not direct evidence about using these therapies in long-term care. The guidelines available only consider patients who are hospitalized. Given the extreme burden of COVID-19 on the healthcare system, as well as the evidence and collective experience of using steroids and anticoagulation, we believe that use of these agents in long-term care is reasonable.

- **Should we give remdesivir in long-term care settings?**

  We recommend against the administration of remdesivir in most long-term care settings.

  Remdesivir is an antiviral with in vitro activity against a range of RNA viruses. It appears to confer a therapeutic benefit for people with severe COVID-19 infection.

  Side effects from remdesivir including hepatotoxicity with elevation of ALT and AST and also prolonged prothrombin time (PTT). These labs should be monitored daily for people on remdesivir; this is not feasible in most long-term care settings.

  Remdesivir should not be administered to people with a CrCl ≤30 and the manufacturer recommends against its use for people receiving renal replacement therapy.
• Should we administer the monoclonal antibody bamlanivimab for COVID-19 infection in long-term care settings?

The FDA has granted emergency use authorization for bamlanivimab (from Eli Lilly) and the combination of casirivimab plus imdevimab (from Regeneron pharmaceuticals).

The published data for bamlanivimab described a decrease in emergency room visits and hospitalizations in the treatment compared to the placebo arm (https://pubmed.ncbi.nlm.nih.gov/33113295/). These differences are based on 14 individuals (5/309 and 9/143 in the treatment and placebo arms respectively) patients that had an emergency room visit or hospitalization in both arms combined. The agent did not cause serious adverse events and appeared to be well tolerated in most individuals.

The IDSA guidelines state:
Among ambulatory patients with COVID-19, the IDSA guideline panel suggests against the routine use of bamlanivimab. (Conditional recommendation, Very low certainty of evidence.
In patients at increased risk (as defined by the FDA EUA [122]), bamlanivimab is a reasonable treatment option if, after informed decision-making, the patient puts a high value on the uncertain benefits and a low value on uncertain adverse events.

The NIH guidelines state:
- At this time, there are insufficient data to recommend either for or against the use of bamlanivimab for the treatment of outpatients with mild to moderate COVID-19.
- Bamlanivimab should not be considered the standard of care for the treatment of patients with COVID-19.
- An interim analysis of the BLAZE-1 study, a Phase 2, randomized, placebo-controlled trial, suggested a potential clinical benefit of bamlanivimab for outpatients with mild to moderate COVID-19. However, the relatively small number of participants and the low number of hospitalizations or emergency department visits make it difficult to draw definitive conclusions about the clinical benefit of bamlanivimab.

For more information regarding use of this agent, including considerations on criteria for administration, observation, and staffing needs, visit https://www.ascp.com/page/mab
• **Should we administer the monoclonal antibody *casirivimab plus imdevimab combination* for COVID-19 infection in long-term care settings?**

The FDA has granted emergency use authorization for the combination of casirivimab plus imdevimab (from Regeneron pharmaceuticals).

The data describing casirivimab plus imdevimab has not yet been published in a peer-reviewed journal.

The IDSA guidelines have not yet issued a statement for this agent.

The NIH guidelines regarding COVID state:

- At this time, there are insufficient data to recommend either for or against the use of casirivimab plus imdevimab for the treatment of outpatients with mild to moderate COVID-19.
- The casirivimab plus imdevimab combination **should not be considered** the standard of care for the treatment of patients with COVID-19.

• **Should we give convalescent plasma in long-term care settings?**

We recommend against the administration of convalescent plasma in long-term care settings.

While this appeared to hold promise in early evaluations, the data are not sufficient to recommend convalescent plasma to treat COVID-19 infections. Variations in the titers of antibodies in the plasma of people who have recovered from COVID-19 add to the complications with assessing the efficacy of convalescent plasma.

Administration of convalescent plasma requires a type and screen and is infused with the same procedures and precautions as other blood products.

• **Should we hold NSAIDs or ACE-I?**

There is not evidence to indicate that either non-steroidal anti-inflammatory drugs (NSAIDs) or angiotensin-converting enzyme inhibitors/angiotensin receptor blockers (ACE-I/ARBs) make COVID-19 infections worse.
NSAIDs certainly come with their own risks and side effects. We recommend acetaminophen as the first choice for an antipyretic and analgesic agent.

- Where can I find information about the evidence about new treatments?

Both the Infectious Disease Society of American (IDSA) and NIH offer evidence-based guidelines on the treatment of COVID-19. Their recommendations are updated regularly. Information from these documents informed many of the recommendations made above (as well as our clinical practice).


https://www.covid19treatmentguidelines.nih.gov/

References for the treatment section above:


https://www.covid19treatmentguidelines.nih.gov/


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Did not address or modify any of the following:

- **The COVID-19 test on one of our residents came back positive. What do I do?**

  Immediately notify your local and state health department.

  We recommend that facilities follow infection prevention and control practices similar to how they respond to an influenza outbreak.

  - Continue to isolate symptomatic residents.
  - Continue to restrict all group activities including dining
  - Avoid new admissions or transfers to wards with symptomatic residents.
  - Continue to restrict visitation via posted notices.
  - Monitor healthcare personnel absenteeism due to respiratory symptoms and exclude those who are ill from work.
  - Restrict healthcare personnel movement between affected and unaffected areas/units of the facility.

  **Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings**

  A decision to stop new admissions to the facility should be made in conjunction with the local and state health department.

  Facilities should have a communication plan with families. Communications may be provided through a variety of means such as phone call, letter, email, website postings, etc. Some states have made it mandatory to contact family members when a resident has tested positive for COVID-19 or has died from it.

- **What about the roommate and other residents in the same area as our COVID-19 positive resident?**

  If the ill resident is confirmed to have COVID-19, any roommates or other contacts should be placed under surveillance for development of respiratory illness. The roommate should be placed in a private room to minimize ongoing exposure to other
residents and staff. Management of other contacts should be coordinated with the local or state health department and infection preventionist.

• **What about the healthcare staff that cared for our COVID-19 positive resident before she was placed on contact and droplet precautions?**

Exposed staff should be referred to occupational health for assessment of the degree of exposure and the need to furlough. In many nursing homes, the function of occupational health is performed by infection preventionist.

We recommend that nursing facilities create interim small teams who perform the occupational health function. This is in anticipation of increased need for such function, to cover all shifts and to allow IP to perform other functions related to infection control and prevention.