

Guidance for Ships on Managing Suspected Coronavirus Disease 2019 (COVID-19)

Early detection, prevention, and control of Coronavirus Disease 2019 (COVID-19) 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 COVID-19.

Purpose

This document provides guidance for ships originating from, or stopping in, the United States to help prevent, detect, and medically manage suspected COVID-19 infections. As ships travel worldwide, ship management and medical staff need to be aware of 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 further medical evaluation, testing, and treatment.

This document provides guidance for preventing spread of COVID-19 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 COVID-19, 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 degrees F / 38 degrees 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 COVID-19 as soon as possible is needed to minimize transmission of this virus. Cruise ship medical personnel and telemedicine providers should reference CDC's COVID-19 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 COVID-19.

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. COVID-19 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 COVID-19 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 COVID-19 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 COVID-19 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 COVID-19 infection in a single-occupancy cabin with the door closed until symptoms are improved. Discontinuing isolation precautions is made on a case-by-case basis, in consultation with CDC.

Medical follow-up should occur in the isolated person's cabin, if possible. 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 COVID-19 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 COVID-19 during international travel
- Signs and symptoms that may indicate a sick traveler has COVID-19
- Requirement for the ship's medical unit to report a traveler with suspected or known COVID-19 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, any time they leave their cabin or interact with other people;
- 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.
- 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 COVID-19 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 COVID-19, to the CDC Quarantine Station with jurisdiction for the port.

Additional information for non-cruise ships: If the signs and symptoms are consistent with CDC's standard required reporting requirements, please have the following information available before notifying the nearest CDC Quarantine Station:

1. *List of the sick traveler's signs and symptoms, including onset dates*
2. *The sick traveler's highest recorded temperature*
3. *The sick traveler's embarkation date and port*
4. *The ship's ports of call during the 14 days before the person got sick*
5. *List of ports of call where the sick traveler disembarked during the 14 days before the person got sick*

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 COVID-19, 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 COVID-19 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 COVID-19 in the proper storage, use (including safe donning and doffing pdf icon [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 face-piece 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 COVID-19 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 COVID-19 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 COVID-19 is suspected

Cleaning recommendations are based on existing CDC infection control guidance for preventing COVID-19 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 COVID-19 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, 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 COVID-19 (for example, in the sick person's living quarters or work area, and in isolation rooms).

Use disinfectant products against COVID-19 with Environmental Protection Agency (EPA)-approved emerging viral pathogens claims. If there are no available EPA-registered products with an approved

emerging viral pathogen claim for COVID-19, use products with label claims against human coronaviruses according to label instructions.

In addition to wearing disposable gloves during routine cleaning, wear disposable gowns when cleaning areas suspected to be contaminated by COVID-19. Wear PPE compatible with the disinfectant products being used and approved for use onboard the ship. Remove carefully 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 un-removable materials with products mentioned above and allow to air dry.

When cleaning is completed, collect soiled textiles and linens in sturdy leak-proof containers; these can be laundered using conventional processes following your standard operating procedures. PPE should be removed and placed with other disposable items in sturdy, leak-proof (plastic) bags that are tied shut and not reopened. The bags of used PPE and disposable items can then be placed into the solid waste stream according to routine procedures. Follow your standard operating procedures for waste removal and treatment.

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

No additional treatment of wastewater is needed.