

# Coronavirus Disease 2019 (COVID-19)



On February 11, 2020 the World Health Organization [announced](#) an official name for the disease that is causing the current outbreak of coronavirus disease, COVID-19. CDC will be updating our website and other CDC materials to reflect the updated name.

## Healthcare Infection Prevention and Control FAQs for COVID-19

### Page Summary

**Who is this for:** Healthcare personnel who may care for patients who are confirmed with or under investigation for COVID-19.

**What is it for:** This creates FAQs to support the existing [Healthcare Infection Prevention and Control Guidance for COVID-19](#).

**How is it used:** To assist healthcare facilities in preventing transmission of COVID-19 in healthcare settings.

### 1. What personal protective equipment (PPE) should be worn by individuals transporting patients who are confirmed with or under investigation for COVID-19 within a healthcare facility? For example, what PPE should be worn when transporting a patient to radiology for imaging that cannot be performed in the patient room?

In general, transport and movement of the patient outside of an Airborne Infection Isolation Room (AIIR) should be limited to medically essential purposes. If being transported outside of the room, such as to radiology, healthcare personnel (HCP) in the receiving area should be notified in advance of transporting the patient. For transport, the patient should wear a facemask to contain secretions and be covered with a clean sheet.

If transport personnel must prepare the patient for transport (e.g., transfer them to the wheelchair or gurney), transport personnel should wear [all recommended PPE](#) (gloves, a gown, respiratory protection that is at least as protective as a tested NIOSH-certified disposable N95 filtering facepiece respirator and eye protection [i.e., goggles or disposable face shield that covers the front and sides of the face]) This recommendation is needed because these interactions typically involve close, often face-to-face, contact with the patient in an enclosed space (e.g., patient room). Once the patient has been transferred to the wheelchair or gurney (and prior to exiting the room), transporters should remove their gown, gloves, and eye protection and perform hand hygiene.

If the patient is wearing a facemask, no recommendation for PPE is made typically for HCP transporting patients with respiratory infection from the patient's room to the destination. However, given current limitations in knowledge regarding COVID-19 and following the currently cautious approach for [risk stratification and monitoring of healthcare personnel caring for patients with COVID-19](#), use of a facemask by the transporter is recommended for anything more than brief encounters with COVID-19 patients. For convenience, if the transporter was involved in transferring the patient to the wheelchair or gurney as described above, the transporter could also continue to wear their respirator (after removing all other PPE) instead of replacing it with a facemask. Additional PPE should not be required unless there is an anticipated need to provide medical assistance during transport (e.g., helping the patient replace a dislodged facemask).

After arrival at their destination, receiving personnel (e.g., in radiology) and the transporter (if assisting with transfer) should perform hand hygiene and wear [all recommended PPE](#). If still wearing their original respirator, the transporter should take care to avoid self-contamination when donning the remainder of the recommended PPE. This cautious approach will be refined and updated as more information becomes available and as response needs change in the United States.

Interim guidance for EMS personnel transporting patients with confirmed or suspected COVID-19 is [available here](#). EMS personnel should wear all recommended PPE because they are providing direct medical care and in close contact with the patient for longer periods of time.

## 2. If a patient does not strictly meet the criteria for being a [person under investigation \(PUI\) for COVID-19](#), does that mean that COVID-19 is ruled out and I do not need to follow the [recommended infection prevention and control practices for healthcare personnel](#)?

In other countries, healthcare settings have been shown to be centers for transmission of coronaviruses to healthcare personnel, patients, and visitors. Considering this, additional caution might be needed for patients requiring hospitalization to reduce the risk of coronavirus transmission in these high-risk settings.

The criteria for the PUI definitions are intended to serve as guidance for public health evaluation. However, failure to meet a [PUI definition](#) does not definitively exclude the possibility of COVID-19. Patients should be evaluated and discussed with public health departments on a case-by-case basis if their clinical presentation or exposure history are equivocal. (This is particularly true for patients requiring admission to the hospital). Reliance on the PUI definition should never impede or override clinical judgement during the diagnosis, management, and treatment of ill patients.

All patients should be managed using Standard Precautions. Transmission-Based Precautions should be added to Standard Precautions based on the [patient's clinical syndrome and the likely etiologic agents](#). They can be modified once the pathogen is identified or a transmissible infectious etiology is ruled out. For example, if COVID-19 is suspected, the patient should be managed using Standard, Contact, and Airborne Precautions with eye protection until the diagnosis is excluded.

## 3. What PPE should be worn by HCP providing care to asymptomatic patients with a history of exposure to [COVID-19](#) who are being evaluated for a non-infectious complaint (e.g., hypertension or hyperglycemia)?

Standard Precautions should be followed when caring for any patient, regardless of suspected or confirmed COVID-19. If the patient is afebrile ( $T < 100.0^{\circ}\text{F}$ ) and otherwise without even mild symptoms\* that might be consistent with COVID-19 (e.g., cough, sore throat, shortness of breath), then precautions specific to COVID-19 are not required. However, until a patient is determined to be without such symptoms, HCP should wear all recommended PPE (i.e., gown, gloves, N-95 or higher-level respirator and eye protection) for the patient encounter. If the primary evaluation confirms the patient is without symptoms, management and need for any Transmission-Based Precautions should be based with the condition for which they are being evaluated (e.g., patient colonized with a drug-resistant organism), rather than potential exposure to COVID-19.

This public health response is an important opportunity to reinforce the importance of strict adherence to Standard Precautions during all patient encounters. Standard Precautions are based on the principles that all blood, body fluids, secretions, excretions except sweat, nonintact skin, and mucous membranes may contain transmissible infectious agents. The application of Standard Precautions is determined by the nature of the HCP-patient interaction and the extent of anticipated blood, body fluids, and pathogen exposure. For example, a facemask and eye protection should be worn during the care of any patient if splashes, sprays, or coughs could occur during the patient encounter. Similarly, gloves should be worn if contact with body fluids, mucous membranes, or nonintact skin are anticipated.

\*Note: In addition to cough and shortness of breath, nonspecific symptoms such as sore throat, myalgia, fatigue, nausea, and diarrhea have been noted as initial symptoms in some cases of COVID-19. These symptoms can have several alternative explanations; however, failure to identify and implement proper precautions in a healthcare setting for persons infected with COVID-19 can contribute to widespread transmission in that facility due to the presence of susceptible patients and close interactions with healthcare personnel. For this reason, a lower temperature of  $100.0^{\circ}\text{F}$  and the inclusion of mild and non-specific symptoms should be used by healthcare settings evaluating these patients to increase the ability to detect even mild cases of COVID-19.

## **4. Is an Airborne Infection Isolation Room (AIIR) required to evaluate all patients with confirmed COVID-19 and those under investigation for COVID-19 (PUIs)?**

In a healthcare setting, evaluation of PUIs and those with confirmed COVID-19 should occur in either an AIIR or an examination room with the door closed. The room should ideally not have exhaust that is recirculated within the building without high-efficiency particulate air (HEPA) filtration. PUIs or patients with confirmed disease who require hospitalization should preferably be cared for in an AIIR. If an AIIR is not immediately available, consideration should be given to transferring the patient to a facility that has an available AIIR.

In situations where a region is managing multiple PUIs and confirmed cases that require hospitalization, there might not be a sufficient number of AIIRs to care for all of these patients. In that circumstance, AIIRs should be prioritized for the care of hospitalized patients who are symptomatic with severe illness (e.g., those requiring ventilator support) and for those needing procedures that could generate infectious aerosols (e.g., sputum induction, open suctioning of airways). If this situation occurs, public health can help inform a regional plan for evaluation and management of any additional cases that are identified. Regardless of the presence of an AIIR, healthcare personnel should wear all recommended personal protective equipment (i.e., gown, gloves, N-95 or higher-level respirator and eye protection) when caring for these patients.

CDC is actively assessing the progress of this outbreak for any evidence of efficient airborne transmission. As we gain more insight into the transmission dynamics of this virus we will refine or revise this recommendation.

## 5. If HCP did not wear a gown but wore all other recommended personal protective equipment (i.e., N-95 respirator, goggles and gloves) when providing care to a patient with confirmed COVID-19, what risk exposure category would apply for monitoring and assigning work restrictions?

The Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with Coronavirus Disease 2019 (COVID-19) describes factors to consider when assigning risk. These include: the duration of exposure (e.g., longer exposure time likely increases exposure risk), clinical symptoms of the patient (e.g., coughing likely increases exposure risk), whether the patient was wearing a facemask (which can efficiently block respiratory secretions from contaminating others and the environment), whether an aerosol generating procedure was performed, and the type of PPE used by HCP.

If HCP did not have extensive body contact with the patient (e.g., rolling the patient) and were not engaged in an aerosol-generating procedure (e.g., sputum induction, open suctioning of airways), failure to wear a gown would generally be considered low-risk. HCP in the low-risk category are not restricted from work and should undergo self-monitoring with delegated supervision. If there was extensive body contact or engagement in an aerosol-generating procedure then HCP might be considered medium-risk, warranting active monitoring and exclusion from work. Additional details about the interaction with the patient could inform this determination.

Healthcare facilities should consult with public health authorities when assigning risk and determining need for work restrictions.

## 6. What personal protective equipment (PPE) should be worn by environmental services (EVS) personnel who clean and disinfect rooms of hospitalized patients with COVID-19?

In general, only essential personnel should enter the room of patients with COVID-19. Healthcare facilities should consider assigning daily cleaning and disinfection of high-touch surfaces to nursing personnel who will already be in the room providing care to the patient. If this responsibility is assigned to EVS personnel, they should wear a gown, gloves, N-95 or higher-level respirator, and eye protection when in the room. PPE should be removed upon leaving the room, immediately followed by performance of hand hygiene.

After discharge, terminal cleaning may be performed by EVS personnel. They should delay entry into the room until a [sufficient time has elapsed](#) for enough air changes to remove potentially infectious particles. We do not yet know how long SARS-CoV-2 remains infectious in the air. In the interim, it is reasonable to apply a similar time period before entering the room without respiratory protection as used for pathogens spread by the airborne route (e.g., measles, tuberculosis). EVS personnel should wear a gown and gloves when performing terminal cleaning. A facemask and 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 personnel caring for patients with COVID-19.

## 7. What are recommended practices for terminal cleaning of rooms of hospitalized patients with COVID-19?

Standard practices using an EPA-registered, hospital-grade disinfectant with an emerging viral pathogens claim are recommended for use against SARS-CoV-2. If there are no available EPA-registered products with an approved viral pathogen claim, products with label claims against human coronavirus should be used in accordance with label instructions.

Additional information about recommended practices for environmental cleaning procedures are available in the [Int](#) Infection Prevention and Control Recommendations for Patients with Confirmed COVID-19 or Persons Under Investigation for COVID-19 in Healthcare Settings.

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