Management of Hemodialysis Patients Residing in Long Term-Care Facilities

This guidance has been updated according to CDC recommendations revised on March 29, 2021. Changes to this guidance include: quarantine and work exclusion considerations for fully vaccinated residents and healthcare personnel (HCP); visitation; and circumstances when quarantine is recommended for residents who leave the facility for dialysis.

Residents in long-term care facilities (LTCFs) are at higher risk of COVID-19 related morbidity and mortality, and those who undergo hemodialysis are a particularly vulnerable subpopulation. Residents frequently leaving their facilities for dialysis are at higher risk for infection by COVID-19 due to exposure to staff and community patients at dialysis centers. This guidance addresses infection prevention and control (IPC) recommendations for residents in skilled nursing facilities and assisted living facilities who regularly visit outpatient hemodialysis centers. This document is designed to be used as a companion to CDC COVID-19 guidance for outpatient hemodialysis facilities and nursing homes. It is based on currently available information about SARS-CoV-2 and will be updated as more information becomes available.

Infection Prevention and Control Recommendations for Hemodialysis Patients in Nursing Homes

- As LTCFs start resuming normal practices and begin relaxing restrictions, facilities must sustain core IPC practices and remain vigilant for SARS-CoV-2 infection among residents and HCP in order to prevent spread and protect residents and HCP from severe infection, hospitalization, and death.
- Facilities should reinforce HCP adherence to standard IPC measures, including hand hygiene and selection and correct use of PPE. Staff in charge of IPC programs should have HCP demonstrate competency with putting on (donning) and removing (doffing) PPE and monitor adherence by observing their resident care activities.
- Because of the high risk of unrecognized infection among residents, a single new case of SARS-CoV-2 infection in any HCP or a LTCF-onset SARS-CoV-2 infection in a resident should be evaluated as a potential outbreak and HCP should care for residents using an N95 or higher-level respirator, eye protection (i.e., goggles or a face shield that covers the front and sides of the face), gloves, and gown.
- Receiving a COVID-19 vaccination is an important step to prevent SARS-CoV2 infection. LTCFs should continue to regularly vaccinate new admissions and staff.
- Residents who leave the facility should be reminded to follow all recommended IPC practices including source control, physical distancing, and hand hygiene, and to encourage those around them to do the same.
- Individuals accompanying residents (e.g., EMS, transport personnel) should also be educated about IPC practices and should assist the resident with adherence.
- For residents going to hemodialysis appointments, regular communication between the dialysis center and the LTCF (in both directions) is essential. Routine communication will help identify residents with potential exposures or symptoms of COVID-19 before they enter the facility so that proper precautions can be implemented.
- In most circumstances, quarantine is not recommended for residents who leave the LTCF for hemodialysis appointments if they do not have close contact with someone with SARS-CoV-2 infection.
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- Facilities might consider quarantining residents who leave the facility if, based on an assessment of risk, uncertainty exists about their adherence, or the adherence of those around them, to recommended IPC measures.
- Fully vaccinated but asymptomatic residents in an LTCF with exposure (prolonged close contact) to someone with suspected or confirmed COVID-19 should be quarantined and should be cared for using appropriate Transmission-Based Precautions. More information is available here.
- Increase monitoring of residents with suspected or confirmed SARS-CoV-2 infection, including assessment of symptoms, vital signs, oxygen saturation via pulse oximetry, and respiratory exam, to at least 3 times daily to identify and quickly manage serious infection.
- Facilities should adhere to CMS regulations and guidance for COVID-19 testing, including routine staff testing, testing of individuals with symptoms, and outbreak testing. CMS recommends routine testing for nursing home residents who regularly leave the facility.
- Increase monitoring of residents with suspected or confirmed COVID-19 in a single room if available. Refer to Table 2 for more details.
- Position supplies close to dialysis chairs and nursing stations to promote adherence to hand hygiene, respiratory hygiene, and cough etiquette.
- HCP should follow Standard Precautions and additional precautions routinely recommended for hemodialysis facilities (e.g., wearing a gown, gloves, and face shield during catheter connection) and Transmission-Based Precautions if required based on the suspected diagnosis.
- Facilities should follow CDC’s guidance for testing healthcare personnel. Refer to Table 3 for more information.

Infection Prevention and Control Recommendations for Patients in Outpatient Hemodialysis Facilities

- Active triage and isolation of patients with suspected COVID-19 in a single room if available. Refer to Table 2 for more details.
- Position supplies close to dialysis chairs and nursing stations to promote adherence to hand hygiene, respiratory hygiene, and cough etiquette.
- HCP should follow Standard Precautions and additional precautions routinely recommended for hemodialysis facilities (e.g., wearing a gown, gloves, and face shield during catheter connection) and Transmission-Based Precautions if required based on the suspected diagnosis.
- Facilities should follow CDC’s guidance for testing healthcare personnel. Refer to Table 3 for more information.

Infection Prevention and Control Core Principles that Apply to Both Settings

- Universal source control (facemask) for both patients and HCP regardless of symptoms to address asymptomatic and pre-symptomatic transmission.
- Screening, monitoring and education of patients, staff, and visitors.
- Provide patients, HCP, and visitors instructions (in appropriate languages) about screening and triage procedures.
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- Fully vaccinated HCP with higher-risk exposures who are asymptomatic do not need to be restricted from work for 14 days following their exposure. However, work restrictions should still be considered for fully vaccinated HCP with higher-risk exposures and who have underlying immunocompromising conditions. More information is available [here](#).
- HCP who develop symptoms of COVID-19 should immediately refrain from patient care, return home, and notify occupational health services for further evaluation.
- Facilities should screen all visitors, HCP, volunteers, and anyone entering the facility. Facilities should restrict anyone who is ill, e.g., visitors, HCP and volunteers, from entering the facility.
- Frequent environmental cleaning and disinfection using products with EPA-approved emerging viral pathogens claims are recommended for use against COVID-19 ([list N](#)).
- All non-dedicated, non-disposable medical equipment used for patient care should be appropriately cleaned and disinfected according to manufacturer’s instructions and facility policies.
- Staff should follow standard operating procedures for the disposal of used PPE and regulated medical waste.
- Facilities should monitor and audit the selection and the use of appropriate PPE by HCP.
- Communication: In order to maintain safe and effective care of dialysis patients, dialysis facilities and nursing homes should establish communication and reporting mechanisms, which promote situational awareness between both healthcare facilities.
- Coordination between the two entities is vital to ensure HCP are informed of the most up-to-date information relating to the patient’s health status, possible exposures, and to allow for proper planning of care and operations.
- Hemodialysis patients should be prioritized for testing because of higher risk for severe disease.

Infection Prevention and Control Recommendations for Hemodialysis Patients During Transport

- Facilities should establish protocols to reduce contamination risks when residents are transported to dialysis and other outside appointments.
- Both the driver and the hemodialysis patient should wear facemasks (if tolerated) the entire time during transportation.
- Residents should have easy access to hand hygiene supplies when they enter and leave the facility.
- The CDC offers guidance on [Cleaning and Disinfection for Non-emergency Transport Vehicles](#) as a best practice for cleaning transportation vehicles.
- Transporting residents from different facilities in the same vehicle is not recommended.
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Table 1. Placement of Hemodialysis Patients in Nursing Homes by COVID-19 Status

<table>
<thead>
<tr>
<th>Health Status</th>
<th>COVID-19 Test Result</th>
<th>Public Health Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptomatic OR</td>
<td>Positive</td>
<td>Isolate in a dedicated COVID-19 unit (hot/red zone) on transmission-based precautions until discontinuation criteria has been met.</td>
</tr>
<tr>
<td>Asymptomatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symptomatic</td>
<td>Negative</td>
<td>If an alternate diagnosis has been made, placement should be based on that diagnosis. If no alternate diagnosis has been made, residents should be placed in the warm/yellow zone with frequent symptom monitoring and prioritization for repeat testing.</td>
</tr>
<tr>
<td>Asymptomatic</td>
<td>Negative</td>
<td>Quarantine is not recommended for residents who do not have close contact with someone with SARS-CoV-2 infection. Facilities might consider quarantining residents who leave the facility for dialysis, if uncertainty exists about their adherence or the adherence of those around them to recommended IPC measures.</td>
</tr>
</tbody>
</table>
### Table 2. Placement of Patients in Dialysis Centers by COVID-19 Status

<table>
<thead>
<tr>
<th>Health Status</th>
<th>COVID-19 Test Result</th>
<th>Public Health Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptomatic OR Asymptomatic</td>
<td>Positive</td>
<td>- Ideally, any infected dialysis patient would be dialyzed in a separate room (if available) with the door closed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Hepatitis B isolation rooms should only be used for these patients if: 1) the patient is hepatitis B surface antigen positive, or 2) the facility has no patients on the census with hepatitis B infection who would require treatment in the isolation room.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If a separate room is not available, the patient with suspected or confirmed SARS-CoV-2 infection (or who reported close contact(^\dagger)) should be treated at a corner or end-of-row station, away from the main flow of traffic (if available). The patient should be separated by at least 6 feet from the nearest patient (in all directions).</td>
</tr>
<tr>
<td>Symptomatic</td>
<td>Negative</td>
<td>If an alternate diagnosis has been made, placement should be based on that diagnosis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If no alternate diagnosis has been made, the resident should be dialyzed separate from other patients by at least 6 feet and cared for by HCP using all recommended PPE for SARS-CoV-2 until 14 days after the resident’s last exposure.</td>
</tr>
<tr>
<td>Asymptomatic and exposed(^\dagger)</td>
<td>Negative</td>
<td>Exposed patients should be dialyzed separate from other patients by at least 6 feet and cared for by HCP using all recommended PPE for SARS-CoV-2 until 14 days after the resident’s last exposure.</td>
</tr>
</tbody>
</table>

\(^\dagger\)Patients/residents who were within 6 feet of an infected person for a cumulative total of 15 minutes or more over a 24-hour period.
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Table 3. Placement of Confirmed or Suspect Staff in Nursing Homes and/or Dialysis Centers

<table>
<thead>
<tr>
<th>Health Status</th>
<th>COVID-19 test result</th>
<th>Public Health Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptomatic OR Asymptomatic</td>
<td>Positive</td>
<td>Exclude from work until all Return to Work Criteria are met.</td>
</tr>
</tbody>
</table>
| Symptomatic                  | Negative             | If an alternative diagnosis is provided, criteria for return to work should be based on that diagnosis.  
                                  |                                                   | If no alternative diagnosis, exclude from work until all Return to Work Criteria are met.  
                                  |                                                   | Retesting, if available, might be considered for further evaluation. |
| Asymptomatic with high-risk exposure | Negative* | Perform a risk assessment and apply work restrictions for HCP who were exposed to the infected patient based on whether these HCP had prolonged, close contact and what PPE they were wearing. Information that is more detailed is available in Interim U.S. Guidance for Risk Assessment and Work Restrictions for Healthcare Personnel with Potential Exposure to COVID-19  
                                  |                                                   | For HCP who were suspected of having COVID-19 and had it ruled out, then return to work decisions should be based on their other suspected or confirmed diagnoses  
                                  |                                                   | Fully vaccinated HCP with higher-risk exposures who are asymptomatic do not need to be restricted from work for 14 days following their exposure except HCP who have an immunocompromising condition. |

*Asymptomatic HCP who have recovered and are within 3 months of a positive test for SARS-CoV-2 infection may not need to be quarantined or tested following re-exposure to someone with SARS-CoV-2 infection