

Preparing Outpatient Hemodialysis Facilities for COVID-19

**Dialysis Team, Prevention and Response Branch,
Division of Healthcare Quality Promotion,
Centers for Disease Control and Prevention**

March 26, 2020

Presentation Objectives

- Describe current epidemiology of COVID-19
- Review how outpatient hemodialysis facilities should prepare for patients with COVID-19
- Review other CDC resources for COVID-19

COVID-19 is the abbreviation for Coronavirus Disease 2019

'CO' stands for 'corona'

'VI' stands for 'virus'

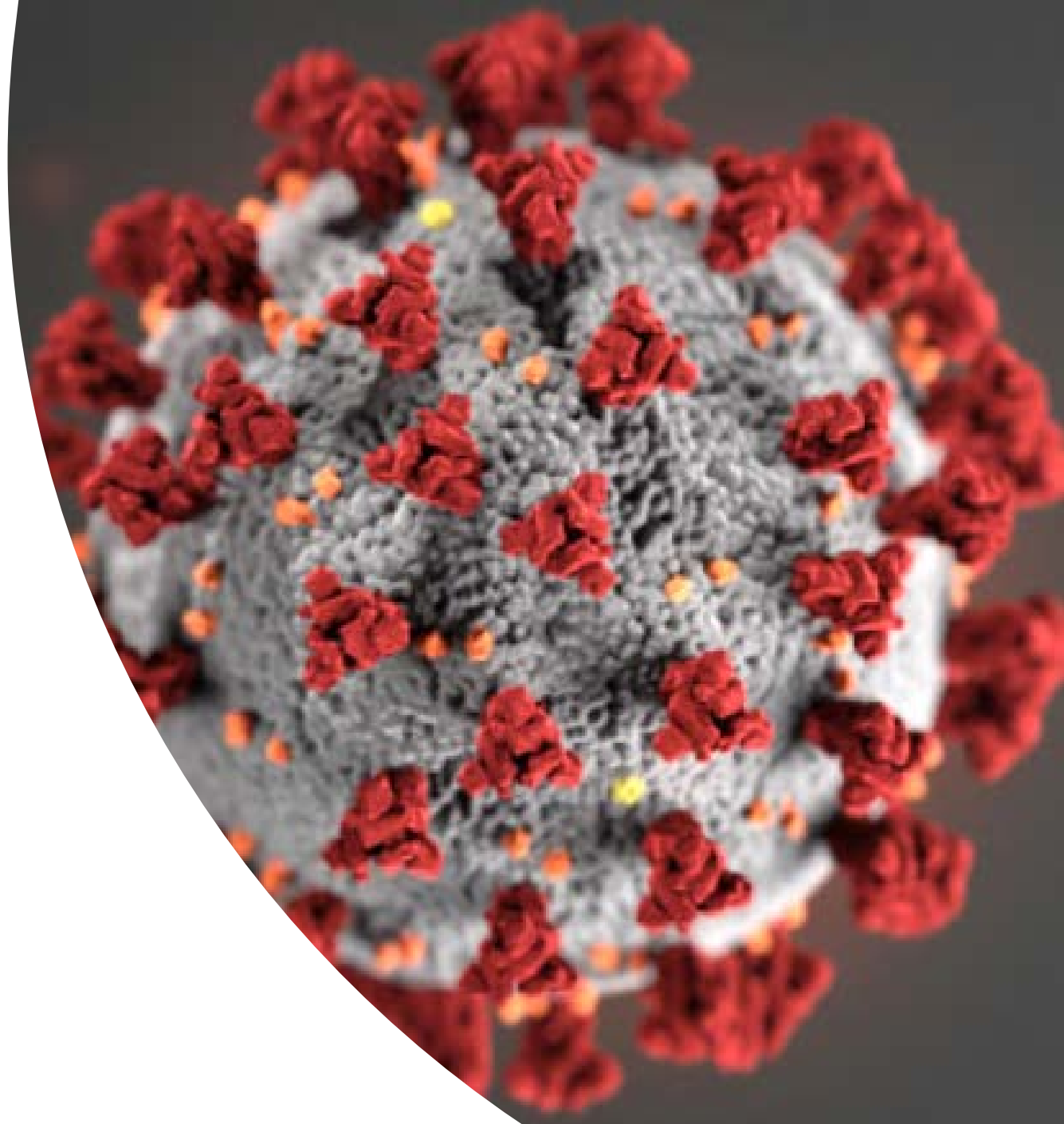
'D' stands for 'disease'

'19' refers to 2019

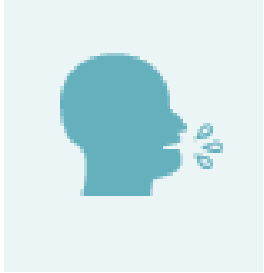
COVID-19

What is COVID-19?

- COVID-19 is a respiratory illness
- Caused by SARS-CoV-2, a type of virus called a 'coronavirus'
 - Related to SARS-CoV and MERS-CoV
- This novel (new) coronavirus was first detected in China
- On January 31, 2020, Health and Human Services Secretary Alex M. Azar II declared a public health emergency for the United States



How COVID-19 Spreads*



- **Person-to-person spread** is the primary mode of transmission
 - Between people in close contact with one another (about 6 feet)
 - Through respiratory droplets when an infected person coughs or sneezes



- **Contact with infected surfaces or objects**
 - It may be possible to get COVID-19 by touching surfaces and then touching your mouth, nose, or eyes

*COVID-19 is a new disease and we are still learning how it spreads

COVID-19 Signs and Symptoms

- It takes between 2-14 days for symptoms to start
- Common symptoms: Fever, cough, sore throat, shortness of breath, muscle aches, fatigue
- Less common symptoms: sputum production, headache, diarrhea
- Initial symptoms might be mild and fever might be absent



COVID-19 Clinical Course and Management

- Clinical presentation varies from asymptomatic to mild to severe or fatal illness
 - Mortality rate likely varies by age. Mortality rates among confirmed COVID-19 patients in one report¹:
 - 0.2% for patients <40 years
 - 8% for patients 70-79 years
 - 14.8% for patients at least 80 years
- Clinical signs and symptoms may worsen with progression to lower respiratory tract disease in the second week of illness
- No specific treatment for COVID-19 is currently available
- Clinical management includes prompt infection prevention and control measures and supportive management of complications

¹Chinese CDC. CCDC Weekly 2020; 8:113-122.

Centers for Disease Control and Prevention

MMWR

Morbidity and Mortality Weekly Report

Early Release / Vol. 69

March 18, 2020

**Severe Outcomes Among Patients with Coronavirus Disease 2019 (COVID-19) —
United States, February 12–March 16, 2020**

CDC COVID-19 Response Team

Preparing for COVID-19 in the Outpatient Hemodialysis Setting

Background

- These recommendations supplement the CDC's [Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 \(COVID-19\) or Persons Under Investigation for COVID-19 in Healthcare Settings](#).
- This information is provided to clarify COVID-19 infection prevention and control (IPC) recommendations that are specific to outpatient hemodialysis facilities.

Educate Patients

- Provide information about COVID-19
- Describe actions the facility is taking to protect them
- Provide education about hand hygiene, respiratory hygiene, and cough etiquette
 - How to use facemasks
 - How to use tissues to cover nose and mouth when coughing or sneezing
 - Appropriate disposal of tissues and contaminated items in waste receptacles
 - How to perform hand hygiene

Educate Healthcare Personnel

- Provide information about COVID-19
- Provide information on infection prevention and control measures and explain how they protect HCP and patients with an emphasis on:
 - Hand hygiene
 - Selection/use of personal protective equipment (PPE), including practicing how to put on, use, and take off PPE

Managing Ill HCP and Monitoring for Symptoms

- Implement sick leave policies that are non-punitive and flexible
- Explain how they can serve as a source of infections in the facility
 - **Advise HCP not to report to work when ill**
- If HCP develop fever or symptoms of respiratory illness (e.g., cough, sore throat, shortness of breath) while at work
 - They should put on a facemask and return home
- Implement active screening (temp and symptoms) of HCP before their shift:
 - During times of community transmission
 - If COVID-19 patients in facility

Ensure Access to PPE and Other Supplies

- Conduct an inventory of PPE
- Make PPE accessible, including: Respirators (if available and facility has respiratory protection program); Facemasks; Gowns; Gloves; Eye protection (i.e., face shield or goggles)
- Provide alcohol-based hand sanitizer with 60-95% alcohol and tissues in waiting and treatment areas

Prepare the Waiting Area

- Post signs at clinic entrances with instructions for patients with fever or symptoms of respiratory infection to alert staff so appropriate precautions can be implemented.
- Have space in waiting areas for ill patients to sit separated from other patients by at least 6 feet.
- Provide tissues, alcohol-based hand rub (ABHR), and trash cans.
- Post signs about hand hygiene, respiratory hygiene, and cough etiquette.

Plans for Triaging Patients

- Come up with a plan to identify patients with fever or symptoms of respiratory infections **before** they enter the treatment area
 - Instruct patients to call ahead to report fever or respiratory symptoms, which allows facility to:
 - Plan ahead for their arrival OR
 - Direct them to the hospital
 - Ask patients about fever or respiratory symptoms when they arrive at facility
 - Put facemask on symptomatic patients; facemask should be worn for the duration of their stay in the facility
 - Bring symptomatic patients back to an appropriate treatment areas as soon as possible. If not possible, medically stable patients should:
 - Sit separated from other patients by at least 6 feet
 - Wait in a personal vehicle or outside the facility until it is their turn



Coronavirus Disease 2019 (COVID-19)

[CDC](#) > [Coronavirus Disease 2019 \(COVID-19\)](#) > [Healthcare Facilities](#) > [Dialysis Facilities](#)



Coronavirus Disease 2019 (COVID-19)

[How to Prepare](#) +

[Symptoms & Testing](#) +

[Are You at Higher Risk for Severe Illness?](#) +

[If You Are Sick or Caring for Someone](#) +

[Frequently Asked Questions](#)

[Travel](#) +

[Cases & Latest Updates](#) +

Screening and Triage at Intake

Screening Dialysis Patients for COVID-19

Key Concepts

To limit the spread of COVID-19, it is important to promptly identify, separate, and put facemasks on those patients who are ill. Screening patients before they enter the facility:

- Reduces exposures for other patients and healthcare personnel
- Helps prevent the spread of disease within the facility
- Helps ensure personal protective equipment (PPE) is used effectively

Screen Patients for COVID-19 at Intake

Facilities should make sure triage procedures are compliant with HIPAA guidance and consider a multi-step screening

On This Page

[Key Concepts](#)

[Screen Patients for COVID-19 at Intake](#)

[Considerations for Staff](#)

[After a Patient is Screened](#)

<https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/dialysis/screening.html>

Determine Appropriate Placement for Symptomatic Patients

- Patient may need to be transferred to another facility for the following reasons
 - Based on patient's clinical symptoms, a higher level of care may be required
 - OR
 - In cases of suspected or confirmed, COVID-19, if the facility is unable to comply with CDC's [Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 \(COVID-19\) or Persons Under Investigation for COVID-19 in Healthcare Settings](#). If COVID-19 is suspected, the health department should also be notified.
- If transferring the patient to another facility, inform the receiving facility and transport personnel of the suspected diagnosis

Placement of Symptomatic Patients During Dialysis Treatment

- Maintain at least 6 feet of separation between masked, symptomatic patients and other patients.
- Ideally, symptomatic patients would be dialyzed in a separate room (if available) with the door closed.
- If a separate room is not available:
 - Perform treatment 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).
 - If the patient is unable to tolerate a mask, then they should be separated by at least 6 feet from the nearest patient **station** (in all directions).

Placement of Symptomatic Patients During Dialysis Treatment cont.

- Hepatitis B isolation rooms should only be used for patients with symptoms of respiratory infection if:
 - The patient is hepatitis B surface antigen positive
 - OR
 - The facility has no patients on the census with hepatitis B infection who would require treatment in the isolation room.

Placement of Symptomatic Patients During Dialysis Treatment cont.

- If a hemodialysis facility is dialyzing more than one patient with respiratory symptoms, consideration should be given to cohorting these patients and the HCP caring for them together in the section of the unit and/or on the same shift
 - Consider the last shift of the day.
- If the etiology of respiratory symptoms is **known**, patients with different etiologies should **not** be cohorted
 - For example, patients with confirmed influenza and COVID-19 should not be cohorted.

Personal Protective Equipment (PPE) for Undiagnosed Respiratory Infections

- HCP caring for patients with **undiagnosed respiratory infections** should follow Standard, Contact, and Droplet Precautions with eye protection unless the suspected diagnosis requires Airborne Precautions (e.g., tuberculosis).
 - Isolation gown
 - Gloves
 - Facemask
 - Eye protection
- Position a trash can near the dialysis station for ease of discarding PPE

Additional Information About Isolation Gowns

- Isolation gown
 - The isolation gown should be worn over or instead of the cover gown that is normally worn by hemodialysis personnel.
 - When gowns are removed, place the gown in a dedicated container for waste or linen before leaving the dialysis station.
 - Disposable gowns should be discarded after use.
 - Cloth gowns should be laundered after each use.

Additional Information About Eye Protection

- Eye protection
 - Goggles
 - OR
 - Disposable face shield that covers the front and sides of the face
 - Personal glasses and contact lenses are NOT considered adequate eye protection.

When COVID-19 is Suspected or Confirmed

- Additional Measures:
 - Notify the health department about the patient
 - Know your local and state health department point of contacts:
 - Contact information for the healthcare-associated infections program in each state health department is available here: <https://www.cdc.gov/hai/state-based/index.html>
 - Follow the [Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 \(COVID-19\) or Persons Under Investigation for COVID-19 in Healthcare Settings.](#)
 - **This includes recommendations on PPE**
 - Airborne Infection Isolation Rooms (AIIRs) are not required

Environmental Cleaning and Disinfection

- Routine cleaning and disinfection procedures are appropriate for COVID-19 in dialysis settings.
 - Ensure HCP have access to EPA-registered, hospital-grade disinfectants
 - Refer to the EPA-website for List N: Disinfectants for Use Against SARS-CoV-2: <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>
 - When using products from List N, facilities should ensure the products also have a bloodborne pathogen claim (e.g., hepatitis B, HIV).
- Any surface, supplies, or equipment located within 6 feet of symptomatic patients should be disinfected or discarded.



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How to Prepare +

Symptoms & Testing +

Are You at Higher Risk for Severe Illness? +

If You Are Sick or Caring for Someone +

Frequently Asked Questions

Travel +

Cases & Latest Updates +

Schools, Workplaces & Community Locations +

Healthcare Professionals +

Healthcare Facilities -

Steps Healthcare Facilities Can Take

Interim Additional Guidance for Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed COVID-19 in Outpatient Hemodialysis Facilities

Background

These recommendations should be used with the CDC's [Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 \(COVID-19\) or Persons Under Investigation for COVID-19 in Healthcare Settings](#). This information is provided to clarify COVID-19 infection prevention and control (IPC) recommendations that are specific to outpatient hemodialysis facilities. This information complements, but does not replace, the general IPC recommendations for COVID-19.

This guidance is based on the currently available information about COVID-19. This approach will be refined and updated as more information becomes available and as response needs change in the United States. It is important to stay informed about COVID-19 to prevent introduction and minimize spread of COVID-19 in your dialysis facility. Consult with public health authorities to understand if community transmission of COVID-19 is occurring in your community.

Coronavirus Disease 2019 (COVID-19) Outpatient Dialysis Facility Preparedness Assessment Tool



All U.S. outpatient dialysis facilities should be prepared for the possible arrival of patients with Coronavirus Disease 2019 (COVID-19). All outpatient dialysis facilities should ensure their staff are trained, equipped, and capable of patient care needed to:


- Prevent the spread of respiratory infections, including COVID-19, within the dialysis facility.
- Promptly identify and isolate patients with possible COVID-19 and inform the correct dialysis facility staff and public health authorities.
- Provide dialysis for a limited number of patients with confirmed or suspected COVID-19 as part of routine operations.
- Remotely provide dialysis for a larger number of COVID-19 patients in the event of an existing outbreak.
- Monitor and manage any health care personnel that might be exposed to COVID-19.
- Communicate effectively within the dialysis facility and plan for appropriate internal communication related to COVID-19.

The following checklist is a list of essential components of a facility's preparedness for COVID-19. Outpatient dialysis facilities are to prepare for potential arrival of COVID-19 patients.

Elements to be assessed

1. Infection prevention and control policies and training for healthcare personnel (HCP)	Completed	In progress	Not started
Facility has developed policy, but not tested for the facility's effectiveness; policy, medical director, facility administrator, nurse manager, infection prevention personnel, chief operating officer, and emergency response personnel has reviewed the Centers for Disease Control and Prevention's COVID-19 guidance for dialysis facilities. https://www.cdc.gov/coronavirus/2019-ncov/dialysis-facilities.html	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Facility provides education and job-specific training to HCP regarding COVID-19 including:			
Signs and symptoms of infection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Importance of hand hygiene, respiratory hygiene, and cough etiquette.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use of personal protective equipment (PPE), including competency evaluation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Isolation procedures and patient placement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HCP sick leave policies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self-monitoring for fever or respiratory symptoms and subsequent reporting and when to report.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reviewed facility's emergency and disaster COVID-19 plans, should be updated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

www.cdc.gov/coronavirus

[COVID-19 Outpatient Dialysis Facility Preparedness Assessment Tool](#) 
[PDF - 245 KB]

<https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/dialysis.html>

Other CDC Resources

[Coronavirus Disease 2019 \(COVID-19\)](#)

[How to Prepare](#) +

[Symptoms & Testing](#) +

[Are You at Higher Risk for Severe Illness?](#) +

[If You Are Sick or Caring for Someone](#) +

[Frequently Asked Questions](#)

[Travel](#) +

[Cases & Latest Updates](#) +

[Schools, Workplaces & Community Locations](#) +

[Healthcare Professionals](#) +

Criteria for Return to Work for Healthcare Personnel with Confirmed or Suspected COVID-19 (Interim Guidance)

CDC guidance for COVID-19 may be adapted by state and local health departments to respond to rapidly changing local circumstances.

Who this is for: Occupational health programs and public health officials making decisions about return to work for healthcare personnel (HCP) with confirmed COVID-19, or who have suspected COVID-19 (e.g., developed symptoms of a respiratory infection [e.g., cough, sore throat, shortness of breath, fever] but did not get tested for COVID-19).

Decisions about return to work for HCP with confirmed or suspected COVID-19 should be made in the context of local circumstances. Options include a test-based strategy or a non-test-based strategy (i.e., time-since-illness-onset and time-since-recovery strategy).

Return to Work Criteria for HCP with Confirmed or Suspected COVID-19

On This Page

[Return to Work Criteria for HCP with Confirmed or Suspected COVID-19](#)

[Return to Work Practices and Work Restrictions](#)

[Crisis Strategies to Mitigate Staffing Shortages](#)

<https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/hcp-return-work.html>



Coronavirus Disease 2019 (COVID-19)

CDC > Coronavirus Disease 2019 (COVID-19) > Healthcare Professionals



Coronavirus Disease 2019 (COVID-19)

How to Prepare +

Symptoms & Testing +

Are You at Higher Risk for Severe
Illness? +

If You Are Sick or Caring for
Someone +

Frequently Asked Questions

Travel +

Cases & Latest Updates +

Schools, Workplaces &
Community Locations +

Healthcare Professionals —

Evaluating and Testing PUI

Post-exposure Guidance

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 (COVID-19)

March 7, 2020

Summary of Recent Changes

Update: This Interim Guidance was updated on March 7, 2020 to make the following changes:

- Updating recommendations regarding HCP contact tracing, monitoring, and work restrictions in selected circumstances. These include allowances for asymptomatic HCP who have had an exposure to a COVID-19 patient to continue to work after options to improve staffing have been exhausted and in consultation with their occupational health program. (See Additional Considerations and Recommendations at the end of the document)
- Removed requirement under “self monitoring with delegated supervision” for healthcare facilities to actively verify absence of fever and respiratory symptoms when healthcare personnel (HCP) report for work. This is now optional.
- Simplified risk exposure categories based on most common scenarios with focus on presence/absence of source control measures; use of personal protective equipment (PPE) by HCP; and degree of contact with the patient (i.e., prolonged versus brief)
- Added language advising HCP to inform their occupational health program if they have travel or

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html>

Coronavirus Disease 2019 (COVID-19)

How to Prepare +

Symptoms & Testing +

Are You at Higher Risk for Severe
Illness? +

If You Are Sick or Caring for
Someone +

Frequently Asked Questions

Travel +

Cases & Latest Updates +

Schools, Workplaces &
Community Locations +

Healthcare Professionals —

Discontinuation of Transmission-Based Precautions and Disposition of Patients with COVID-19 in Healthcare Settings (Interim Guidance)

CDC guidance for COVID-19 may be adapted by state and local health departments to respond to rapidly changing local circumstances.

Summary Page

Who this is for: Healthcare personnel managing patients with coronavirus disease 2019 (COVID-19).

What this is for: To help prevent the spread of the virus that causes COVID-19 in healthcare facilities.

How to use: Reference to guide healthcare regarding discontinuing transmission-based precautions and discharging hospitalized patients with COVID-19.

Summary of Recent Changes

Guidance as of March 23, 2020

- Clarified that patients with COVID-19 can be discharged from a healthcare facility whenever clinically indicated. Meeting criteria for discontinuation of Transmission-Based Precautions is not a prerequisite for discharge.
- Updated guidance for a test-based strategy: The recommendation to collect both NP and OP swabs at each sampling has been changed so that only one

Coronavirus Disease 2019 (COVID-19)

How to Prepare +

Symptoms & Testing +

Are You at Higher Risk for Severe Illness? +

If You Are Sick or Caring for Someone +

Frequently Asked Questions

Travel +

Cases & Latest Updates +

Schools, Workplaces & Community Locations +

Healthcare Professionals —

Discontinuation of Home Isolation for Persons with COVID-19 (Interim Guidance)

CDC guidance for COVID-19 may be adapted by state and local health departments to respond to rapidly changing local circumstances.

Summary Page

Who this is for:

Healthcare providers and public health officials managing persons with coronavirus disease 2019 (COVID-19) under home isolation.

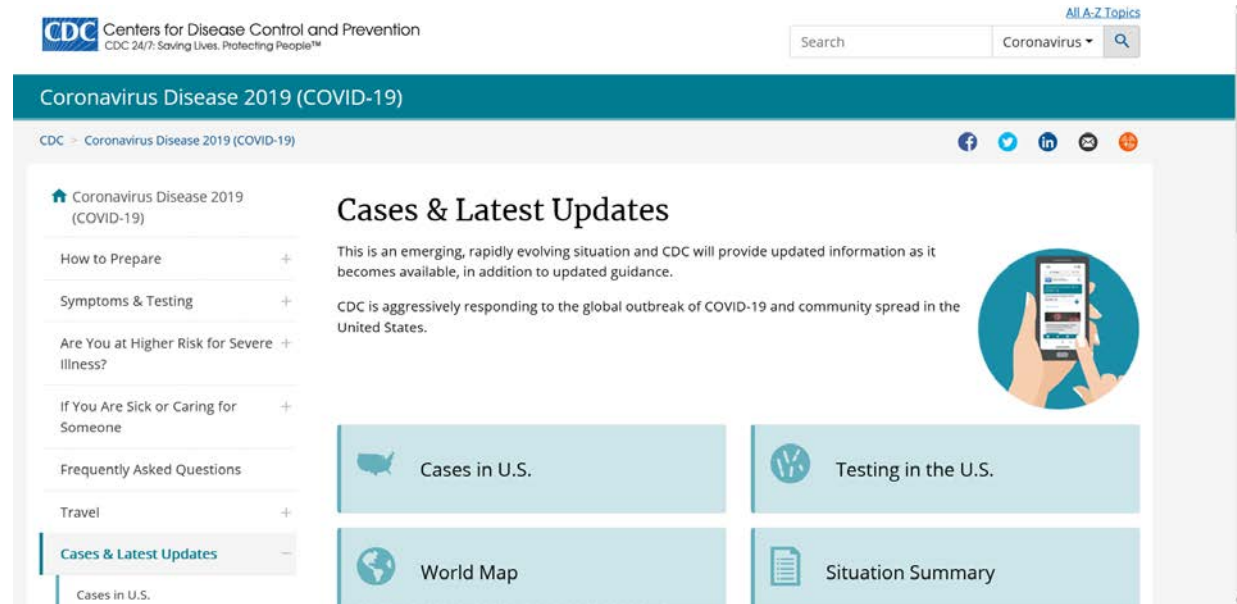
Summary of Recent Changes

Guidance as of March 16, 2020

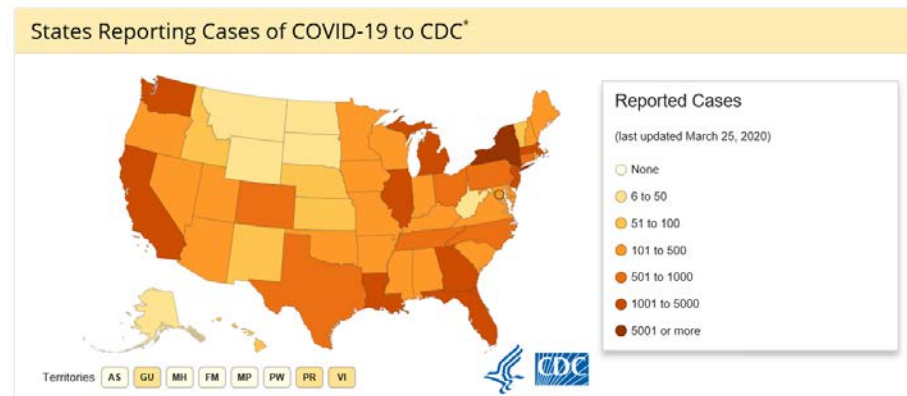
- New guidance is added for a strategy to discontinue home isolation without testing.
- Updated guidance for a test-based strategy: The recommendation to collect both NP and OP swabs at each sampling has been changed so that only one swab is necessary, preferably NP, at each sampling.

Limited information is available to characterize the spectrum of clinical illness, transmission efficiency, and the duration of viral shedding for persons with novel coronavirus disease (COVID-19). This guidance is based on available information about COVID-19 and subject to change as additional information becomes available.

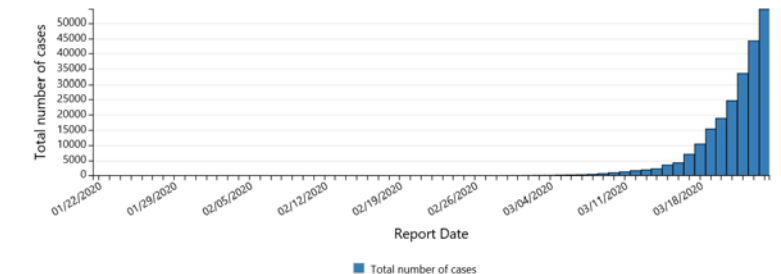
COVID-19 Situational Status



- Web page updated regularly
- <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/index.html>



Cumulative total number of COVID-19 cases in the United States by report date, January 12, 2020, to March 24, 2020, at 4pm ET (n=54,453)
*



Coronavirus Disease 2019 (COVID-19)

CDC > Coronavirus Disease 2019 (COVID-19) > Healthcare Professionals

Coronavirus Disease 2019 (COVID-19)

How to Prepare

+

Symptoms & Testing

+

Are You at Higher Risk for Severe Illness?

+

If You Are Sick or Caring for Someone

+

Frequently Asked Questions

Travel

+

Cases & Latest Updates

+

Schools, Workplaces & Community Locations

+

Healthcare Professionals

—

Strategies for Optimizing the Supply of PPE

Eye Protection

Isolation Gowns

Facemasks

N95 Respirators

Page last reviewed: March 17, 2020

Content source: National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>

Reporting PPE Shortages

- If your facility is concerned about a potential or imminent shortage of PPE, alert your state/local health department and local healthcare coalition, as they are best positioned to help facilities troubleshoot through temporary shortages.
- Link to identifying your state HAI coordinator:
<https://www.cdc.gov/hai/state-based/index.html>
- Link to healthcare coalition/preparedness:
<https://www.phe.gov/Preparedness/planning/hpp/Pages/find-hc-coalition.aspx>

Preserving PPE Supply in Times of Shortage cont.

- Implement extended use of eye and face protection (respirator or facemask)
 - Extended use means HCP remove only gloves and gowns (if used) and perform hand hygiene between patients while continuing to wear the same eye protection and respirator or facemask (i.e., extended use).
 - The same eye protection and respirator or facemask can also be worn (without removing) for repeated contacts with the same patient.
 - HCP must take care not to touch their eye protection and respirator or facemask.
 - Eye protection and the respirator or facemask should be removed and hand hygiene performed if they become damaged or soiled and when leaving the unit.

Preserving PPE Supply in Times of Shortage

- Prioritize isolation gowns for aerosol-generating procedures, care activities where splashes and sprays are anticipated, and high-contact patient care activities:
 - Initiating and terminating dialysis treatment, manipulating access needles or catheters, helping the patient into and out of the station, and cleaning and disinfection of patient care equipment and the dialysis station

CDC Web Resources

- Infection Prevention and Control Guidance for Healthcare Settings:
 - <https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html>
- Steps Healthcare Facilities Can Take Now to Prepare
 - <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/steps-to-prepare.html>
- People at Risk for Serious Illness
 - <https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/high-risk-complications.html>
- Healthcare Infection Prevention and Control FAQs
 - <https://www.cdc.gov/coronavirus/2019-ncov/infection-control/infection-prevention-control-faq.html>
- Videos
 - <https://www.cdc.gov/coronavirus/2019-ncov/communication/videos.html>

Thank You!

Questions?

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

National Center for Emerging and Zoonotic Infectious Diseases
Division of Healthcare Quality Promotion

