



Quarantine and Isolation

Interim Guidance for Ships on Managing 2019 Novel Coronavirus

Early detection, prevention, and control of 2019 Novel Coronavirus (2019-nCoV) on ships is important to protect the health of travelers on ships and to avoid transmission of the virus by disembarking passengers and crew members who are suspected of having 2019-nCoV.

The latest situation summary updates are available on CDC's web page [2019 Novel Coronavirus](#).

Purpose

This document provides guidance for ships originating from, or stopping in, the United States to help prevent, detect, and medically manage suspected 2019-nCoV infections. As ships travel worldwide, ship management and medical staff need to be aware and respond to local jurisdictional requirements.

A patient's travel and exposure history, clinical presentation, and underlying medical conditions are essential in the assessment and decision making process for patients who may need for further medical evaluation, testing, and treatment.

This document provides guidance for preventing spread of 2019-nCoV during and after a voyage, including personal protective measures for crew members.

CDC will update this interim guidance to ships as needed and as additional information becomes available.

Reducing the spread

Commercial shipping, including cruise ships and other passenger vessels, involves the movement of large numbers of people in closed and semi-closed settings. Like other close-contact environments, ships may facilitate transmission of respiratory viruses from person to person through exposure to respiratory droplets or contact with contaminated surfaces.

To reduce spread of respiratory infections including 2019-nCoV, CDC recommends that ships encourage crew members and passengers to

- Postpone travel when sick
- Watch their health
- Self-isolate and inform the onboard medical center immediately if they develop a fever (100.4°F / 38°C or higher), begin to feel feverish, or develop other signs or symptoms of sickness
- Use respiratory, cough, and hand hygiene
 - Advise passengers and crew of the importance of covering coughs and sneezes with a tissue. Dispose used tissues immediately in a disposable container (e.g., plastic bag) or a washable trash can.

- Remind passengers and crew members to wash their hands often with soap and water, especially after coughing or sneezing. If soap and water are not available, they can use a hand sanitizer containing 60%-95% alcohol).

Clinical evaluation of suspect cases

Identifying and isolating passengers and crew with possible symptoms of 2019-nCoV as soon as possible is needed to minimize transmission of this virus. Cruise ship medical personnel and telemedicine providers should reference CDC's 2019-nCoV website [Information Healthcare Professionals](#) for the latest information on infection control, clinical management, collecting clinical specimens, and evaluating patients who may be sick with or who have been exposed to 2019-nCoV.

Symptoms may include fever, cough, and shortness of breath. Patients have a fever if they feel warm to the touch, give a history of feeling feverish, or have a measured temperature of 100.4°F (38°C) or higher. 2019-nCoV infections have ranged from little-to-no symptoms to severe illness and death. The [incubation period is believed to be 2-14 days](#). Cruise ship medical staff and telemedicine providers evaluating patients with fever or acute respiratory illness should obtain a detailed travel history and assess for any other potential exposures to a person with confirmed 2019-nCoV infection.

Although routes of transmission have yet to be definitively determined, CDC recommends a cautious approach to interacting with patients under investigation.

- Ask such patients to wear a facemask (a surgical mask, not N-95) as soon as they are identified.
- Evaluate patients in a private room with the door closed, ideally an airborne infection isolation room, if available.
- [Staff entering the room should use Standard Precautions, Contact Precautions, and Airborne Precautions, and use eye protection \(such as goggles or a face shield\)](#).
- Because the signs and symptoms of 2019-nCoV are non-specific, people onboard who have fever or acute respiratory illness should be tested for influenza. CDC's [influenza website](#) also includes recommendations for the clinical use of influenza diagnostic tests, information on available tests, specimen collection, and guidance on interpreting influenza testing results. CDC has published [Guidance for Cruise Ships on Influenza-like Illness \(ILI\) Management](#).

Managing sick passengers or crew when boarding and onboard

Deny boarding of a passenger or crew member who is suspected to have 2019-nCoV infection based on signs and symptoms plus travel history in China or other known exposure at the time of embarkation.

Isolate passengers or crew onboard who are suspected of having 2019-nCoV infection in their cabins or quarters with the door closed until symptoms are improved. Discontinuing isolation precautions is made on a case-by-case basis, in consultation with CDC.

Ideally, medical follow-up should occur in the isolated person's cabin. Coordinate visits to the onboard medical center in advance, if needed, with medical staff. Have the sick person wear a facemask before leaving their cabin.

Managing passengers and crew after exposure

Refer to [CDC guidance](#) for information about assessing exposure risk and recommended public health management. CDC is available for consultation on risk assessment and management of exposed passengers and crew. For consultation, contact the CDC Emergency Operations Center at 770-488-7100 [@](#) or eocreport@cdc.gov.

Passengers and crew members who have had high-risk exposures to a person suspected of having 2019-nCoV should be quarantined in their cabins. All potentially exposed passengers, cruise ship medical staff, and crew members should self-monitor under supervision of ship medical staff or telemedicine providers until 14 days after the last possible exposure.

Preventing infection in crew members

Ensure your crew members are aware of the

- Global risk of 2019-nCoV during international travel
- Signs and symptoms that may indicate a sick traveler has 2019-nCoV
- Requirement for the ship's medical unit to report a traveler with suspected or known 2019-nCoV to CDC, if ship is destined for a US port
- Importance of not working on a ship while sick with fever or acute respiratory symptoms

The ship's company should also review their sick leave policies and communicate them to employees.

CDC recommends that crew members who self-report or appear to have fever or acute respiratory symptoms (such as cough or shortness of breath) be immediately evaluated.

In addition to annual influenza vaccination, have crew members follow these recommendations when their work activities involve contact with passengers and other crew members who have fever or acute respiratory illness.

- Ask the sick person to wear a facemask if tolerated.
- Maintain a distance of 6 feet from the sick person while interviewing, escorting, or providing other assistance.
- Keep interactions with sick people as brief as possible.
- Limit the number of people who interact with sick people. To the extent possible, have a single person give care and meals to the sick person.
- Avoid touching your eyes, nose, and mouth.
- [Wash your hands often with soap and water](#). If soap and water are not available and if hands are not visibly soiled, use a hand sanitizer containing 60%-95% alcohol.
- Provide tissues and access to soap and water and ask the sick persons to:
 - Cover their mouth and nose with a tissue (or facemask) when coughing or sneezing.
 - Throw away used tissues immediately in a disposable container (e.g., plastic bag) or a washable trash can.
 - Wash their hands often with soap and water for 20 seconds.
- If soap and water are not available and hands are not visibly soiled, the sick person should use a hand sanitizer containing 60%-95% alcohol.

Personal protective equipment and instructions for crew members

- Instruct crew members and other staff who may have contact with people with symptoms of 2019-nCoV in the proper use, storage, and disposal of personal protective equipment (PPE). Wrong use or handling of PPE can increase the spread of disease.
- Wear impermeable, disposable gloves if crew members need to have direct contact with sick people or potentially contaminated surfaces, rooms, or lavatories used by sick passengers and crew members. Instruct crew members to wash their hands with soap and water or use an alcohol-based hand sanitizer after removing gloves. Discard used gloves in the trash and don't wash or save for reuse. Avoid touching their faces with gloved or unwashed hands.

- Wearing N-95 respirators or face masks is not generally recommended for cruise ship crew members for general work activities. Wearing face masks can be considered for cruise ship workers who can't avoid close contact with people who have fever, cough, or difficulty breathing. Crew members need annual fit testing to wear N-95 respirators.

Reporting

CDC [requires](#) that ships destined for a US port of entry immediately report any death onboard or illness that meets CDC's definition of "ill person," including suspected cases of 2019-nCoV, to the [CDC Quarantine Station](#) with jurisdiction for the port.

Additional information for non-cruise ships: If the crew member or passenger has fever, cough, or difficulty breathing and has traveled to China in the past 14 days, please have the following information available before notifying the nearest [CDC Quarantine Station](#):

- Ship's ports of call during the last 14 days
- Sick crew member's embarkation date
- List of ports of call where the sick crew member disembarked during the previous 14 days
- Sick crew member's measured temperature
- List of the sick crew member's signs and symptoms, including onset dates

For ships on international voyages, if an illness occurred on board, complete the Maritime Declaration of Health and send to the competent authority, according to the 2005 International Health Regulations and the national legislation of the country of disembarkation.

Consultation

To consult CDC about assessing exposure risk and identifying contacts of ill travelers and crew, clinical management, laboratory specimen collection, or infection control concerns related to 2019-nCoV, contact the CDC Emergency Operations Center at 770-488-7100 [☎](#) or eocreport@cdc.gov.

Managing passengers or crew upon disembarkation

Before arriving at a US port, vessel medical staff and telemedicine providers or a cruise line representative must discuss the disembarkation of patients suspected of having 2019-nCoV with the [CDC Quarantine Station](#) having jurisdiction for the port and with the state and local health departments. CDC quarantine officials can help communicate with state and local health departments and will work with the ship's company, port partners, and health departments to ensure safe disembarkation and medical transportation of the patient upon arrival.

Additional recommendations

Personal protective equipment

Instruct crew members and other staff who may have contact with persons suspected of having 2019-nCoV in the proper storage, use (including [safe donning and doffing](#) [📄 \[PDF – 3 pages\]](#)), and disposal of PPE. Wrong use or handling of PPE can increase spread of disease.

Ship supplies

Ships should ensure availability of conveniently located dispensers of alcohol-based hand sanitizer. Where sinks are available, ensure handwashing supplies (such as soap, disposable towels) are consistently available.

Ships should carry a sufficient quantity of

- PPE, including facemasks, NIOSH-certified disposable N95 filtering facepiece respirators, eye protection such as goggles or disposable face shields that cover the front and sides of the face, and disposable medical gloves and gowns.
- medical supplies to meet day-to-day needs. Have contingency plans for rapid resupply during outbreaks.
- sterile viral transport media and sterile swabs to collect nasopharyngeal and nasal specimens if 2019-nCoV infection is suspected.

These optimal recommendations can be modified to reflect individual ship capabilities and characteristics.

Cleaning and Disinfection

At this time, in addition to routine cleaning and disinfection strategies, ships may consider more frequent cleaning of commonly touched surfaces such as handrails, countertops, and doorknobs. The primary mode of 2019-nCoV virus transmission is believed to be through respiratory droplets that are spread from an infected person through coughing or sneezing to a susceptible close contact within about 6 feet. Therefore, widespread disinfection is unlikely to be effective.

Cleaning when 2019-nCoV is suspected

Cleaning recommendations are based on existing [CDC infection control guidance](#) for preventing 2019-nCoV from spreading to others in homes.

Standard practice for pathogens spread by air (such as measles, tuberculosis) is to restrict people unprotected (for example, no respiratory protection) from entering a vacated room until sufficient time has elapsed for enough air changes to remove potentially infectious particles (more information on [clearance rates under differing ventilation conditions](#) is available).

We don't yet know how long 2019-nCoV remains infectious in the air.

In the interim, it is reasonable to apply a similar time period before entering the sick person's room without respiratory protection as used for other pathogens spread by air (for example, measles, tuberculosis). [Using measles as the example](#)  [\[PDF – 13 pages\]](#), restrict access for two hours after the sick person has left the room.

Clean surfaces infected by the respiratory secretions of a sick person suspected with 2019-nCoV (for example, in the sick person's living quarters or work area, and in isolation rooms).

Use disinfectant products against 2019-nCoV with Environmental Protection Agency (EPA)-approved emerging viral pathogens claims. These products can be identified by the following claim:

- [Product name] has demonstrated effectiveness against viruses similar to 2019-nCoV on hard non-porous surfaces. Therefore, this product can be used against 2019-nCoV when used in accordance with the directions for use against [name of supporting virus] on hard, non-porous surfaces.
 - Specific claims for "2019-nCoV" will not appear on the product or master label.
 - More information about EPA-approved emerging viral pathogens claims can be found [here](#) .

- If there are no available EPA-registered products with an approved emerging viral pathogen claim for 2019-nCoV, use products with label claims against human coronaviruses according to label instructions.

This claim or a similar claim, will be made only through the following communications outlets: technical literature distributed exclusively to healthcare facilities, physicians, nurses, and public health officials, “1-800” consumer information services, social media sites and company websites (non-label related).

In addition to wearing disposable gloves during routine cleaning, wear disposable gowns when cleaning areas suspected to be contaminated by 2019-nCoV. Wear PPE compatible with the disinfectant products being used and approved for use onboard the ship. [Remove carefully](#)  [PDF – 1 page] gloves and gowns to avoid cross-contamination and the surrounding area.

Perform [hand hygiene](#) upon removing and disposing gloves by washing hands often with soap and water for at least 20 seconds or using an alcohol-based hand sanitizer that contains 60 to 95% alcohol.

Clean all “high-touch” surfaces in the sick person’s room (for example, counters, tabletops, doorknobs, light switches, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables) according to instructions described for the above EPA-registered product. Wear disposable gloves and gowns during cleaning activities.

If visible contamination (for example, blood, respiratory secretions, or other body fluids) is present, the basic principles for blood or body substance spill management are outlined in the United States Occupational Safety and Health Administration (OSHA) [Bloodborne Pathogen Standard](#) . CDC guidelines recommend removing bulk spill matter, cleaning the site, and then disinfecting the site with the above EPA-registered disinfectant. For soft (porous) surfaces such as carpeted floor, rugs, and drapes, remove visible contamination if present, and wash according to the manufacturer’s instructions. Clean and disinfect unremovable materials with products mentioned above and allow to air dry.

When cleaning is completed, collect soiled material and PPE in a sturdy, leak-proof (plastic) bag that is tied shut and not reopened. Although not biohazardous or regulated medical waste, these materials should be incinerated and not sorted. Porous materials that will be washed can be transported to the laundry room in the same way. Immediately clean hands with soap and water or an alcohol-based hand sanitizer and avoid touching the face with gloved or unwashed hands.

No additional cleaning is needed for the ship’s supply-and-return ventilation registers or filtration systems.

No additional treatment of wastewater is needed.

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Content source: [Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases \(NCEZID\), Division of Global Migration and Quarantine \(DGMQ\)](#)