Considerations for Personal Protective Equipment (PPE) and Cohorting during COVID-19 Response in Long-Term Care Facilities

Standard Precautions should be followed for every resident all the time and Transmission-Based Precautions followed as indicated. Source control, and physical distancing (when feasible and does not interfere with provision of care) are recommended for everyone in a healthcare setting*. The PPE used by HCP when caring for residents in a LTC facility and during a COVID-19 outbreak response is based on multiple factors including, but not limited to, the county COVID-19 transmission rate, the COVID-19 status of the resident(s), their exposure to SARS-CoV-2, and their vaccination status. The table below outlines recommended PPE for various scenarios of SARS-CoV-2 exposure to suspect or confirmed cases of COVID-19. In order to help stop the spread of COVID-19 during an outbreak response, residents may be moved to and housed in designated units or areas based on their COVID-19 status. These designated units or areas may be called Cold, Warm, and Hot based on the COVID-19 status of the residents.

Recommended PPE for HCP during activities when there is no COVID-19 outbreak response *	**Hand Hygiene**	**Facemask (and/or source control)**	**Gloves**	**Gown**	**Eye Protection**[3]	**NIOSH-approved N95 or equivalent or higher-level Fit-tested Respirator**
All residents, all the time	X	X **			X when substantial to high transmission rate	
Within resident room or care area	X	X	X		X when substantial to high transmission rate	
High contact activity	X	X	X	X	X	
Splash/spray possible	X	X	X	X	X	
Aerosol-generating procedure[1]	X	NA	X	X	X	X[2]
When SARS-CoV-2 not suspected but facility is in a county with substantial or high transmission:	X	X	As indicated by standard precautions	As indicated by standard precautions	X Eye protection should be worn during all patient care encounters	N95 for all aerosol-generating procedures, all surgical procedures where potentially infectious aerosols or involving regions where viral loads might be higher (nose, throat, oropharynx, respiratory tract, and when multiple risk factors are present
Recommended PPE[4] for HCP during COVID-19 outbreak response	**Hand Hygiene**	**Facemask**	**Gloves**	**Gown**	**Eye Protection**	**Fit-tested Respirator**
When entering room of a patient with suspected/symptomatic or confirmed SARS-CoV-2: (Standard + Full PPE)	X	NA	X	X	X	X[2]
When providing care for asymptomatic, fully-vaccinated resident or resident who has had SARS-CoV-2 in last 90 days, following close contact with someone with SARS-CoV-2*** (Standard)	X	X (resident with close contact should wear source control)	As indicated by standard precautions	As indicated by standard precautions	As indicated by standard precautions	As indicated by standard precautions

When providing care for unvaccinated resident who has had close contact to someone with SARS-CoV-2 infection (14-day quarantine), or for an unvaccinated resident during broad-based approach to outbreak response, and for fully-vaccinated individuals with moderate to severe immunocompromise (as determined by the treating provider): (Standard + Full PPE)	X	NA	X	X	X	X[2]

*Per CMS, an outbreak is defined as a new COVID-19 infection in any healthcare personnel (HCP) or any nursing home-onset COVID-19 infection in a resident. A resident who is admitted to the facility with COVID-19 does not constitute a facility outbreak. A new COVID-19 infection in any staff or any nursing home-onset COVID-19 infection in a resident triggers an outbreak investigation.
Source control is recommended for everyone in the healthcare setting. This is particularly important for individuals, regardless of their vaccination status, who live or work in counties with substantial to high community transmission **OR who have:

- Not been fully vaccinated; or
- Suspected or confirmed SARS-CoV-2 infection or other respiratory infection (e.g., those with runny nose, cough, sneeze); or
- Had close contact (patients and visitors) or a higher-risk exposure (HCP) with someone with SARS-CoV-2 infection for 14 days after their exposure, including those residing or working in areas of a healthcare facility experiencing SARS-CoV-2 transmission (i.e., outbreak); or
- Moderate to severe immunocompromise; or
- Otherwise had source control and physical distancing recommended by public health authorities

Note, allowances for source control could be considered for fully vaccinated individuals (who do not meet the above criteria) in healthcare facilities located in counties with low to moderate community transmission in the following situations:

- Fully vaccinated HCP when in well-defined areas that are restricted from patient access (meeting rooms, kitchen)
- For indoor visitation, if the patient and all their visitor(s) are fully vaccinated (can choose not to wear source control and to have physical contact)
- For outdoor visitation, in general, fully vaccinated people do not need to wear a mask outdoors
- Fully vaccinated Residents in nursing homes in areas of low to moderate transmission.

[1] Such as suction, ventilation, CPR, nebulizer treatments, etc. (See https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html#infection-Control for a description of aerosol generating procedures)

[2] If available and fit-tested, otherwise wear a facemask

[3] In areas of substantial to high transmission in which healthcare personnel (HCP) are using eye protection for all patient encounters, extended use of eye protection may be considered as a conventional capacity strategy.

[4] If PPE shortages exist implement strategies to optimize PPE supply on the unit:

- Bundle care activities to minimize the number of staff entries into a room.
- Consider extended use of respirators (or facemasks if respirators are not available), and eye protection. Extended use of respirators, facemasks, and eye protection, which refers to the practice of wearing the same respirator or facemask and eye protection for the care of more than one resident (e.g., for an entire shift).
- Care must be taken to **avoid touching the respirator, facemask, or eye protection**. If this must occur (e.g., to adjust or reposition PPE), staff should perform hand hygiene immediately after touching PPE to prevent contaminating themselves or others.
- Consider prioritizing gowns for high-contact resident care activities and activities where splash or spray exposures are anticipated. If extended use of gowns is implemented as part of crisis strategies, the same gown should not be worn when caring for different residents unless it is for the care of residents with confirmed COVID-19 who are cohorted in the same area of the facility and these residents are not known to have any co-infections (e.g., ***Clostridioides difficile***).

***Asymptomatic residents who are fully vaccinated or who have had SARS-CoV-2 infection in the last 90 days do not require use of transmission-based precautions (quarantine) following close contact with someone with SARS-CoV-2 infection. Use of Transmission-Based Precautions (quarantine) is not required for fully vaccinated residents following close contact with someone with SARS-COV-2 infection unless they develop symptoms of COVID-19, OR are diagnosed with SARS-CoV-2 infection. The exposed resident should wear source control for 14 days. Exception: When there is uncontrolled, ongoing transmission within a facility, strong consideration for use of quarantine for fully vaccinated patients/residents on affected unit(s) and work restrictions for fully-vaccinated HCP with higher-risk exposure or when recommended by LHD.

Important steps to consider when designating hot, warm, and cold units during a COVID-19 outbreak:

COVID-19 Care Unit (Hot Unit): During a COVID-19 outbreak, a separate unit/area for the care of residents with confirmed COVID-19 (those who test positive), who have not met criteria for discontinuation of transmission-based precautions.

- **For care of residents with confirmed COVID-19 (those who test positive) during a COVID-19 outbreak, who have not met criteria for discontinuation of transmission-based precautions.**
- The unit should be physically separated from other rooms or units housing residents without suspected or confirmed COVID-19.
- Depending on facility capacity (e.g., staffing, supplies) to care for affected residents, the COVID-19 care unit (Hot Unit) can be a separate floor, wing, or cluster of rooms. A plastic partition, a temporary wall with a door, or another means of physical separation at the entry to the unit may be utilized. The physical barrier provides awareness to anyone entering the area.
- Limit points of entry and exit. Ideally there should be a separate exit for staff to leave the area to avoid reentering the main facility.
- Place clear signage at the entrance to the COVID-19 care unit (Hot Unit) that instructs staff they must wear eye protection and an N95 or higher-level respirator (or facemask if a respirator is not available) at all times while on the unit. Gowns and gloves should be added when entering resident rooms.
- Assign dedicated staff (cohort) to work only on the COVID-19 care unit. Dedicated means that staff are assigned to care only for these patients during their shifts. Staff should not cross to other areas to the extent possible during their shift.
- Staff working on the COVID-19 care unit should ideally have a restroom, break room, and work area that are separate from staff working in other areas of the facility.
- When personnel such as Occupational Therapy, Physical Therapy, Wound Care Specialist, Nurse Practitioner, or other Providers, cannot be dedicated to the hot unit and services cannot be delayed, consider scheduling these resident visits to the hot unit at the end of the day.
- Ensure staff practice source control measures and social distancing where appropriate. See * above.
- Develop a schedule to ensure that high-touch surfaces in staff break rooms and work areas are frequently cleaned and disinfected (e.g., each shift).
- Perform hand hygiene by using alcohol-based hand rub (ABHR) with 60-95% alcohol or washing hands with soap and water for at least 20 seconds. Use ABHR for hand hygiene in most clinical situations. If hands are visibly soiled, use soap and water before returning to ABHR. Perform hand hygiene at appropriate times before and after all patient contact, contact with potentially infectious material, and before putting on and after removing PPE.
- Educate residents about COVID-19, how it is spread, and the importance of hand hygiene, wearing face coverings/masks, and social distancing.
- Encourage residents to restrict themselves to their rooms to the extent possible.
- Encourage residents to wear face coverings or masks (if possible) when they must leave their rooms, and to perform hand hygiene when leaving and returning to their rooms.
- To the extent possible, restrict access of ancillary personnel (e.g., dietary) to the unit. To help conserve PPE and prevent transmission of COVID-19, you may consider having dietary trays delivered to the unit (nurse station/central location) and dispersed to resident rooms by staff dedicated to the unit.
- Assign environmental services [EVS] staff to work only on the unit.
    - If there are not a sufficient number of EVS staff to dedicate to this unit despite efforts to mitigate staffing shortages, restrict their access to the unit. Also, assign staff dedicated to the COVID-19 care unit to perform cleaning and disinfection of high-touch surfaces and shared equipment when in the room for resident care activities.Staff should bring an Environmental Protection Agency (EPA)-registered disinfectant (e.g., wipe) from List N into the room and wipe down high touch surfaces (e.g., light switch, doorknob, bedside table). If this responsibility is assigned to EVS personnel, they should wear all recommended PPE when in the room. PPE should be removed upon leaving the room, immediately followed by performance of hand hygiene.
- After discharge, terminal cleaning can be performed by EVS personnel. They should delay entry into the room until time has elapsed for enough air changes to remove potentially infectious particles. After this time has elapsed, EVS personnel can enter the room and should wear well-fitting source

control along with a gown and gloves when performing terminal cleaning. Eye protection should be added if splashes or sprays during cleaning and disinfection activities are anticipated or otherwise required based on the selected cleaning products. Shoe covers are not recommended at this time for SARS-CoV-2.

- Assign dedicated resident care equipment (e.g., vitals machine, BP cuff, weighing scales) to the cohort unit. Cleaning and disinfection of shared equipment should be performed between residents and the equipment should not leave the cohort unit.
- Ensure staff have been trained on when to perform Hand Hygiene and the steps of proper donning and doffing of PPE. Post signage with steps of proper donning and doffing.
- Consider assigning a person to observe staff for proper PPE donning and doffing, and provide just in time education.
- If PPE shortages exist implement strategies to optimize PPE supply on the unit:
    - Bundle care activities to minimize the number of staff entries into a room.
    - Consider extended use of respirators (or facemasks if respirators are not available), eye protection, and gowns. Limited reuse of PPE may also be considered.
    - Consider prioritizing gown use for high-contact resident care activities and activities where splash or spray exposures are anticipated
- When considering when to transfer a recovered resident out of the Hot Unit, follow CDC guidelines for discontinuation of isolation and consult with the medical director.

Observation Unit (Warm Unit): Separate area/unit for observing and managing symptomatic residents who tested negative for COVID-19, residents/roommates who may have been exposed to someone with COVID-19, and new admissions and readmissions whose COVID19 status is unknown. Only patients with the same respiratory pathogen should be housed in the same room.

Note: Fully vaccinated residents and residents within 90 days of a SARS-CoV-2 infection do not need to be placed in quarantine. In general, all unvaccinated residents who are new admissions and readmissions should be placed in 14-day quarantine. Quarantine is not recommended for unvaccinated residents who leave the facility for <24 hrs. (medical appointments, outings). Residents who leave the facility for 24 hrs. or longer should generally be managed as new admissions or readmissions.

- Unvaccinated residents who have had close contact with someone with SARS-CoV-2 infection should be placed in quarantine for 14 days after their exposure, even if viral testing is negative. HCP caring for them should use full PPE (gowns, gloves, eye protection, and N95 or higher-level respirator).
- Fully vaccinated residents who have had close contact with someone with SARS-CoV-2 infection should wear source control and be tested per protocol. They do not need to be quarantined, restricted to their room, or cared for by HCP using the full PPE recommended for the care of a resident with SARs-CoV-2 infection unless they develop symptoms of COVID-19, are diagnosed with SARS-CoV-2, or the facility is directed to do so by public health authority.
- The warm/observation unit should be physically separated from other rooms or units housing residents with confirmed COVID-19 (Hot Unit) and from those of residents who are known to be COVID-19 negative.
- Depending on facility capacity (e.g., staffing, supplies) to care for affected residents, the Warm Unit can be a separate floor, wing, or cluster of rooms. A plastic partition, a temporary wall with door, or another means of physical separation at the entry to the unit may be utilized. The physical barrier provides awareness to anyone entering the area.
- Limit points of entry and exit.
- Place clear signage at the entrance to the Warm Unit that instructs staff they must wear eye protection and an N95 or higher-level respirator (or facemask if a respirator is not available) at all times while on the unit. Gowns and gloves should be added when entering resident rooms.
- Assign dedicated staff (cohort) to work only on the Warm Unit. Staff should not cross to other areas to the extent possible during their shift.

- Staff working on the Warm Unit should ideally have a restroom, break room, and work area that are separate from staff working in other areas of the facility.
- Ensure staff practice source control measures and social distancing where appropriate. See * above.
- Develop a schedule to ensure that high-touch surfaces in staff break rooms and work areas are frequently cleaned and disinfected (e.g., each shift).
- Perform hand hygiene by using alcohol-based hand rub (ABHR) with 60-95% alcohol or washing hands with soap and water for at least 20 seconds. Use ABHR for hand hygiene in most clinical situations. If hands are visibly soiled, use soap and water before returning to ABHR. Perform hand hygiene at appropriate times before and after all patient contact, contact with potentially infectious material, and before putting on and after removing PPE.
- Educate residents about COVID-19, how it is spread, and the importance of hand hygiene, wearing face coverings/masks, and social distancing.
- Encourage residents to restrict themselves to their rooms to the extent possible.
- Encourage residents to wear face coverings or masks (if possible) when they must leave their rooms, and to perform hand hygiene when leaving and returning to their rooms.
- To the extent possible, restrict access of ancillary personnel (e.g., dietary) to the unit.
- Assign environmental services [EVS] staff to work only on the unit.
    - If there are not a sufficient number of EVS staff to dedicate to this unit despite efforts to mitigate staffing shortages, restrict their access to the unit. Also, assign staff dedicated to the Warm Unit to perform cleaning and disinfection of high-touch surfaces and shared equipment when in the room for resident care activities. Staff should bring an Environmental Protection Agency (EPA)-registered disinfectant (e.g., wipe) from List N into the room and wipe down high touch surfaces (e.g., light switch, doorknob, bedside table) before leaving the room. If this responsibility is assigned to EVS personnel, they should wear all recommended PPE when in the room. PPE should be removed upon leaving the room, immediately followed by performance of hand hygiene.
- After discharge, terminal cleaning can be performed by EVS personnel. They should delay entry into the room until time has elapsed for enough air changes to remove potentially infectious particles. After this time has elapsed, EVS personnel can enter the room and should wear well-fitting source control along with a gown and gloves when performing terminal cleaning. Eye protection should be added if splashes or sprays during cleaning and disinfection activities are anticipated or otherwise required based on the selected cleaning products. Shoe covers are not recommended at this time for SARS-CoV-2.
- Assign dedicated resident care equipment (e.g., vitals machine, BP cuff, weighing scales) to the cohort unit. Cleaning and disinfection of shared equipment should be performed between residents and the equipment should not leave the cohort unit.
- Ensure staff have been trained on the steps of proper donning and doffing of PPE. Post signage with steps of proper donning and doffing.
- If PPE shortages exist implement strategies to optimize PPE supply on the unit:
    - Bundle care activities to minimize the number of staff entries into a room.
    - Consider extended use of respirators (or facemasks if respirators are not available), eye protection, and gowns. Limited reuse of PPE may also be considered.
    - Consider prioritizing gown use for high-contact resident care activities and activities where splash or spray exposures are anticipated
- All should be worn during care of residents under observation, which includes use of an N95 or higher-level respirator (or facemask if a respirator is not available), eye protection (i.e., goggles or a disposable face shield that covers the front and sides of the face), gloves, and gown.
- If staff PPE supply is limited, implement strategies to optimize PPE supply, which might include extended use of respirators, facemasks, and eye protection and limiting gown use to high-contact care activities and those where splashes and sprays are anticipated.
- Monitor residents and screen for fever and symptoms for 14 days after admission or after exposure to a positive COVID-19 resident.
- For a resident with new-onset of suspected COVID-19, ensure resident is isolated pending results of SARS-CoV-2 testing. If the resident is confirmed to have COVID-19, transfer the resident to the COVID-19 care Hot Unit.
- Residents can be transferred out of the observation area or from a single to a multi-resident room if they remain afebrile and without symptoms for 14 days after their last exposure (e.g., date of admission).

COVID-19 Negative (Cold Unit): During an outbreak of COVID-19, a designated unit/area for current, healthy, asymptomatic residents.

- **The cold unit should be physically separated from other rooms or units housing residents with confirmed COVID-19 (Hot Unit), and from those whose COVID-19 status is unknown and residents/roommates who may have been exposed to someone with COVID-19 (Warm Unit).**
- Newly admitted and readmitted residents with COVID-19 who have met criteria for discontinuation of Transmission-Based Precautions can go to a regular/cold unit. If Transmission-Based Precautions have been discontinued, but the resident with COVID-19 remains symptomatic (i.e., persistent symptoms or chronic symptoms above baseline), they can be housed on a regular/cold unit but should remain in a private room until symptoms resolve or return to baseline. These individuals should remain in their rooms to the extent possible during this time period. If they must leave their rooms, facilities should reinforce adherence to universal source control policies and social distancing [e.g., perform frequent hand hygiene, have the resident wear a cloth face covering or facemask (if tolerated) and remain at least 6 feet away from others when outside of their room].
- Depending on facility capacity (e.g., staffing, supplies) to care for affected residents, the Cold Unit can be a separate floor, wing, or cluster of rooms. A plastic partition, a temporary wall with a door, or another means of physical separation at the entry to the unit may be utilized. The physical barrier provides awareness to anyone entering the area.
- Limit points of entry and exit.
- Place clear signage at the entrance to the Cold Unit that instructs staff they must wear eye protection and an N95 or higher-level respirator (or facemask if a respirator is not available) at all times while on the unit (during outbreak). Gowns and gloves should be added when entering resident rooms.
- Assign dedicated staff to work only on the Cold Unit. Staff should not cross to other areas to the extent possible during their shift.
- Staff working on the Cold Unit should ideally have a restroom, break room, and work area that are separate from staff working in other areas of the facility.
- Ensure staff practice source control measures and social distancing where appropriate. See * above.
- Perform hand hygiene by using alcohol-based hand rub (ABHR) with 60-95% alcohol or washing hands with soap and water for at least 20 seconds. Use ABHR for hand hygiene in most clinical situations. If hands are visibly soiled, use soap and water before returning to ABHR. Perform hand hygiene at appropriate times before and after all patient contact, contact with potentially infectious material, and before putting on and after removing PPE.
- Educate residents about COVID-19, how it is spread, and the importance of hand hygiene, wearing face coverings/masks, and social distancing.
- Encourage residents to restrict themselves to their rooms to the extent possible.
- Encourage residents to wear face coverings or masks (if possible) when they must leave their rooms, and to perform hand hygiene when leaving and returning to their rooms.
- To the extent possible, restrict access of ancillary personnel (e.g., dietary) to the unit.
- Assign environmental services [EVS] staff to work only on the unit.
    - If there are not a sufficient number of EVS staff to dedicate to this unit despite efforts to mitigate staffing shortages, restrict their access to the unit. Also, assign staff dedicated on the Cold Unit to perform cleaning and disinfection of high-touch surfaces and shared equipment when in the room for resident care activities. Staff should bring an Environmental Protection Agency (EPA)-registered disinfectant (e.g., wipe) from List N into the room and wipe down high touch surfaces (e.g., light switch, doorknob, bedside table) before leaving the room.
- Develop a schedule to ensure that high-touch surfaces in staff break rooms and work areas are frequently cleaned and disinfected (e.g., each shift).

- Assign dedicated resident care equipment (e.g., vitals machine, BP cuff, weighing scales) to the unit. Cleaning and disinfection of shared equipment should be performed between residents and the equipment should not leave the unit.
- Ensure staff have been trained on the steps of proper donning and doffing of PPE. Post signage with steps of proper donning and doffing.
- If PPE shortages exist implement strategies to optimize PPE supply on the unit:
    - Bundle care activities to minimize the number of staff entries into a room.
    - Consider extended use of respirators (or facemasks if respirators are not available), eye protection, and gowns. Limited reuse of PPE may also be considered.
    - Consider prioritizing gown use for high-contact resident care activities and activities where splash or spray exposures are anticipated
- If staff PPE supply is limited, implement strategies to optimize PPE supply, which might include extended use of respirators, facemasks, and eye protection and limiting gown use to high-contact care activities and those where splashes and sprays are anticipated.
- Monitor residents and screen for fever and symptoms of COVID-19.
- For a resident with new-onset of suspected COVID-19, ensure resident is isolated pending results of SARS-CoV-2 testing. If the resident is confirmed to have COVID-19, transfer the resident to the COVID-19 care Hot Unit.

References:

https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html
https://www.cdc.gov/coronavirus/2019-ncov/hcp/long-term-care.html
https://www.cms.gov/files/document/qso-20-39-nh-revised.pdf
https://www.cms.gov/files/document/qso-20-38-nh-revised.pdf

During a COVID-19 outbreak response, symptomatic residents, regardless of vaccination status, should be restricted to their rooms and cared for by HCP using a NIOSH-approved N95 or equivalent or higher-level respirator, eye protection (goggles or a face shield) that covers the front and sides of the face) gloves, and a gown pending evaluation for SARS-CoV-2 infection.

During a COVID-19 outbreak response, unvaccinated residents should generally be restricted to their rooms, even if testing is negative, and cared for by HCP using an N95 or higher-level respirator, eye protection (goggles or a face shield) that covers the front and sides of the face), gloves and gown. They should not participate in group activities.

Close contacts, if known, should be managed as described in Section: Manage Residents who had Close Contact with Someone with SARS-CoV-2 Infection, of **Interim Infection Prevention and Control Recommendations to Prevent SARS-CoV-2 Spread in Nursing Homes.**

In areas of substantial to high transmission in which healthcare personnel (HCP) are using eye protection for all patient encounters, extended use of eye protection may be considered as a conventional capacity strategy.

For guidance about work restriction for unvaccinated HCP who are identified to have had higher-risk exposures, refer to Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2.