

MEMORANDUM

To: Prehospital Response Personnel

From: Daniel Shepherd, MD 
Ventura County EMS Agency Medical Director

Re: Updated SARS-CoV-2 Prehospital Guidelines (Version 10)

Date: January 13, 2022

Summary of changes in v10, effective January 13th, 2022:

- Addition of more basic Infection Prevention and Control (IPC) practices.
- Added current knowledge Omicron.
- Removed Delta information.
- Recognition that we are all tired.
- Provided education about healthy behaviors to support immunity and mental wellbeing.
- CDPH finally acknowledged this is an airborne pathogen
 - AFL 21-08.7 – “SARS-CoV-2 is an airborne pathogen, infectious persons are commonly asymptomatic, and the Omicron variant is extremely more contagious than the Delta variant.”
- N-95 should be the preferred PPE for source control.
- Updated Isolation and Quarantine guidance following EMSA Memorandum.

The rapid increase of COVID-19 cases attributed by the Omicron variant has prompted the Ventura County Public Health (VCPH) department to urge unvaccinated individuals to get a COVID-19 vaccine and vaccinated individuals to get a booster dose. In addition, the community at large is advised to continue to adhere to the implementation of Infection Prevention and Control (IPC) practices. Recent data suggests that COVID-19 vaccination decreases the risk of severe disease, hospitalization, and death. General basic infection control measures- such as proper hand hygiene, cough etiquette, staying home when sick, equipment disinfection, and the utilization of appropriate Personal Protective Equipment (PPE)- continue to be considered best practices for reducing disease transmission within the community.

As the Omicron variant of the COVID-19 virus continues to spread across the US, it appears to be milder in presentation compared to previous strains. However, the Omicron variant does appear to be more contagious and appears to have a higher rate of re-infection than previous variants. Evidence indicates that the Omicron variant is

more likely to infect the throat than the lungs, which may explain why it appears to be more infectious and less deadly than other variants of the disease. The rapid spread of Omicron may suggest that we will see a shorter-lived surge than in the past, but that current measures will likely remain in place through February.

It is evident that this winter surge is putting strain on our healthcare system due to critical staffing shortages, exhausted providers, and generalized mental fatigue being experienced by frontline staff members. As a transmission mitigation measure, we encourage the utilization of a well-fitted N-95 mask while in the immediate vicinity of colleagues and the public. Additionally, VCPH encourages eating a balanced diet, staying hydrated, getting adequate rest, exercising routinely, and getting Vitamin D (sunlight) to reduce the likelihood of illness and mental strain.

Emergency Medical Services (EMS) recommendations are based on the most up-to-date clinical recommendations and information from public health authorities. EMS plays a vital role in responding to medical emergencies, triaging patients, and providing emergency medical treatment and transportation for ill or injured persons. Below are some key points to remember regarding SARS-CoV-2:

- SARS-CoV-2 is an airborne pathogen. Infectious persons are commonly asymptomatic, and the Omicron variant is much more contagious than the Delta variant.
- EMS personnel have a higher chance of encountering SARS-CoV-2 patients due to responding to multiple calls per day over a variety of geographic areas and entering different types of facilities (businesses, correctional facilities, long-term care facilities, residential homes, etc.).
- An infected person can spread COVID-19 two days prior to having any symptoms (or, if they are asymptomatic, two days before the positive specimen was collected).
- Implementing the universal use of Personal Protective Equipment (PPE), such as a well-fitted N-95 mask, is imperative to keeping prehospital personal protected.
- While the use of universal precautions is not new to EMS personnel, COVID-19 requires greater protection—especially when performing Aerosol Generating Procedures (AGP).
- When responding to patients suspected of having a SARS-CoV-2 infection, close coordination and effective communication are important aspects among the 911 Public Safety Answering Points/Emergency Communication Centers (PSAP/ECC).
- Symptoms for SARS-CoV-2 vary in complexity and severity and can range anywhere from severe respiratory illness to a mild sore throat. It's not uncommon for patients with SARS-CoV-2 to be completely asymptomatic.
- All patients (if tolerated), regardless of COVID-19 symptoms, should be instructed to practice source control. Contact should be minimized as much as possible until a cloth face covering or facemask is on the patient.
- The most effective ways to prevent infection and/or transmission are by:
 - Practicing frequent hand hygiene, especially after every patient contact
 - Wearing all recommended PPE (healthcare providers)
 - Extended use of N-95 respirators should be the preferred method of source control
 - Vaccination
 - Encouraging all patients to wear a mask
 - Cleaning and disinfecting surfaces
 - Avoiding face touching while working
 - Changing attire before getting into personal vehicle after work
 - Washing uniforms after every shift. Change uniforms during a shift if it is suspected that a uniform has become soiled following a patient contact

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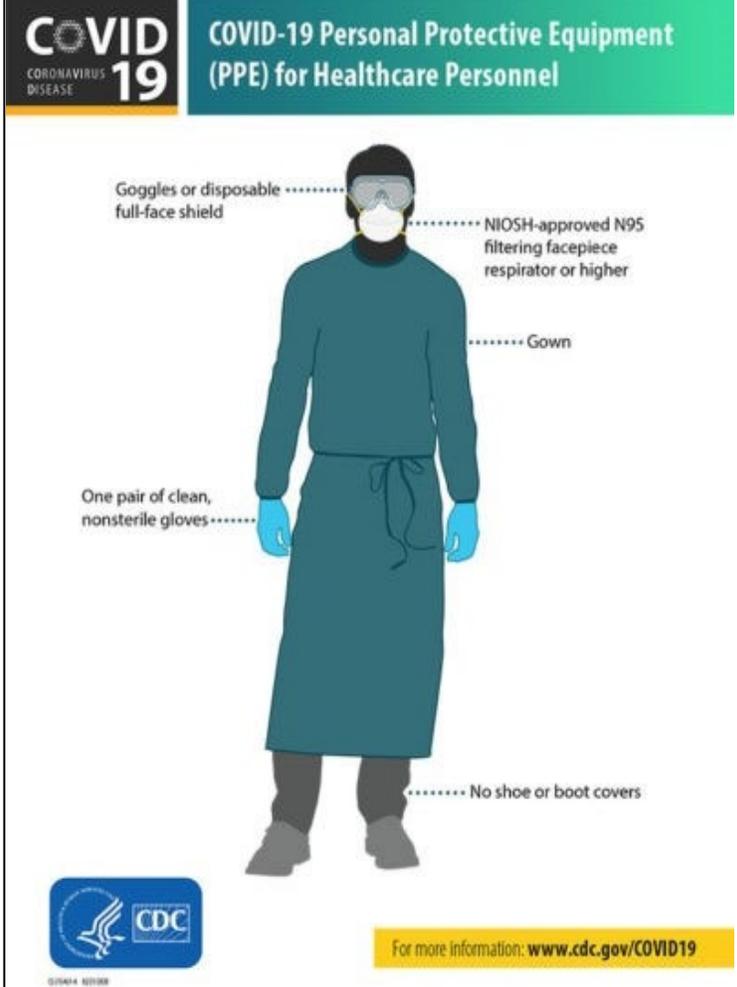
If SARS-CoV-2 infection is not suspected:

1. N95 is preferred per CDC, but a well-fitting surgical mask may be used
 - o A NIOSH-approved N95 or equivalent or higher-level respirator for all aerosol-generating procedures (AGPs)
 - o A NIOSH-approved N95 or equivalent or higher-level respirator for **unvaccinated personnel**
2. Gloves
3. Eye Protection
4. **PATIENT SHOULD ALSO HAVE A PROCEDURE MASK APPLIED IMMEDIATELY**

If SARS-CoV-2 infection is suspected:

IMPLEMENT FULL PPE FOR PATIENT CONTACTS WHERE PRE-NOTIFICATION FROM DISPATCH OCCURS, AND/OR WHERE THERE IS CONCERN FOR COVID-19 (SIGNS AND SYMPTOMS OF ACUTE RESPIRATORY ILLNESS SUCH AS FEVER, COUGH, SHORTNESS OF BREATH, DIFFICULTY BREATHING AND/OR GASTROINTESTINAL SYMPTOMS SUCH AS ABDOMINAL PAIN, NAUSEA/VOMITING AND/OR DIARRHEA) OR RECENT HISTORY (<2 weeks) OF SARS-CoV-2 exposure:

1. Gloves
2. GOWN OR NFPA 1999-2013 APPROVED BLOODBORNE PATHOGEN PROTECTIVE CLOTHING
3. GOGGLES OR DISPOSABLE FULL-FACE SHIELD
 - a. Protective eyewear (e.g., safety glasses, trauma glasses) with gaps between glasses and the face likely do not protect eyes from all splashes and sprays.
 - b. Personal eyeglasses and contact lenses are NOT considered adequate eye protection.
4. N95 OR HIGHER* (IF AVAILABLE) RESPIRATOR
*N100, P100, OR AIR PURIFYING RESPIRATOR (APR)
5. **ALL PATIENTS SHOULD HAVE A SURGICAL MASK APPLIED IMMEDIATELY**



General Guidelines / Best Practices

- **Full PPE:** EMS personnel should continue to adhere to [Standard](#) and [Transmission-Based Precautions](#), including use of eye protection and/or an N95 or equivalent or higher-level respirator based on anticipated exposures and suspected or confirmed diagnoses.
- Assume that possible COVID-19 patients may have called for EMS assistance with a non-respiratory complaint. Be prepared and screen every patient for signs and symptoms until you are able to rule out respiratory illness.
- Begin assessment from a distance of at least six feet and ensure the patient dons a procedure mask as soon as possible.
- Limit the number of providers that make patient contact based on the patient's condition and level of care needed.
- Do not rely on dispatch pre-arrival instructions and PPE recommendations to catch all possible COVID-19 cases. Maintain a high degree of suspicion and repeat screening *on every call, for every patient*. Protect yourself and your prehospital teammates.
- Have all necessary PPE ready and available on every single call.
- Ask the patient if they have tested positive for COVID-19 or if they have been exposed to someone that has tested positive. If the answer to either of these questions is yes, treat the patient as positive for COVID-19.
- **If you are EVER in doubt about a patient's status, don full PPE. Limit your exposure and protect yourselves and your fellow first responders/prehospital personnel!**

Treatment and Transport Guidelines

- Limit treatment activities unless the patient has an unstable condition that requires intervention.

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- Ensure every patient is wearing a procedure mask.
- Ensure all personnel are wearing appropriate PPE.
 - If the ambulance does not have an isolated driver's compartment, the driver should remove the goggles, gloves, and gown or NFPA rated clothing and perform hand hygiene. An N95 respirator should continue to be used during transport.
- If a nasal cannula is used, a facemask should be worn over the cannula.
- Nebulized albuterol has no documented clinical benefit over the administration of albuterol via metered dose inhaler with a spacer. If available, use the patient's MDI with a spacer and defer nebulizer treatment.
 - Dose of MDI is 4 puffs x 1, then 2 puffs q 15 min prn shortness of breath and/or wheezing.
 - If a nebulizer treatment must be given, attempt to perform in an open setting (e.g. outside of ambulance).
- CPAP and nebulizer treatments should be discontinued prior to entering the Emergency Department.
 - Place the patient in a nonrebreather mask and titrate supplemental oxygen to a goal oxygen saturation of > 94%. If possible, use a lower flow setting (12 LPM) to reduce potential for aerosolization.
- Advise the base hospital whenever oxygen therapy is being administered, regardless of device/flow setting. If you don't feel CPAP or nebulizer therapy can be discontinued, advise ahead of time so that the receiving facility can take appropriate actions prior to ambulance arrival.
- Remember – Full PPE is essential for any prehospital personnel caring for patients that require any respiratory intervention(s).
 - An N95 or higher-level respirator, gown or NFPA 1999-2013 rated protective clothing, and goggles or disposable full-face shield shall be worn when any aerosolizing procedure is performed.
 - BVMS, and other ventilatory equipment, should be equipped with HEPA filtration to filter expired air – if available.
 - EMS systems should consult their ventilator equipment manufacturer to confirm appropriate filtration capability and the effect of filtration on positive-pressure ventilation.
 - If possible, the rear doors of the stationary transport vehicle should be opened and the HVAC system should be activated during AGPs. This should be done away from pedestrian traffic.
 - If possible, discontinue AGPs prior to entering the destination facility or communicate prior to arrival.
- Family members should only be taken as a rider in the event that the patient is an unaccompanied minor or has some other special circumstance that limits the personnel's ability to assess the patient.
- Ensure the ambulance's ventilation system is in non-recirculating mode in order to maximize the volume of fresh air brought into the vehicle from the outside. Utilize the exhaust fan in the ambulance patient compartment to draw air out of the vehicle.
- If transported, ensure that the exhaust vent is on in the patient compartment to draw air out.
- Establish base hospital contact as soon as possible and advise of "possible COVID-19 patient." Include signs and symptoms, history of present illness, and any other relevant information.
- For cases of unprotected exposure to a high-risk or confirmed COVID-19 patient, notify agency supervisor.

Decontamination of Gear and Equipment

- Decontamination of gear and equipment should be performed in PPE.
- Dispose of disposable respirator, respirator filters (if applicable), gown, and gloves in accordance with your agency's policy/protocol. Conservation of scarce resources should be practiced in accordance with your agency's established policy/protocol.
 - The [VCPH Donning and Doffing Personal Protective Equipment video](#) can be utilized for training purposes.
- Non-disposable items should be cleaned with an approved cleaning solution, in accordance with manufacturer's recommendation and established agency guidelines
 - Cleaning should happen prior to disinfection; some chemicals are both cleaners and disinfectants
 - Ensure that the chemical used is listed on the EPA [List N](#) as a hospital-grade disinfectant. Refer to the product's label for the appropriate *contact time*
 - **Contact time:** Time a disinfectant is in direct contact with the surface or item to be disinfected. For surface disinfection, the surface must remain visibly wet for the entire contact time.
 - In most cases, fogging, fumigation, and wide-area or electrostatic spraying are not recommended as primary methods of surface disinfection and have several safety risks to consider, unless specified as a method of application on the product label.

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- NFPA 1999-2013 protective clothing that is visibly contaminated with bodily fluid should be washed following the agency's prescribed laundry procedures.
- Ambulances used to transport symptomatic patients should be cleaned utilizing approved commercially available cleaning products or diluted bleach solution (1/4 cup bleach in 1 gallon of water). Refer to agency guidelines in regard to authorized cleaning procedures.

Ambulance Considerations

Considerations for vehicle configuration when transporting a patient with suspected or confirmed SARS-CoV-2 infection

- Isolate the ambulance driver from the patient compartment and keep pass-through doors and windows tightly shut.
- When possible, use vehicles that have isolated driver and patient compartments that can provide separate ventilation to each area.
 - Before entering the isolated driver's compartment, the driver (if they were involved in direct patient care) should remove and dispose of PPE and perform hand hygiene to avoid soiling the compartment.
 - Close the door/window between these compartments before bringing the patient on board.
 - During transport, vehicle ventilation in both compartments should be on non-recirculated mode to maximize air changes that reduce potentially infectious particles in the vehicle.
 - If the vehicle has a rear exhaust fan, use it to draw air away from the cab, toward the patient-care area, and out the back end of the vehicle.
 - After patient unloading, allowing a few minutes with ambulance module doors open will rapidly dilute airborne viral particles.
- If a vehicle without an isolated driver compartment must be used, open the outside air vents in the driver area and turn on the rear exhaust ventilation fans to the highest setting to create a pressure gradient toward the patient area.
 - Before entering the driver's compartment, the driver (if they were involved in direct patient care) should remove their gown, gloves and eye protection and perform hand hygiene to avoid soiling the compartment. They should continue to wear their NIOSH-approved N95 or equivalent or higher-level respirator.

Miscellaneous Items / Points to Remember

- Hand Hygiene remains the number one way to protect yourself and others
 - EMS personnel should perform hand hygiene by using alcohol-based hand sanitizer (ABHS) with 60-95% alcohol.
 - Hand sanitizing should also be methodical and mindful, ensuring the entire surface of the hand is covered with ABHS.
 - After hand sanitizing, the surface of the hand should remain wet for 20 seconds.
 - If hands are visibly soiled, EMS personnel must wash hands with soap and water.
 - Hand hygiene should be done prior to donning gloves, in between patients, after contact with environmental surfaces, prior to donning PPE, after doffing PPE, and after touching one's face.
- **Aerosol Generating Procedures (AGPs):** Some procedures performed on COVID-19 patients could generate infectious aerosols. In particular, procedures that are likely to induce coughing (e.g., sputum induction, open suctioning of airways) should be performed cautiously and avoided if possible. EMS clinicians should exercise caution if an aerosol-generating procedure [e.g., bag valve mask (BVM) ventilation, oropharyngeal suctioning, endotracheal intubation, nebulizer treatment, continuous positive airway pressure (CPAP)], or resuscitation involving emergency intubation or cardiopulmonary resuscitation (CPR) is necessary. If possible, consult with medical control for specific guidance before performing aerosol-generating procedures.
- Continue to use the CDC exposure risk assessment and guidelines issued by CDC ([link below](#)) for further information on COVID-19 exposure categories.
- Ensure crew rosters are accurate in CAD. In the event there is an exposure, this information may be helpful in the crew identification and notification process.
- To reduce contamination and possible exposure, minimize loose and uncovered equipment in the patient compartment area.

The current authorized vaccinations in the United States have been shown to be effective at protecting the population from severe disease and death from COVID-19. Due to the critical staffing shortages currently being experienced across the healthcare continuum, the California Department of Public Health (CDPH) has released an All Facilities Letter (AFL) that provides a temporary blanket waiver from January 8, 2022 through February 1, 2022 from the return-to-work criteria for health care workers. On January 8, 2022, the Emergency Medical Services Authority (EMSA) communicated that Emergency Medical Services (EMS) personnel can operate under the guidance outlined in [AFL 21-08.7](#).

EMS providers should continue to use the [CDC's risk assessment framework](#) to determine exposure risk for prehospital personnel who have potentially been exposed to patients, visitors, or other individuals with confirmed COVID-19 while working in the field. Additionally, EMS could implement additional strategies found in the [CDC guidance for contingency and crisis management to mitigate the effects of staff shortages](#) during this surge.

CDPH AFL conditions that during this severe staffing shortage, Health Care Providers (HCP) who have tested positive for SARS-CoV-2 and who are **asymptomatic** may return to work immediately without isolation and without testing, and HCP's who have been exposed and who are asymptomatic may return to work immediately without quarantine and without testing. These HCP's **must wear a N-95 respirator** for source control. Facilities implementing this change must have made every attempt to bring in additional registry or contract staff and must have considered modifications to non-essential procedures.

The sections below on isolation and quarantine are temporarily waived from January 8, 2022 to February 1, 2022.

Work Restrictions for HCP with SARS-CoV-2 Infection (Isolation)

Vaccination Status	Routine	Critical Staffing Shortage
Boosted, OR Vaccinated but not booster-eligible	5 days* with negative diagnostic test† same day or within 24 hours prior to return OR 10 days without a viral test	<5 days with most recent diagnostic test† result to prioritize staff placement†
Unvaccinated, OR Those who are vaccinated and booster-eligible but have not yet received their booster dose	7 days* with negative diagnostic test† same day or within 24 hours prior to return OR 10 days without a viral test	5 days with most recent diagnostic test† result to prioritize staff placement†

Work Restrictions for Asymptomatic HCP with Exposures (Quarantine)

Vaccination Status	Routine	Critical Staffing Shortage
Boosted, OR Vaccinated but not booster-eligible	No work restriction with negative diagnostic test [†] upon identification and at 5-7 days	No work restriction with diagnostic test [†] upon identification and at 5-7 days
Unvaccinated [§] , OR Those who are vaccinated and booster-eligible but have not yet received their booster dose [§]	7 days with diagnostic test [†] upon identification and negative diagnostic test [†] within 48 hours prior to return	No work restriction with diagnostic test [†] upon identification and at 5-7 days

**Asymptomatic or mildly symptomatic with improving symptoms, and meeting negative test criteria; facilities should refer to CDC guidance for HCP with severe to critical illness or moderately to severely immunocompromised.*

† Either an antigen test or nucleic acid amplification test (NAAT) can be used. Some people may be beyond the period of expected infectiousness, but remain NAAT positive for an extended period of time. Antigen tests typically have a more rapid turnaround time but are often less sensitive than NAAT. Antigen testing is preferred for discontinuation of isolation and return-to-work for SARS-CoV-2 infected HCP’s and for HCP’s who have recovered from SARS-CoV-2 infection in the prior 90 days; NAAT is also acceptable if done and negative within 48 hours of return.

‡ If most recent test is positive, then HCP’s may provide direct care only for patients/residents with confirmed SARS-CoV-2 infection, preferably in a cohort setting.

§ Includes persons with prior infection.

HCP’s whose most recent test is positive and are working before meeting routine return-to-work criteria must maintain separation from other HCP’s as much as possible (i.e. use a separate breakroom and restroom) and wear a N-95 respirator for source control at all times while in the facility. Similarly, exposed unvaccinated and vaccinated HCP’s who are booster-eligible but have not yet received their booster dose and who are working during their quarantine period should also wear a N-95 respirator for source control at all times while in the facility until they meet routine return-to-work criteria. In addition, healthcare facilities should make N-95 respirators available to any HCP who wishes to wear one when not otherwise required to for the care of patients or residents with suspected or confirmed COVID-19.

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Exposure	Personal Protective Equipment (PPE) used	Work Restriction for HCP who have received all COVID-19 vaccine and booster doses as recommended by CDC	Work Restriction for HCP who have received all COVID-19 vaccine and booster doses as recommended by CDC
<p>Higher-risk: HCP who had prolonged¹ close contact² with a patient, visitor, or HCP with confirmed SARS-CoV-2 infection³</p>	<ul style="list-style-type: none"> HCP not wearing a respirator (or if wearing a facemask, the person with SARS-CoV-2 infection was not wearing a cloth mask or facemask)⁴ HCP not wearing eye protection if the person with SARS-CoV-2 infection was not wearing a cloth mask or facemask HCP not wearing all recommended PPE (i.e., gown, gloves, eye protection, respirator) while performing an aerosol-generating procedure¹ 	<ul style="list-style-type: none"> In general, no work restrictions.⁵ Perform SARS-CoV-2 testing immediately (but generally not earlier than 24 hours after the exposure) and, if negative, again 5-7 days after the exposure.⁶ Follow all recommended infection prevention and control practices, including wearing well-fitting source control, monitoring themselves for fever or symptoms consistent with COVID-19, and not reporting to work when ill or if testing positive for SARS-CoV-2 infection. Any HCP who develop fever or symptoms consistent with COVID-19 should immediately self-isolate and contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing. 	<p>Option 1:</p> <ul style="list-style-type: none"> Exclude from work. HCP can return to work after day 7 following the exposure (day 0) if a viral test⁶ is negative for SARS-CoV-2 and HCP do not develop symptoms. The specimen should be collected and tested within 48 hours before the time of planned return to work (e.g., in anticipation of testing delays). <p>Option 2:</p> <ul style="list-style-type: none"> Exclude from work. HCP can return to work after day 10 following the exposure (day 0) if they do not develop symptoms. Although the residual risk of infection is low, healthcare facilities could consider testing⁶ for SARS-CoV-2 within 48 hours before the time of planned return. <p>In addition to Options above:</p> <ul style="list-style-type: none"> Follow all recommended infection prevention and control practices, including wearing well-fitting source control, monitoring themselves for fever or symptoms consistent with COVID-19, and not reporting to work when ill or if testing positive for SARS-CoV-2 infection. Any HCP who develop fever or symptoms consistent with COVID-19 should immediately

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			contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing.
Lower-risk: HCP with exposure risk other than those described as higher-risk above	N/A	<ul style="list-style-type: none"> No work restrictions or testing. Follow all recommended infection prevention and control practices, including monitoring themselves for fever or symptoms consistent with COVID-19 and not reporting to work when ill. Any HCP who develop fever or symptoms consistent with COVID-19 should immediately self-isolate and contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing. 	<ul style="list-style-type: none"> No work restrictions or testing. Follow all recommended infection prevention and control practices, including monitoring themselves for fever or symptoms consistent with COVID-19 and not reporting to work when ill. Any HCP who develop fever or symptoms consistent with COVID-19 should immediately self-isolate and contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing.

Footnotes:

- Data are insufficient to precisely define the duration of time that constitutes a prolonged exposure. Until more is known about transmission risks, it is reasonable to consider an exposure of 15 minutes or more as prolonged. This could refer to a single 15-minute exposure to one infected individual or several briefer exposures to one or more infected individuals adding up to at least 15 minutes during a 24-hour period. However, the presence of extenuating factors (e.g., exposure in a confined space, performance of aerosol-generating procedure) could warrant more aggressive actions even if the cumulative duration is less than 15 minutes. For example, **any duration** should be considered prolonged if the exposure occurred during performance of an [aerosol generating procedure](#).
- Data are limited for the definition of close contact. For this guidance it is defined as: a) being within 6 feet of a person with confirmed SARS-CoV-2 infection or b) having unprotected direct contact with infectious secretions or excretions of the person with confirmed SARS-CoV-2 infection. Distances of more than 6 feet might also be of concern, particularly when exposures occur over long periods of time in indoor areas with poor ventilation.
- Determining the time period when the patient, visitor, or HCP with confirmed SARS-CoV-2 infection could have been infectious:
 - For individuals with confirmed COVID-19 who developed symptoms, consider the exposure window to be 2 days before symptom onset through the time period when the individual meets [criteria for discontinuation of Transmission-Based Precautions](#)

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- b. For individuals with confirmed SARS-CoV-2 infection who never developed symptoms, determining the infectious period can be challenging. In these situations, collecting information about when the asymptomatic individual with SARS-CoV-2 infection may have been exposed could help inform the period when they were infectious.
 - i. If the date of exposure cannot be determined, although the infectious period could be longer, it is reasonable to use a starting point of 2 days prior to the positive test through the time period when the individual meets criteria for discontinuation of Transmission-Based Precautions for contact tracing.
4. While respirators confer a higher level of protection than facemasks and are recommended when caring for patients with SARS-CoV-2 infection, facemasks still confer some level of protection to HCP, which was factored into this risk assessment if the patient was also wearing a cloth mask or facemask.
5. Circumstances when work restriction might be recommended:
 - a. HCP are **moderately to severely immunocompromised**.
 - b. When directed by public health authorities (e.g., during an outbreak where SARS-CoV-2 infections are identified among HCP who have received all COVID-19 vaccine doses, including booster dose, as recommended by [CDC](#))
 - i. In the event of ongoing transmission within a facility that is not controlled with initial interventions, strong consideration should be given to use of work restriction of HCP with higher-risk exposures who have received all COVID-19 vaccine doses, including booster dose, as recommended by CDC. In addition, there might be other circumstances for which the jurisdiction's public health authority recommends these and additional precautions.
6. Either an antigen test or NAAT can be used. Some people may be beyond the period of expected infectiousness but remain NAAT positive for an extended period. Antigen tests typically have a more rapid turnaround time but are often less sensitive than NAAT. Antigen testing is preferred for symptomatic HCP and for asymptomatic HCP who have recovered from SARS-CoV-2 infection in the prior 90 days.

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Immunocompromised: For the purposes of this guidance, moderate to severely immunocompromising conditions include, but might not be limited to:

- Active treatment for solid tumor and hematologic malignancies
- Receipt of solid-organ transplant and taking immunosuppressive therapy
- Receipt of chimeric antigen receptor (CAR)-T-cell or hematopoietic stem cell transplant (within 2 years of transplantation or taking immunosuppression therapy)
- Moderate or severe primary immunodeficiency (e.g., DiGeorge syndrome, Wiskott-Aldrich syndrome)
- Advanced or untreated HIV infection (people with HIV and CD4 cell counts <200/mm³, history of an AIDS-defining illness without immune reconstitution, or clinical manifestations of symptomatic HIV)
- Active treatment with high-dose corticosteroids (i.e., ≥20mg prednisone or equivalent per day when administered for ≥2 weeks), alkylating agents, antimetabolites, transplant-related immunosuppressive drugs, cancer chemotherapeutic agents classified as severely immunosuppressive, tumor-necrosis (TNF) blockers, and other biologic agents that are immunosuppressive or immunomodulatory. Other factors, such as end-stage renal disease, may pose a much lower degree of immunocompromise and not clearly affect decisions about need for work restriction if the healthcare provider had close contact with someone with SARS-CoV-2 infection. However, fully vaccinated people in this category should consider continuing to practice physical distancing and use of source control while in a healthcare facility, even when not otherwise recommended for fully vaccinated individuals.
- Ultimately, the degree of immunocompromise for the healthcare provider is determined by the treating provider, and preventive actions are tailored to each individual and situation.

To read the full guidance document go to [Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2](#)