



US MARINER CREW CHANGE FACILITATION GUIDANCE

FOR COVID-19



REVISION 1.0, APRIL 27, 2020

Authored by: SOCP Safety &
Health Working Group



SHIP OPERATIONS COOPERATIVE PROGRAM
BUSINESS • GOVERNMENT • EDUCATION • WORKFORCE

The objective of this document is to provide initial protocols that can be used uniformly across the US maritime industry to allow for resumption of much needed vessel crew changes. We are also in the process of developing an improvement process that will allow prompt and efficient changes to these protocols as experience and feedback from our marine crews are collected.

Although every precaution has been taken in preparation of this Crew Change Facilitation Guide, the author, reviewers, SOCP, and SOCP Members assume no responsibility for errors, or omissions. Nor is any liability assumed for damages resulting from use of the information contained herein. Keep abreast of the latest developments by referring to the appropriate agencies.

Table of Contents

About COVID-19.....	4
Symptom Awareness.....	4
When to Seek Medical Attention	5
General Prevention for Vessels.....	5
Pre-Shipment Screening	6
COVID-19 Pre-Shipment Screening Protocol	6
Travel To / From Vessel	8
Guidelines for On / Off Signers Travel.....	9
Illness While Onboard.....	10
Current CDC Recommendations.....	12
Operations Under Surveillance	12
Cleaning Versus Sanitation	14
Medical Waste.....	16
Steward Department Guidelines for COVID19	16
Steward Department PPE Practices.....	16
Improvement Survey.....	17
Appendices	18

Introduction

The uninterrupted flow of commerce on our U.S. Marine Transportation System (MTS) is critical to both National Security and economic vitality. During the ongoing national emergency, it is paramount that we safeguard the continued operation of the MTS in the face of the acute and evolving threats posed by the COVID-19 (novel coronavirus) pandemic. The MTS, which provides more than 90 percent of the domestic supply chain, is dependent on an extensive support network comprised of workers from both the private and public sectors.

The Cybersecurity and Infrastructure Security Agency (CISA) in their "[Advisory Memorandum on Identification of Essential Critical Infrastructure Workers During COVID-19 Response](#)" provides detailed information related to function descriptions that support the MTS.

On behalf of the Ship Operations Cooperative Program (SOCP), I would like to thank membership, association friends, industry partners, mariners, medical providers, regulatory and labor stakeholders who have all contributed to this document either through direct contribution or practical experience. This is a work in progress. As data becomes more widely available, symptomatology, testing, treatment and response to infection and protocols for keeping our sailors safe will change. Research and development continues to enhance our knowledge of COVID-19 and how it can impact our industry and our mariners, but it is paramount that as we learn, we keep our mariners safe and healthy. By utilizing a continuous improvement process in conjunction with this guidance, we look to minimize the potential risk of infection to all personnel involved with vessel operations.

COVID-19 infections on commercial vessels have been infrequent thanks to the efforts of the mariners and the cooperation of labor providers, terminal operators, industry oversight organizations, and vessel owner/operators. However, this has not been without considerable changes to the way the industry had been operating in terms of crew management. Initially, a moratorium was placed on commercial vessel crew reliefs. So far this has worked but keeping mariners on their vessels indefinitely is not a sustainable solution for them or the industry.

The objective of this document is to provide initial protocols that can be used uniformly across the US maritime industry to allow for resumption of much needed vessel crew changes. We also want to begin developing an improvement process that will allow prompt and efficient changes to these protocols as experience and feedback from our marine crews are collected.

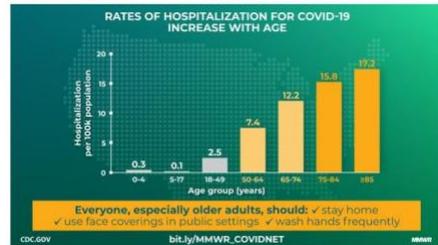
Thank you,

Captain Cole Cosgrove, Chair
SOCP Safety & Health Working Group

About COVID-19

COVID-19 is an illness caused by a virus that can spread primarily from person-to-person. The virus that causes COVID-19 is a new coronavirus that has spread throughout the world. COVID-19 symptoms can range from mild (or no symptoms) to severe illness. You can become infected by coming into close contact (about 6 feet or two arm lengths) with a person who has COVID-19. You can become infected from respiratory droplets when an infected person coughs, sneezes, or talks. You may also be able to get it by touching a surface or object that has the virus on it, and then touching your mouth, nose, or eyes.¹

The latest health facts below are intended to provide general information about the illness. While this information is broadly available, feedback we have received so far indicates a need and willingness to continually train mariners on how to prevent, protect, identify, and respond to possible situations involving exposure to the virus throughout the rotation process. This continuous training ensures everyone has the necessary information to minimize risks onboard.



Current data shows COVID-19 is highly contagious but definitive quantitative analysis has been difficult to determine this accurately, as about 80% of those with the illness only have mild symptoms, similar to the common cold. About 20% of those infected with the virus develop more severe symptoms. This typically occurs in individuals with higher risk factors, such as older adults and those with chronic medical problems, especially comorbidities (one or more conditions) that impact lung function. People under the age of 20 seem to have some protection against the virus but they can still get it and spread it. Large studies show only about 1% of children were affected.² These studies also show the virus is predominantly spread by droplets from close person-to-person contact. Though some spread occurs through touching surfaces, close person-to-person contact with droplets remains the primary threat.³

Symptom Awareness

It is important that crews continue to be made aware of the symptoms associated with COVID-19. These symptoms may appear 2-14 days after exposure to the virus. Some persons exposed to the virus show no symptoms at all (asymptomatic*). The most common presenting symptoms include:

Cough, 68%	Shortness of breath, 19%
Fever, 44%**	Sore throat, 14%
Fatigue, 38%	Headache, 14%
Sputum production, 34%	Anosmia and dysgeusia (loss of smell / loss of taste)***

¹ [Coronavirus disease 2019 \(COVID-19\) Factsheet](#)

² [CDC Demographic Characteristic of COVID-19](#)

³ [Future Care Bulletin No. 7](#)

*Asymptomatic carriage and transmission have been reported. Clearly, being asymptomatic and infected is very concerning and believed responsible for the exponential expansion in the number of cases. This is why social distancing and other practical steps found in the [General Prevention for Vessels section](#) of this document can be critical to maintaining a healthy vessel.

**Fever is NOT required to make the diagnosis. Fever was present in 44% of patients at initial presentation, but this increased to 90% of patients during their hospital admission.

***Anecdotal evidence suggests that anosmia (loss of smell) and dysgeusia (abnormal or loss of taste) are significant symptoms and may occur without other symptoms or be present prior to the onset of other symptoms.

Bottom line, screening for an elevated temperature is not a bad idea, if you use a no touch forehead thermometer and the temperature threshold is lowered to 100 F. However, this will only identify 44% of those presenting with symptoms. Numerous external factors need to be considered when utilizing this screening method. While most patients develop a fever once they are very ill, only 44% present with fever initially.

When to Seek Medical Attention

If you develop emergency warning signs for COVID-19, get medical attention immediately.

Emergency warning signs include:

Trouble breathing

- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face
- Shortness of breath worsening with mild exertion
- Severe joint pain

IMPORTANT: This list is not all inclusive. Please consult your medical provider for any other symptoms that are severe or concerning.⁴

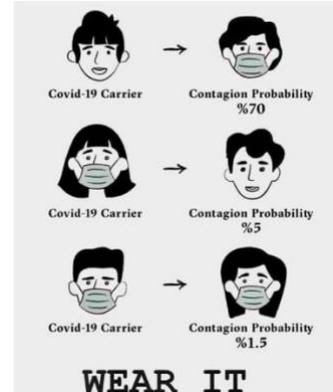
General Prevention for Vessels

The best way to protect yourself against COVID-19 is to follow the guidelines provided by the Center for Disease Control (CDC). Use a heightened sense of care when interacting with others that are ill, just as you would with anyone showing symptoms of other respiratory illnesses like the common cold or flu. There is currently no vaccine to protect against COVID-19. The best way to protect yourself is to avoid being exposed to the virus that causes COVID-19.

- Require anyone entering your work area or boarding your ship to abide by requirements for masks and hand washing.
- Postpone any non-essential travel
- Self-isolate prior to joining a vessel per guidance in this guide

⁴ [CDC Symptoms of Coronavirus](#)

- Wear a cloth face covering that covers your nose and mouth in all public settings.
- Maintain 6 feet of social distancing whenever your mask comes down/off to eat or drink. Wash your hands frequently for at least 20 seconds. Soap and water works even better than hand sanitizer. Use a hand sanitizer with at least 60% alcohol.
- Cover your nose and mouth when you cough or sneeze using a tissue or your bent elbow.
- Use your elbow instead of your hand to open doors, press buttons, and use touch screens.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- If you have recently traveled to an area or country with community spread of the virus and you develop symptoms of respiratory illness, inform your onboard medical officer immediately.
- Do not turn-to if you get sick.
- Do not share food with co-workers.
- Do not congregate in breakrooms or eat in large groups.
- Avoid any close contact with people suffering from a fever or respiratory illness.
- Stay at least 6 feet away from others and disinfect items you must touch.
- Avoid shaking hands or making physical contact with others.
- Routinely sanitize common touch points and surfaces with bleach or alcohol-based disinfectants.
- Keep your work and common areas sanitized after others enter and leave.



Risk of infection is not only associated with boarding crewmembers. In addition to crewmember screening, some companies have instituted contractor and third-party screening protocols as well. Companies have also minimized third party access to the vessel, coordinating access based on input from the Master and Chief Engineer to determine critical services and repairs necessary during port calls. An example of a third-party notice can be found in [Appendix A](#) and questionnaire found in [Appendix B](#).

Pre-Shipment Screening

Labor partners and crew management companies with responsibility for mariner billet assignment, should contact potential replacement crew as early as possible; ideally reliefs should be identified at least 14 days prior to assignment to the vessel.

COVID-19 Pre-Shipment Screening Protocol

The following is a general process outline that can be followed in the hopes of returning to a more normalized protocol once advancements have been made in both testing and vaccination. It is difficult to anticipate all the idiosyncrasies that could impact this guidance. Some fleets will have to make modifications to this protocol based upon their specific operational tempo. As these enhancements are made, we encourage industry partners to share those changes with the SOCP so they can be documented separately for the particular lines of operation.

When a crewmember is identified as a relief for an upcoming crew change, the following process should be followed:

- 1) Send [Appendix B](#) Pre-Assignment questionnaire to the employee.
 - a. If they answer "Yes" to any of questions 1, 3, 4 or 5, they should be denied shipment until the 14-day quarantine period has passed. If they answer "yes" to question 2, they must be reviewed to confirm if they have been practicing social distancing and denied if they have not.
 - b. If they clear the questionnaire, continue the pre-screen protocol.
- 2) The company will send the employee instructions (see [Appendix C](#)) that:
 - a. They will shelter-in-place in accordance to local government instructions, as should all persons in their household. For those living in locations without government instructions, sheltering-in-place is meant as:
 - i. Stay at home except for essential needs (food, medication, essential health care, etc.).
 - ii. If you need to go out, stay at least 6 feet apart from other people, avoid crowded locations (10 or more people), and wear a cloth face covering.⁶
 - iii. You may exercise.
 - iv. Continue to maintain appropriate social distancing.
 - v. Avoid public transportation.
 - b. Follow the CDC guidelines for "How to Protect Yourself & Others."⁷
 - c. They will complete the "Instructions for Joining the Vessel During COVID-19" (see [Appendix C](#)).
- 3) The company will order a personal protective equipment (PPE) kit from their supplier or issue from in-house inventory at least 5 business days before travel is scheduled. Special instructions/items will include:
 - a. Priority of mail to be used (2nd day air versus overnight)
 - b. Approximate date of travel to the vessel.
 - c. The default order should include: 5 pairs of gloves for transit, sanitation wipes, 2 N-95 or equivalent masks, and 2 surgical masks and goggles to be used during transit. The travel instruction document should be inserted in the box as well. These specifics should be detailed in every order.
 - d. In the event PPE is needed fewer than 5 business days before shipment of the mariner, that should be made clear to your supplier but given current supply lead times; there is no guarantee it will arrive in time, so alternate arrangements should be considered for PPE.
- 4) The company will notify the vessel that the relief has been cleared using the screening protocol and will be joining.
- 5) The Mariner will be given instructions for travel to the vessel and advised to follow the provided travel precautions carefully and fully.

⁵ [FINRA State "Shelter-in-Place" and "Stay-at-Home" Orders](#)

⁶ [CDC Cloth Face Coverings: Questions and Answers](#)

⁷ [CDC How to Protect Yourself & Others](#)

- 6) For the first 10 days after signing on, the mariner should practice social distancing to the greatest extent possible. They should have meals served in a location away from others, practice good hygiene, and take other precautions as described by operational directions.
- 7) At the tenth day after signing on, if the mariner is exhibiting no symptoms, normal operations may resume. If positive symptoms are exhibited, operations should be notified immediately and onboard positive protocols put into effect, including USCG notification, etc.
- 8) **If a testing protocol is in place**, instructions on how this testing is to be completed should be included. Companies or individuals responsible for marine personnel will notify the vessel that the relief has been cleared using the screening protocol and will be joining.
- 9) **Test Kit Process Only:** Companies or individuals responsible for marine personnel will order test kits in accordance with their supplier's guidelines. Tests should be ordered at least 5 business days before the test is required to be taken.
- 10) **Test Kit Process Only:** After 7 days of sheltering in place, and no greater than 2 days prior to traveling to join the vessel, the test should be performed. In general, it should be done at the closest time possible prior to traveling to join the vessel.
- 11) **Test Kit Process Only:** The mariner may be issued a second test kit to bring with him/her to the vessel. For appropriate timing after signing on and before a follow-up test is completed, the mariner should practice social distancing to the greatest extent possible. They should have meals served in a location away from others, practice good hygiene, and take other precautions as described by operational directives and the test kit supplier's guidance.
- 12) **Test Kit Process Only:** Per the supplier's testing protocol, the mariner shall perform a follow-up test under the supervision of the ship's medical officer. If negative, normal operations may resume. If positive, operations should be notified immediately and onboard positive protocols put into effect, including USCG notification, etc.

Screening is performed under test kit supplier consultation. If negative, continue with the process. If positive, refer to positive screening procedure.

NOTE: The FDA (Federal Drug Administration) has recently issued guidance on the use of serological tests⁸ that will delay a more widespread use of this type of testing. Please see [Appendix E](#) for specific guidance on the use of serological tests for screening purposes. The SOCP will be updating this guidance on a frequent basis based on the latest FDA guidance on these devices.

Travel To / From Vessel

The CDC does not generally issue advisories or restrictions for travel within the United States. However, cases COVID-19 have been reported in all states, and many areas are experiencing community spread of the disease. Crowded travel settings, like airports, may increase chances of getting COVID-19, if there are other travelers with coronavirus infection. There are several things you should consider when deciding whether it is safe for you to travel. In the event you might be quarantined during your travels it is a good idea to pack 14 days of any extra medication you may be taking. If possible, organizations responsible for travel arrangements should not route mariners thru airports in high risk areas such as NYC area (Kennedy, LaGuardia, Newark, Miami, etc.) until these areas are no longer high risk.

⁸ [FDA Coronavirus \(COVID-19\) Update: Serological Test Validation and Education Efforts](#)

To prevent the introduction of COVID-19 onto the vessel, a pre-shipment screening (see [Appendix E](#)) shall be put in place to help detect any illness that would help labor partners, marine personnel departments, and mariners identify any symptoms or concerns that would make the mariner an at-risk traveler.

As always, we care for our shipmates and their families. Some of our shipmates may be deeply worried about their families and loved ones back home, and we encourage you to be mindful and supportive under these circumstances.

Guidelines for On / Off Signers Travel

As part of the standard travel process, below is a set of recommendations to enhance ongoing efforts to reduce the threat of COVID-19 exposure while transiting to or from a vessel and should be provided to crewmembers. It is recommended that these items be incorporated into existing travel processes. A sample travel to the vessel and travel to home (“Offsigners”) are included in [Appendices C and G](#) respectively.

Take PPE issued to you either during your pre-screen or upon preparation for disembarkation with you for travel to/from the vessel. Remember to practice superior hygiene always:

- Stay focused on frequent and rigorous cleaning of hands, face, and surfaces you come into contact with as part of your daily routine.
- Hand sanitizer can be used while wearing gloves.
- Wash hands before and after using a mask.
- Don and remove the Face Tube using the straps or sides.
- A mask should be used when it is difficult to keep social distancing while traveling.
- Treat all surfaces as if they could be contaminated. If wipes are available, wipe down arm rests, table surfaces, etc. If wipes are unavailable, wear pants and a long sleeve shirt to protect skin.
- The virus cannot penetrate healthy skin, but if you have any sores, open cuts, or wounds please be sure to protect these adequately at all times utilizing standard first aid coverings.
- If traveling through ports with confirmed COVID and there is unavoidable close contact with third party personnel:
 - **Going to ship:** depending on whether onboard follow up testing is available, you will be required to self-quarantine for an additional 5-10 days onboard while being monitored.
 - **Going to home:** self-quarantine from your family or in a separate room for 14 days to observe if you develop symptoms.
- Wear a fresh (or washed/disinfected) mask while self-isolating.
- Utensils, towels, linens should not be shared.
- Frequent touch areas such as doorknobs, light switches, cabinet doors, countertops, remotes, etc. should be regularly disinfected.
- If you develop flu-like symptoms consult a medical provider.
 - **At home:** Depending on State policies, mild symptoms will not be tested for COVID-19 and you will be sent home. It is advisable with mild symptoms to stay home and monitor rather than risk a trip to the hospital and potential exposure.

- If experiencing difficulty breathing or a persistent, high-grade fever, it is recommended to proceed to the nearest health facility to be evaluated and, if deemed appropriate, tested for COVID-19.

Keep organizations, responsible for marine personnel, informed of your fitness status. If a crewmember has traveled and is presenting with symptoms, the crewmember should be isolated before boarding. Review the symptoms with your medical advisory service and direct him or her per their guidance.

Illness While Onboard

Crewmembers must be instructed to report any illness immediately. As long as there is no difficulty breathing – regardless of other symptoms – the individual’s illness will most likely be managed aboard ship. Crew with significant comorbidities, such as cardiac disease, diabetes and chronic obstructive pulmonary disease COPD (especially if smokers), based on advice of the ship’s remote medical care provider, may be disembarked at the soonest available port. A crewmember having difficulty breathing should be medically disembarked at the soonest opportunity as rapid deterioration is possible. If a crewmember gets sick, the ship should consult its contracted medical advisory service (health care provider). Determination by a medical advisory service will require additional information to evaluate the crewmember’s symptoms. An example form for providing this information can be found in [Appendix H](#).

If in the judgement of the medical advisory service the crewmember’s symptoms are not consistent with COVID-19, the illness shall be managed according to normal company protocols. While awaiting guidance from medical advisory service, the crewmember shall:

- 1) Observe a 6-foot social distance.
- 2) Don a N95 (or comparable) mask.
- 3) Wash hands/sanitize regularly.
- 4) Avoid touching surfaces while being escorted to isolation.

(NOTE – Other crew to sanitize those immediate areas touched by the patient, as well as areas where the patient was working/standing watch.)

(NOTE – Even if a crewmember presents with seasonal flu symptoms, self-isolation should be considered. The flu can be every bit as contagious as COVID-19. Crew with the flu should not share galley and messing or lounge areas with other crewmembers until symptoms have subsided.)

If the medical advisory service advises that COVID-19 is suspected, the following procedures will be immediately implemented:

- 1) If in the judgement of the medical advisory service the crewmember’s symptoms are consistent with COVID-19, and the crewmember does require immediate and/or emergency medical treatment, the Master shall:
 - a. If shoreside, call an ambulance by dialing 911 or the host nations emergency assistant number.
 - b. In all instances, contact the vessel’s DPA (Designated Person Ashore) notifying of the situation; and,

- c. In coordination with the DPA, notify the cognizant Coast Guard captain of the port (COTP) as soon as practicable.
- 2) If in the judgement of the medical advisory service the crewmember's symptoms are consistent with COVID-19, and the crewmember does NOT require immediate and/or emergency medical treatment, the Master shall ensure the following:
- a. Vessel must report the illness to the USCG COTP for next port of arrival in accordance with guidance found in [MSIB 2-20 \(Change 4\)](#) and [33 CFR 160.216](#). The CDC form referred to in MSIB 2-20 can be found in [Appendix I](#). For situational updates, please check with the CDC at <https://go.usa.gov/xDdsW>.
 - b. Crewmember will be isolated/restricted to private quarters.
 - c. The door will be closed at all times and a sign will be posted on the door "ISOLATION ROOM – No Entry."
 - d. A fully charged radio should be tested and provided to the patient.
 - e. No visitors will be allowed without the express permission of the Master.
 - f. If the quarters do not have a private bathroom, then one bathroom will be designated for that person's use only. When the isolated person has to use the bathroom, they will notify the appropriate person and the path to the bathroom will be cleared of all other crew. Another alternative is to mark the path off with caution tape so that crewmembers have a defined area where COVID-19 sanitizing instructions would need to be utilized more frequently.
 - g. If possible, the isolation room should also be equipped with a refrigerator.
 - h. The medical PIC will be the only person allowed entry into the isolation room and will be responsible for patient care. PPE will be worn when entering the isolation room.
 - i. Mask, goggles, gloves, shoe covers or disinfecting footwear.
 - ii. After leaving the room, change out of clothes and place in a plastic bag to be immediately washed.
 - i. Take temperature with a thermometer every day to monitor for fever. Also watch for cough or trouble breathing.
 - j. Patient will take meals in the isolation room.
 - i. Room to be stocked with fluids.
 - ii. Meals will be delivered outside the door.
 - iii. Persons delivering meals will wear gloves and a mask and avoid touching surfaces in any designated caution areas.
 - iv. Where possible, plates, glasses, cutlery, napkins should be of a disposable nature (single use) and disposed of separately. If single use paper or plastic items are not available, then all galley wear must be segregated and cleaned independent of other dining wear.
 - v. Persons will knock on the door or communicate by radio to signify the meal is outside the door.
 - vi. Upon completion of the meal, the empty tray will be placed outside the door for pickup, placed in a plastic bag for transport to the galley for washing. The patient will communicate by radio with the support team when the tray is being put outside.
 - vii. Any cutlery, crockery, trays, etc. should be washed at high temperature.

- k. Until advised otherwise, all crew to wear masks and gloves.
- l. The house will be thoroughly cleansed with disinfectant, especially areas where the affected crewman has been.
- m. Any close contacts in days prior to illness presenting should practice social distancing onboard (mask in common areas, 6-foot distance from other crew whenever possible, frequent hand washing and wearing of gloves, separate meals, etc.). This process would be very similar to the onboarding of new crew.
- n. U.S. crewmembers traveling outside of the United States should notify shoreside marine personnel coordinators prior to returning to work to receive clearance.
- o. Prepare ahead of time the emergency patient information required by USCG in case of need for helicopter evacuation. See Appendix J.

Current CDC Recommendations

- 1) **Strategy based on no testing available or testing not used** - Persons with COVID-19 who have symptoms and were directed to care for themselves at home may discontinue home isolation under the following conditions:
 - a. At least 3 days (72 hours) have passed since recovery defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms (e.g., cough, shortness of breath); and,
 - b. At least 7 days have passed since symptoms first appeared.
- 2) **Test-based strategy** - contingent on the availability of ample testing supplies and laboratory capacity as well as convenient access to testing.
 - a. Persons who have COVID-19 and symptoms and were directed to care for themselves at home may discontinue home isolation under the following conditions:
 - i. Resolution of fever without the use of fever-reducing medications, and
 - ii. Improvement in respiratory symptoms (e.g., cough, shortness of breath), and
 - iii. Negative results of an FDA EUA (Emergency Use Authorized) molecular assay for COVID-19 from at least two consecutive nasopharyngeal swab specimens collected ≥ 24 hours apart (total of two negative specimens).
- 3) **Asymptomatic**
 - a. Individuals with laboratory-confirmed COVID-19 who have not had any symptoms may discontinue home isolation when at least 7 days have passed since the date of their first positive COVID-19 diagnostic test and have had no subsequent illness.

This strategy can be used with crewmembers who test positive or are presumed positive while on board. The crewmember should always be presumed to still have some chance of being infectious for another seven days and wear a facemask when in public.

Operations Under Surveillance

If a crewmember has been removed from the vessel that does not significantly impact the Safe Manning Certificate due to a suspected COVID-19 illness, the vessel may continue to operate

according to the following operational protocols, subject to the approval of the cognizant Coast Guard COTP. These operational protocols shall apply until lifted by the company and the COTP.

- 1) No visitors or vendors shall be allowed in the interior of the vessel.
- 2) Crewmembers shall maintain minimum 6 feet distance from anyone not part of the vessel crew complement.
- 3) Fleets and/or other vessels shall be notified prior to the arrival of the vessel. Crewmembers shall maintain minimum 6 feet distance from fleet and/or other vessel crews. Rigging shall be dropped with each crew working on its own.
- 4) Essential vendors shall be notified prior to arrival to the vessel. Supplies/groceries shall be landed on the dock and there will be no vendor interaction with crewmembers. All paperwork shall be handled electronically by shoreside personnel.
- 5) Pilots will be notified in advance so that a coordinated process can be agreed. All personnel interacting with the Pilot will wear masks and gloves. Bridge disinfecting will be carried out in accordance with the pilot procedures established with the pilots.
- 6) On entering or exiting a COTP Zone, the vessel shall notify the cognizant COTP(s).
- 7) The Master shall immediately report any adverse changes in crewmember health condition to the DPA and, in coordination with the managing office, to the cognizant COTP.
- 8) Upon positive COVID-19 test result(s) of the crewmember(s) removed for testing, the rest of the crew shall remain quarantined aboard the vessel and continue to implement the operational protocols for a time period recommended by the medical advisory service and approved by the cognizant COTP. At the end of that time period, if no crewmembers have become ill or exhibited signs or symptoms of illness, the vessel shall be returned to normal operations without restrictions.

Upon negative COVID-19 test result(s) of the crewmember(s) removed for testing, the rest of the crew shall be released from quarantine and the vessel shall be returned to normal operations without restrictions.

If the Master, Chief Engineer, or other rating that affects the Safe Manning Certificate has been removed from the vessel due to a suspected COVID-19 illness, the vessel shall notify the DPA and cognizant Coast Guard COTP for alternatives. If the Master is not removed and the vessel has the option of safely sailing short until such time a test result can be delivered, then this shall be discussed with the DPA and cognizant Coast Guard COTP.

Upon positive COVID-19 positive test result(s), the rest of the crew shall remain quarantined aboard the vessel and continue to implement operational protocols in items 1-6 for a time period recommended by the medical advisory service and approved by the cognizant COTP. At the end of that time period, if no crewmembers have become ill or exhibited signs or symptoms of illness, a relief crewmember(s) shall be onboarded, and the vessel shall be returned to normal operations without restrictions.

Upon negative COVID-19 test result(s), a relief crewmember(s) shall be onboarded, and the vessel shall be returned to normal operations without restrictions.

Alternatively, the company may decide to completely offboard the crew, decontaminate the vessel, and onboard an entirely new crew, subject to the approval of the cognizant COTP.

Cleaning Versus Sanitation

There are a few ways to kill the COVID-19 virus as it has a flimsy shell. Alcohol-based products disintegrate the protective lipids. Quaternary ammonium disinfectants, commonly used as cleaners in healthcare and food-service industries, attack protein and lipid structures stopping the pathogen's typical mode of infection. Bleach and other potent oxidizers swiftly break down a virus's essential components.

This guidance provides recommendations on the cleaning and disinfection of areas where persons under investigation (PUI) or those with confirmed COVID-19 reside or may be in self-isolation. It is aimed at limiting the survival of the virus. These guidelines are focused on non-healthcare facilities such as offices, and businesses that do, and do not, house persons overnight. These recommendations will be updated if additional information becomes available.

- Cleaning refers to the removal of dirt and impurities, including germs, from surfaces. Cleaning alone does not kill germs. But by removing the germs, it decreases their number and therefore any risk of spreading infection.⁹
- Disinfecting works by using chemicals, for example EPA-registered disinfectants, to kill germs on surfaces. This process does not necessarily clean dirty surfaces or remove germs. But killing germs remaining on a surface after cleaning further reduces any risk of spreading infection.¹⁰

This virus should be easy to kill. However, to obtain the best possible results the standard should be whether the chemical kills norovirus – which is harder to kill – and the recommended wet contact time before you can wipe/dry the surface. In order to sanitize a surface, it must be clean. Any recommended antiviral will do this. Once cleaned, there should be a second step to sanitize. Two steps, not one. While any approved product can be used to clean, including quaternary ammonium compounds or “quats” it is recommended to use products containing sodium hypochlorite to sanitize and watch carefully for the required wet contact time.

The best policy is to clean and wipe after recommended contact time with one product and then use another color rag to apply a second product and allow to air dry. The best thing for soft surfaces is electrostatic spraying and the best thing for carpets is very hot steam cleaning.

A SAMPLE procedure for cleaning infected crew cabins while occupied and after the crew disembarks has been included in [Appendix K](#). The same protocols apply to public areas. Know your high-risk areas:

- 1) Hard (Non-porous) Surfaces¹¹
 - a. If surfaces, especially bathrooms, handrails, are dirty, they should be cleaned using a detergent or soap and water prior to disinfection.
 - b. For disinfection, most common EPA-registered household disinfectants should be effective. See List N¹² of EPA-approved materials on the EPA website.

⁹ [CDC Cleaning and Disinfection for Community Facilities](#)

¹⁰ *ibid*

¹¹ *ibid*

¹² [EPA List N: Disinfectants for Use Against SARS-CoV-2](#)

2) Soft (Porous) Surfaces

- a. For soft (porous) surfaces such as carpeted floor, rugs, and drapes, remove visible contamination if present and clean with appropriate cleaners indicated for use on these surfaces.
- b. If the items can be laundered, launder items in accordance with the manufacturer's instructions using the warmest appropriate water setting for the items and then dry items completely.
- c. Otherwise, use products from EPA List N¹³ and that are suitable for porous surfaces

3) Electronics

- a. For electronics such as tablets, touch screens, keyboards, remote controls, and ATM machines, remove visible contamination if present.
- b. Follow the manufacturer's instructions for all cleaning and disinfection products.
- c. Consider use of wipeable covers for electronics.
- d. If no manufacturer guidance is available, consider the use of alcohol-based wipes or sprays containing at least 70% alcohol to disinfect touch screens. Dry surfaces thoroughly to avoid pooling of liquids.

4) Linens, Clothing, and Other Items That Go in the Laundry

- a. In order to minimize the possibility of dispersing virus through the air, do not shake dirty laundry.
- b. Wash items as appropriate in accordance with the manufacturer's instructions. If possible, launder items using the warmest appropriate water setting for the items and dry items completely. Dirty laundry that has been in contact with an ill person can be washed with other people's items.
- c. Clean and disinfect hampers or other carts for transporting laundry according to guidance above for hard or soft surfaces.

EPA approved cleaning products found in List N¹⁴ will contain labels with instructions for safe and effective use of the cleaning product including precautions you should take when applying the product. If unsure or unfamiliar with the product, ask your supervisor for the guidance before using. The risk of exposure to crewmembers is inherently low. Crewmembers should wear disposable gloves and gowns for all tasks in the cleaning process, including handling trash. Ensure that you have good ventilation at all times.

A bleach solution mixed in the ratio of 1:99 (1 part of household bleach mixed with 99 parts of water) can also be used in lieu of household cleaners.

Carefully remove PPE (gloves and gown) to avoid cross-contamination. Follow the Safe Donning and Doffing of PPE instructions provide in [Appendix L](#). The wrong use or handling of PPE can increase the spread of disease. REMEMBER TO CLEAN YOUR HAND OFTEN AND THEN CLEAN THEM AGAIN. Use ordinary soap and water for 20 seconds.

¹³ ibid

¹⁴ ibid

Medical Waste¹⁵

“Medical waste (trash) coming from healthcare facilities treating COVID-2019 patients is no different than waste coming from facilities without COVID-19 patients. CDC’s guidance states that management of laundry, food service utensils, and medical waste should be performed in accordance with routine procedures. There is no evidence to suggest that facility waste needs any additional disinfection.”¹⁶

Steward Department Guidelines for COVID19

While working in the galley, mess rooms, handling food or performing any other meal function, steward’s department personnel are required to comply with the following:

- Mask and gloves are always to be worn
- If available only galley clothes should be worn
- Street clothes, if worn, must be covered by an apron
- Galley clothes and aprons to be washed regularly to be kept clean and sanitized between shifts
- All dishes and cutlery to be washed in the dishwasher with the temp set as high at possible

Steward Department PPE Practices

While performing the following tasks, Steward Department crewmembers are required to wear a face covering and disposable gloves at a minimum along with standard galley attire. Tasks include:

- Practicing normal safe food practices, such as thoroughly cooking eggs and meat;
- Handling, preparing, or serving food in the galley;
- Handling any dishes, cups or utensils; or
- Performing any ancillary meal service functions in the mess such as putting out water pitchers, making coffee, putting out dishware and cutlery, stocking condiments on tables, stocking crew fridge and pantry snacks, tending to the salad bar, or other related tasks.

All non-disposable fabric face coverings and aprons need to be machine washed regularly as recommended by the CDC to maintain them in an adequately clean and sanitized condition between work shifts.

Unless approved by the Master, no one other than the galley staff is allowed in the kitchen or food preparation area. Any individual who is not available to eat during regular dining hours, needs to plan in advance for meals to be prepared and left for them.

¹⁵ [CDC Medical Waste](#)

¹⁶ [CDC Clinical Questions about COVID-19: Questions and Answers](#)

Improvement Survey

It is recommended that mariners be surveyed regarding their experience with the process - What worked, what did not work, and what policies or restrictions did they run into that conflicted with the instruction they were given? SOCP will aggregate the results of these surveys and provide the results to those who participate. The survey will be conducted through an easy to use application. Companies or individuals responsible for marine personnel will also be able to provide a paper-based survey and report aggregated information to SOCP for inclusion.

If you are interested in participating in this industry-wide improvement survey for crew change guidance, please contact the SOCP Administrator at programadmin@socp.us.

Appendices

- A. SAMPLE: 3rd Party Notification Letter
- B. Pre-Assignment Questionnaire (Rev 1.0)
- C. Travel Instruction for Mariners Joining a Vessel (Rev 2.0)
- D. Instructions for Joining Vessels During COVID-19 Pandemic (Rev 2.1)
- E. Guidance on the Use of Serological Testing for Screening (Pending Research)
- F. COVID-19 Pre-Shipment Screening Protocol (Rev 3.1)
- G. Guidelines for Offsigners (Rev 2.0)
- H. Future Care COVID-19 Investigation Form
- I. CDC Instructions for the Maritime Conveyance Illness or Death Investigation and Form
- J. Chapter 10 USCG Helicopter Evacuations and Assistance
- K. SAMPLE Procedure: Cleaning and Sanitizing Infected Staterooms and Cabins
- L. ECDC Guidance for wearing and removing personal protective equipment in healthcare settings for the care of patients with suspected or confirmed COVID-19
- M. CDC Mask guidance

Appendix A

Date:

Dear Valued Service Provider,

Effective immediately, _____ is implementing additional precautions to reduce crew exposure to the Coronavirus (COVID-19). This includes enhanced measures to pre-screen contractors, vendors, agents, auditors, or other such inspectors that have been requested to complete essential onboard services. It is our goal that balancing enhanced pre-screening measures for attending service providers, coupled with the measures being implemented on board the vessel, will greatly reduce crew exposure to COVID-19. It is important to note that service provider safety is also a high priority. In addition to outfitting the vessels with more cleaning, hygiene and medical locker supplies such as touch-less thermometers, latex gloves, masks, etc., we have directed our vessel crews to:

- Conduct frequent wipe downs and disinfect surfaces in the accommodation and other high traffic areas;
- Regular and thorough hand washing;
- Maintain social distancing;
- Avoidance of touching eyes, nose and mouth;
- Follow good respiratory hygiene;
- Immediately report to the ship's medical officer of fever, cough, shortness of breath, sore throat, chills and nasal congestion;
- Enact notification protocols in accordance with all International, U.S. Coast Guard and CDC requirements to include proper documentation;
- Minimize visitor contact with the crew (maintain 6 feet); and
- Contact the ship's medical service provider at any time for help.

As part of our overall preparedness strategy for our vessels, any employee attending one of our vessels shall complete the attached questionnaire. A questionnaire must be completed for **each individual** that will be performing work on board the vessel. The company representative responsible for administering the questionnaire to employees shall complete all data fields on the form, print their name, sign and date the bottom of the form. Completed forms shall be emailed to the company point of contact for the work performed (e.g. Port Engineer). Digital signatures are acceptable.

Please be advised, that upon arrival, the attending employees may be subject to additional screening as a further precaution. Furthermore, if it has been determined that an employee has not completed the questionnaire, he or she will be denied access to the vessel.

We sincerely appreciate your cooperation as we put forth our best efforts to ensure the safety of our crew and your employees. For any questions or concerns, please contact the _____ representative that ordered the requested service (e.g. Port Superintendent, Port Engineer, etc.).

Sincerely,

Appendix B

Pre-Assignment Questionnaire

To facilitate the effective assignment of crew members and others wishing to board a vessel, this questionnaire assesses the potential risk of boarding personnel to exposing others unintentionally to the COVID-19 virus. Prior to boarding the vessel, all persons must complete this questionnaire truthfully. Our goal is to ensure the wellbeing of themselves and all those attending the vessel.

Name:		Date:	
Ship to Board:		Port:	
No.	Question	Yes	No
1)	Have you experienced a fever (100.4° F / 38° C or greater using an oral thermometer) within the past 24 hours?	<input type="checkbox"/>	<input type="checkbox"/>
2)	Have you experienced signs of a fever such as chills, aches & pains, etc. within the last 24 hours?	<input type="checkbox"/>	<input type="checkbox"/>
3)	Have you experienced any symptoms of respiratory illness in the last 24 hours, such as coughing or shortness of breath?	<input type="checkbox"/>	<input type="checkbox"/>
4)	Have you travelled internationally within the past 14 days? https://wwwnc.cdc.gov/travel/notices/warning/coronavirus-global	<input type="checkbox"/>	<input type="checkbox"/>
5)	Have you been caring for someone at home or been in contact with anyone that has contracted or displayed symptoms consistent with COVID 19?	<input type="checkbox"/>	<input type="checkbox"/>
6)	Can you attest to the fact that you have been carrying out best practices and or self-quarantine for at least 14 days.	<input type="checkbox"/>	<input type="checkbox"/>
7)	I understand that I am to immediately notify crewing personnel if I develop a fever or COVID / flu-like symptoms such as chills, aches & pains, respiratory illness such as coughing or shortness of breath within 24 hours of travelling to the vessel.	<input type="checkbox"/>	<input type="checkbox"/>
8)	Do you understand that it is required that you wear a cloth face covering while traveling per CDC guidelines. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover.html .	<input type="checkbox"/>	<input type="checkbox"/>
9)	Have you ever been screened, diagnosed, or tested positive for the Novel Coronavirus (COVID-19)? a. Where tested: _____ b. If "Yes", for Medical Department Representative inquiry only: i. Date of positive test: _____ ii. Date of first negative test: _____ iii. Date of last negative test: _____	<input type="checkbox"/>	<input type="checkbox"/>

NOTES:

- 1) If the answer to questions 1 through 5 is YES, travel is to be delayed until you are at least 24-hour fever and symptom free, and/or at least 14 days symptom free from exposure history. Follow up with your doctor or public health as appropriate to be cleared fit for duty – attach medical clearance to questionnaire (confidential information such as S.S.# should be blacked out prior to distributing medical clearance form).
- 2) Your temperature will be taken upon boarding the vessel, prior to entering the accommodation spaces. **If your temperature is above 100.4° F, or if you are displaying COVID or flu-like symptoms, you will be denied boarding.**
- 3) If you have been cleared by a medical professional as being fit for duty yet still have residual effects from the flu such as a cough or sneezing, you may be required to wear a mask on board and practice social distancing until symptoms are gone.

Appendix C

Travel Instruction for Mariners Joining a Vessel

To mitigate the potential spread of the Coronavirus (COVID-19) during this unprecedented pandemic, we are asking that you take the precautions outlined below. You have been provided a mask and several pairs of gloves as part of your test kit. You should wear this mask and gloves at all times while in public spaces in transit to the vessel.

Home

Received:

Two test kits (FDA Authorized) (if provided)- **Do NOT open the test kits until directed**

5 pairs of gloves (for testing and transit to vessel)

2 mask (N95 or equivalent); 2 mask (Surgical grade or equivalent) (for transit to vessel)

Alcohol wipes to wipe down all public transport prior to using

Goggles (for transit to vessel)

Continue self-quarantine of all home occupants.

Notify crewing that you have received the items above.

Call as directed () - and schedule appointment to conduct the test (when provided).

Take second test kit (when provided) with you to the vessel and follow instructions provided onboard.

Travel

Wear mask, goggles and gloves at all times while in public spaces in transit to the vessel. When donning and removing mask, avoid touching the mask and only touch the rubber bands. When removing gloves, follow effective removal procedures on next page.

Avoid touching your face at all times:-

Wash your hands at every opportunity under warm water using soap for 20 seconds both during transit and upon arrival to the vessel. Treat all surfaces as if contaminated.

When wearing gloves, hand sanitizer can be used. If gloves are removed, wash your hands.

Onboard

Upon arrival to the vessel, follow the safety protocols by the vessel.

Do not step onboard the vessel until instructed by the vessel to do so.

After signing on, practice social distancing maintaining 6ft. distance and refrain from using public break rooms for 10 days.

Travel Instruction for Mariners Joining a Vessel

UPON ARRIVAL TO YOUR ROOM

Immediately remove the outer clothing you wore while in transit and place them into a trash bag. These clothes should be kept in the trash bag undisturbed for at least 3 days.

Wash your hands thoroughly with soap and water.

Avoid touching any luggage, backpacks, or other items that were exposed during transit for three days. If you need to touch these items, wash hands immediately afterwards. Alternatively, spray down luggage with an approved solution. The vessel can guide you on those available.

Rotate meal times or have meals served in a location away from others. Practice good hygiene.

Wash your hands, don a mask and gloves each time before exiting your room. Practice good hygiene.

Immediately report any fever, respiratory symptoms, GI symptoms or loss of smell or taste to your supervisor.

After 10th day of onboard social distancing, exhibiting no symptoms of virus and at direction of vessel Master you will be allowed to use public areas.

Only if kits provided: On day 7 after signing on, perform follow-up test under supervision of ship's medical officer.

Only if kits provided: After second negative test on day 7, you will be allowed to use public areas.



Appendix D

INSTRUCTIONS FOR JOINING VESSELS DURING COVID-19 PANDEMIC

I acknowledge by signing this document that I understand the critical role I play as a crew member on board a Crowley vessel which provides critical goods and services to the residents of the United States, for the US Government as well as other countries throughout the world. As a result, it is imperative that I ensure to the best of my ability the health and safety of not only myself and family, but also my fellow crew members and pledge to adhere to the principles as noted below:

- To the best of my ability, I will shelter-in-place for up to fourteen (14) days prior to joining my vessel. I will also encourage those who live with me to do the same. It is understood that “shelter-in-place” will mean complying with the restrictions imposed by local government in my area of residence, or at a minimum, to the extent possible, staying in my home except to seek medical attention for myself or my family, or to secure necessary provisions for me or my family such as groceries and medicines, or to exercise.
- To the best of my ability, I will always practice social distancing; meaning avoiding places where people meet or gather, avoid public transportation if possible, keeping 6 ft. distance between myself and others, wear a mask or cloth face covering and practice good hygiene (hand washing, disinfecting, etc.). I will also encourage those who live with me to do the same.
- To the best of my ability, I will minimize personal contact with others and wear a mask or cloth face covering while transiting to or from the vessel from my home location.
- Truthfully answer the preboarding questionnaire, asked of me by my crewing coordinator, prior to accepting my job assignment.
- Refrain from joining the vessel if I have had any of the following symptoms anytime within a week prior to joining a vessel:
 - A fever higher than 100.4F/38C
 - A persistent cough
 - Shortness of breath
 - Other Flu like symptoms
- Allow my temperature to be taken before I join and on a daily basis after I join the vessel as deemed appropriate by the Captain. I further understand that if my temperature is 100.4F/38C or higher I will not be allowed to join the vessel and will be evaluated by a medical professional before being allowed to rejoin the vessel.
- I understand the Coast Guard requirement that persons who exhibit symptoms consistent with COVID-19 while assigned to the vessel must be reported to the Captain immediately so the Captain can report it to the USCG Captain of the Port and local authorities as appropriate. Symptoms listed by the CDC may include temperature (100.4F/38C or higher), cough, shortness of breath or flue like symptoms. If I have any of these symptoms, I will report it to the Captain immediately who will follow the established protocol.
- Strictly adhere to all guidelines provided by the Company, WHO, CDC, USCG and State requirements.
- I understand that non-essential personnel will not be granted access to the vessel. Visitors and guests are prohibited on board unless authorized by the Captain and or shore side management.
- It is understood that neither this document, nor the fact that I entered into it, will be used as evidence in any proceeding against me.

Print Name: _____

Position: _____

Signature: _____

Date: _____

Employee #: _____

Appendix E

Guidance on the Use of Serological Testing for Screening

Holding Statement: working on a use guidance document to be included in this initial draft but did not want to delay an initial distribution to the working group and industry associations for review awaiting this document. Hoping to have by end of day or tomorrow.

“Recognizing that more flexibility was needed during a pandemic of this scale and speed, and incorporating feedback from the medical community, states and test developers, the FDA have also provided regulatory flexibility for serological tests in an effort to provide laboratories and health care providers with early access to these tests with the understanding that the FDA had not reviewed or authorized (or “approved”) them, at least not initially, and these tests should not be used for diagnosing or excluding active SARS-CoV-2 infection. Specifically, last month, as part of our broader strategy, the FDA issued a policy explaining that FDA does not intend to object when developers of serological tests market or use their tests without prior FDA review where: 1) the tests are validated by the developer to determine that they are accurate and reliable, 2) notification of the developer’s validation is provided to FDA, and 3) the tests are labeled appropriately, including that they are not to be used as a sole basis for diagnosis. Our policy does not apply to at-home specimen collection or at-home testing because of the added challenges in assuring test accuracy that these pose. The policy does apply to tests that can be performed in patient care settings. Laboratories could validate tests they receive from commercial manufacturers and determine if they should be used in their facilities. Some laboratories have already done so or have developed their own serological tests.

The bottom line is that FDA still expects tests to be validated even under our revised policy for tests. However, the EUA process or an evaluation by NIH supports greater confidence in test performance.”¹

¹ FDA website, [“Coronavirus \(COVID-19\) Update: Serological Test Validation and Education Efforts”](#)

Appendix F

COVID-19 PRE-SHIPMENT SCREENING PROTOCOL

The following protocol is a general process that will be followed for joining crew members. This is a sample protocol and some fleets may have to modify this protocol based upon their specific operation.

Testing outside of a clinical setting for COVID-19 is an evolving process. After exhausting all attempts to implement a COVID-19 testing protocol for joining crewmembers, we have been advised that our initial testing protocol efforts no longer meet FDA guidance as per revisions issued on April 17. Given this development, we are implementing the guidance in contained in the SOCP "U.S. Mariner Crew Change Facilitation Guidance for CCOVID-19" to reduce the risk to the crew and the vessel but still allow crew rotations. Below are the key points:

When a crew member is identified as a relief for an upcoming crew change, the following process should be followed:

- 1) Send pre-screening questionnaire to the employee.
 - a. If they answer "Yes" to any of questions 1, 3, 4 or 5, they should be denied shipment until the 14-day quarantine period has passed. If they answer "yes" to question 2, they must be reviewed to confirm if they have been practicing social distancing and denied if they have not.
 - b. If they clear the questionnaire, continue
- 2) The company will send the employee instructions (See App. D) that:
 - a. They will shelter-in-place in accordance to local government instructions, as should all persons in their household. For those living in locations without government instructions, sheltering-in-place is meant as¹:
 - i. Stay home except for essential needs (food, necessary health care)
 - ii. If you need to go out, stay at least 6 feet apart from other people and wear a face covering (social distancing)
 - iii. You may exercise
 - iv. Avoid public transportation
 - b. They will complete the "Instructions for Joining the Vessel During COVID-19"
 - c. They will be informed that a PPE package will be shipped to their residence along with instructions when to be home to expect delivery.
 - d. Mariner will notify the responsible parties when the PPE package is received so that travel can be confirmed.
- 3) The company will order a PPE kit from their supplier or issue from in-house inventory **at least 5 business days before travel is scheduled**. Special instructions/items will include:
 - a. Priority of mail to be used (2nd day air vs. overnight)
 - b. Approximate date of travel to the vessel.
 - c. The default order should include, 5 pairs of gloves for transit, sanitation wipes² two N-95 or equivalent masks, 2 surgical masks and goggles to be used during transit. The travel instruction document should be inserted in the box as well. These specifics should be detailed in every order.

1 - <https://sf.gov/stay-home-except-essential-needs>

2 – Depending on supply source these may not go out with initial kits¹

- d. In the event PPE is needed fewer than 5 business days before shipment of the mariner, that should be made clear to your supplier but given current supply lead times there is no guarantee it will arrive in time so alternate arrangements should be considered for PPE.
- 4) The company will notify the vessel that the relief has been cleared using our screening protocol and will be joining.
- 5) Mariner will be given instructions for travel to the vessel and advised to follow the provided travel precautions carefully and fully.
- 6) For the first 10 days after signing on, the mariner should practice social distancing to the greatest extent possible. They should have meals served in a location away from others, practice good hygiene, and take other precautions as described by operational directions.
- 7) At the tenth day after signing on, the mariner if exhibiting no symptoms normal operations may resume. If positive symptoms exhibited, operations should be notified immediately and onboard positive protocols put into effect, including USCG notification, etc.

Appendix G

Guidelines for Offsigners

As part of the standard offsigning process for disembarking crewmembers, below is a set of travel home recommendations to enhance ongoing efforts to reduce the threat of COVID-19 exposure while traveling home. Please incorporate these items into the existing offsigning process.

- Take (2) N95 equivalent masks or your issued, washable cloth mask or face tube to travel home. Remember to:
 - Wash hands before and after using the mask
 - Don and remove using the straps (or sides of the Face Tube)
- Mask should be used when it is difficult to keep social distancing while traveling home.
- Wash hands and face often during your travels. Treat all surfaces as if they could be contaminated. If wipes are available, wipe down arm rests, table surfaces, etc. If wipes are unavailable, wear pants and long sleeve shirt to protect skin.
- If traveling through ports with confirmed COVID and have contact with workers from the ground, self-quarantine from your family or in a separate room for 14 days to observe if you develop symptoms.
- Wear a fresh (or washed/disinfected) mask while at home isolating.
- Utensils, towels, linens should not be shared.
- Frequent touch areas such as doorknobs, light switches, cabinet doors, countertops, remotes, etc. should be regularly disinfected.
- If you develop flu like symptoms, consult your primary care physician for guidance.
- If symptom onset is less than 10 days after returning home please contact the organization responsible for your travel arrangements as well.
- If experiencing difficulty breathing or have a persistent, high-grade fever, it is recommended to proceed to the nearest health facility to be evaluated and possibly tested for COVID-19.
- Instruct crewmember to keep marine personnel informed of their fitness status.

Appendix H



123 Town Square Place #531 Jersey City, NJ 07310
 TEL: 917-579-0257 FAX: 888-345-8335

New York • Athens • Manila • Beijing • Johannesburg



Captain's Investigation Form for Respiratory Illness On Board Vessel to Determine Need for Further Investigation

Name: _____ Nationality: _____ DOB: _____ Ship: _____

Symptoms and Clinical Course

Vital Signs Temperature: _____ Respiratory Rate: _____ Blood Pressure: _____ Heart Rate: _____ Oxygen Saturation: _____			Did the crewmember receive shoreside medical care: <input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No
Patient Reported Complaints/Symptoms: _____ _____ _____ _____ _____			If shoreside medical care was received: Date of service: _____ Facility: _____ Location: _____ Was the patient hospitalized? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, admission date: _____ If yes, discharge date: _____
Symptoms present during course of illness: <input type="checkbox"/> Symptomatic <input type="checkbox"/> Asymptomatic <input type="checkbox"/> Unknown	If symptomatic, onset date (MM/DD/YYYY): ____/____/____ <input type="checkbox"/> Unknown	If symptomatic, date of symptom resolution (MM/DD/YYYY): ____/____/____ <input type="checkbox"/> Still symptomatic <input type="checkbox"/> Unknown symptom status <input type="checkbox"/> Symptoms resolved, unknown date	Did the patient die as a result of this illness? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Date of death: _____ <input type="checkbox"/> Unknown date of death
Does the patient have a history of being in a healthcare facility in China? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown In the 14 days prior to illness onset, did the patient have any of the following exposures (check all that apply): <input type="checkbox"/> Travel to Wuhan <input type="checkbox"/> Exposure to a cluster of patients with severe acute lower respiratory distress of unknown etiology <input type="checkbox"/> Travel to Hubei <input type="checkbox"/> Other, specify: _____ <input type="checkbox"/> Travel to mainland China <input type="checkbox"/> Unknown <input type="checkbox"/> Travel to other non-US country specify: _____ <input type="checkbox"/> Contact with another lab-confirmed COVID-19 case-patient <input type="checkbox"/> Animal exposure			
If the patient had contact with another COVID-19 case, was this person a U.S. case? <input type="checkbox"/> Yes, nCoV ID of source case: _____ <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> N/A			
Under what process was the PUI or case first identified? (check all that apply): <input type="checkbox"/> Contact tracing of case patient <input type="checkbox"/> Routine surveillance/screening questionnaire <input type="checkbox"/> Clinical evaluation leading to PUI determination <input type="checkbox"/> Unknown <input type="checkbox"/> Other, specify: _____			

During this illness, did the patient experience any of the following symptoms?	Symptom Present?
Fever >100.4F (38C) ^c	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Subjective fever (felt feverish)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Chills	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Muscle aches (myalgia)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Runny nose (rhinorrhea)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Sore throat	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Cough (new onset or worsening of chronic cough)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Shortness of breath (dyspnea)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Nausea or vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Diarrhea (≥3 loose/looser than normal stools/24hr period)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Other, specify: _____	



123 Town Square Place #531 Jersey City, NJ 07310
 TEL: 917-579-0257 FAX: 888-345-8335

New York • Athens • Manila • Beijing • Johannesburg



Human Infection with 2019 Novel Coronavirus (COVID-19) Person Under Investigation (PUI) and Case Report Form

Name: _____ Nationality: _____ DOB: _____ Ship: _____

Past medical history and Social history

Pre-existing medical conditions?

Yes No Unknown

Chronic Lung Disease (asthma/emphysema/COPD)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	
Diabetes Mellitus	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	
Cardiovascular disease	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	
Chronic Renal disease	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	
Chronic Liver disease	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	
Immunocompromised Condition	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	
Neurologic/neurodevelopmental	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	(If YES, specify) _____
Other chronic diseases	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	(If YES, specify) _____
If female, currently pregnant	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	
Current smoker	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	
Former smoker	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	

Appendix I

Instructions for the Maritime Conveyance Illness or Death Investigation Form

Please download this form, type the vessel name at the top of the form, and save it for future use.

Completing and submitting

- Complete this form as specified by www.cdc.gov/quarantine/cruise-reporting-guidance.html or www.cdc.gov/quarantine/cargo-reporting-guidance.html.
 - Remember to use a separate form for each ill or deceased person.
 - Note that all fields with **red text and an asterisk symbol (*)** are required. These fields include: Person filling out form, E-mail, Type of notification, Type of traveler, Conveyance type, Vessel company/name, Country of departure, Departure date, Next U.S. port and state, Arrival date at next U.S. port, Embarkation port, Embarkation date, at least one Sign, Symptom, or Condition, and Presumptive diagnosis/cause of death.
 - Please note that for some questions (temperature unit, rash type, cough type, chest x-ray result, and presence of cavity) you won't be able to clear your selection by unclicking the box. To clear your selection you should click on the green default circle located to the right of the main selections. For example, if 'cavity' is checked in error, you may clear the selection by clicking the green default circle to the right of 'no cavity.' See images below.
- Cavity No cavity
- Cavity No cavity
- For more information about the fields on this form, visit: www.cdc.gov/quarantine/key-fields.html.
 - Submit to the [CDC Quarantine Station](#) with jurisdiction over the **next U.S. seaport of arrival** by one of the methods described below.

Instructions by section

Sections 1–4 (Quarantine Station Notification, Vessel Information, Medical History, and Evaluation of Ill or Deceased Person)

- To complete **Sections 1–4**, you may type directly into the form, or print and fill out by hand.
- To submit the form, choose from the following options:
 1. Click on the gray **“Send Via E-mail”** button in the upper left-hand corner of the form (Note: In order to use this option, your e-mail account must be set up to automatically generate an e-mail message from a PDF), or save the form, then attach to your e-mail and send it to MaritimeAdmin@cdc.gov, or
 2. Look up the contact information for the [CDC Quarantine Station](#) with jurisdiction over the next U.S. seaport of arrival at www.cdc.gov/quarantine/QuarantineStationContactListFull.html and send by **fax**, or
 3. By **telephone**.
- A confirmation e-mail will be sent to the e-mail address that was entered on the form within 1-2 business days. The quarantine station will contact you if follow-up information is needed.
- If you don't receive confirmation of your report, or if you have any questions, please contact the [CDC Quarantine Station](#) with jurisdiction over the next U.S. port of arrival, the CDC Emergency Operations Center at 770-488-7100, or the Maritime Activity Administrator (MaritimeAdmin@cdc.gov).

Section 5 (General Information About Ill or Deceased Person)

- **Please DON'T submit Section 5 unless the quarantine station asks you to do so.**
- To complete **Section 5**, **print out** the form and **fill in by hand**. This section contains personally identifiable information (PII), so you won't be able to type into the fillable PDF form.
- **Submit by fax or telephone.**
- **Do not submit any forms with PII to CDC through e-mail.**

PII is any information that can be used alone or in combination to identify an individual. This includes names, addresses, phone numbers, dates (birth, hospital admission, travel), identifying numbers (passport, social security, driver's license, alien), medical records, photographs, and for rare diseases, geographic locations.

Reminder to cruise ships

1. Report cumulative influenza and influenza-like illness (ILI) cases (including zero) for each voyage with the Maritime Conveyance Cumulative Influenza/ Influenza-Like Illness (ILI) Form: www.cdc.gov/quarantine/cumulative-form.html. Influenza and ILI are defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a KNOWN cause other than influenza.
2. Send gastrointestinal (GI) illness reports to CDC's Vessel Sanitation Program (VSP). For more information call 800-323-2132 or visit <http://www.cdc.gov/nceh/vsp/>.
3. Report a case of Legionnaires' disease by sending an e-mail to travellegionella@cdc.gov.



Maritime Conveyance Illness or Death Investigation Form

U.S. Centers for Disease Control and Prevention

Section 1. Quarantine Station Notification					
Person filling out form (*):		Phone:		E-mail (*):	
Type of notification (*):	Illness Death	Type of traveler (*):	Crew Passenger	Conveyance type (*):	Cruise ship Cargo Other
Section 2: Vessel Information					
Vessel company/name (*):			Voyage number:		Number on board:
					Crew: Passengers:
Country of departure (*):		Departure date (*) & time (24 hr):		Arrival date & time (24 hr) at final port:	
		mm / dd / yyyy hh : mm		mm / dd / yyyy hh : mm	
Itinerary:					
Next U.S. port (*):				Arrival date (*) & time (24 hr) at next U.S. port :	
				mm / dd / yyyy hh : mm	
Person information while onboard vessel:					
Cabin number:	If crew, list job title & duties:			If crew member has contact with passengers, describe extent/frequency:	
Embarkation port (*):		Embarkation date (*):	Disembarkation port:		Disembarkation date:
		mm / dd / yyyy			mm / dd / yyyy
Section 3: Medical History					
Age (___years vs. ___months):	Include relevant medical history of ill or deceased person (present illness, other medical problems, vaccinations, overseas physician diagnosis, etc.):				
Signs, Symptoms, and Conditions (*) [Check all that apply] :					
FEVER ($\geq 100^{\circ}\text{F}$ or $\geq 38^{\circ}\text{C}$) OR history of feeling feverish/ having chills in past 72 hrs Onset date: Current temperature: $^{\circ}\text{F/C}$ Rash Onset date: Appearance: Maculopapular Vesicular Pustular Purpuric/Petechial Scabbed Other Conjunctivitis/eye redness Onset date: Coryza/runny nose Onset date: Persistent cough Onset date: With blood Without blood Sore throat Onset date:		Difficulty breathing/shortness of breath Onset date: Swollen glands Onset date: Location: Head/neck Armpit Groin Vomiting Onset date: # of times in past 24 hrs: Diarrhea Onset date: # of times in past 24 hrs: Jaundice Onset date: Headache Onset date: Neck stiffness Onset date:		Decreased consciousness Onset date: Recent onset of focal weakness and/or paralysis Onset date: Unusual bleeding Onset date: Obviously unwell Chronic condition Asymptomatic Injury Other signs, symptoms, conditions:	
Deceased persons:					
Date of death:		Time of death (24 hours):			
		mm / dd / yyyy		hh : mm	
Presumptive diagnosis/cause of death (*):					
During the past 3 weeks, has anyone (onboard ship or disembarked) had similar signs and symptoms? (Please verify by a medical log review):				No	Yes*, total # ill of crew:
					total # ill of passengers:
*If yes, please fill in a new form for each person in the cluster				Unknown	

Section 4. Evaluation of Ill or Deceased Person

Traveler has taken (include those given on board):

Antibiotic/antiviral/antiparasitic(s) in the **past week**; list with dates started:

Fever-reducing medications (e.g., acetaminophen, ibuprofen) in the **past 12 hours**; list with dates started:

Other (related to current symptoms/illness); list with date(s) started:

Countries visited in the past 3 weeks	State/city/village	Arrival date	Exposure to ill persons		Exposure to animals		Other exposures (chemical, drug ingestion, etc.)	
			No	Yes	No	Yes	No	Yes
			No	Yes	No	Yes	No	Yes
			No	Yes	No	Yes	No	Yes
			No	Yes	No	Yes	No	Yes

Number of potentially exposed contacts (e.g., cabin, work, bathroom mates):

Are any traveling companions ill? No Yes*, how many are ill: N/A (no companions)

If passenger is a child, does s/he attend day care/youth program on ship?

No Yes, total # of children in day care/program: # of children with similar signs & symptoms*:

*Note: Submit a separate form for each ill or deceased person not previously reported to a CDC Quarantine Station.

Seen in ship infirmary?

No
Yes, date of first visit: mm / dd / yyyy
No infirmary

Ill/deceased person isolated after illness onset?

No
Yes, date isolated: mm / dd / yyyy

Seen in health-care facility ashore?

No
Yes; facility/health care provider(s) information (name, location, dates, telephone number, e-mail):

Hospitalized?

No
Yes, dates hospitalized: from to mm / dd / yyyy

Lab/Imaging Results

Tests	Date performed (mm/dd/yyyy)	Results (if unknown, provide name and phone number of lab/facility which performed tests/imaging)
Chest x-ray:		Normal Abnormal (Cavity No cavity)
<i>Legionella</i> urine antigen:		Positive Negative
Test 1:	1.	1.
Test 2:	2.	2.
Test 3:	3.	3.

Deceased persons:

Body released to medical examiner?: No Yes Telephone:

City/Country:

Discharge/final diagnosis/cause of death (determined by medical examiner or other):

Appendix J

CHAPTER 10 – USCG EVACUATIONS AND ASSISTANCE

TIME: One half hour

GOAL: Students will learn methods of obtaining USCG assistance that maximizes the safety of the crew, vessel and USCG personnel.

NEED STATEMENT:

1. An effective helicopter rescue can save lives; a poor one can take lives of rescuers and crew.
2. Since fuel consumption of the helicopter is a major constraint on the time and distance it can fly, the more prepared a fishing crew is for its arrival, the shorter the time the helicopter needs to spend on scene.

OBJECTIVES:

1. State three dangers inherent during a USCG helicopter evacuation.
2. List four steps in preparing a vessel for medical evacuation or delivery of a pump.
3. Describe the preparation of a patient for evacuation.
4. List six steps in hoisting a patient to USCG helicopter.

EQUIPMENT NEEDED:

USCG helicopter rescue basket, if available

TEACHING TIPS:

- *There are excellent videotapes on this subject that can help bring the topic to life. Review and use them!

- *If possible, invite someone from a USCG air station to talk on this topic.

- *Ask if anyone in the class has been involved with assistance from a USCG helicopter. Draw on the experience of your class.

- *If a basket is available, have students practice entering the basket in class.

INSTRUCTIONAL OUTLINE

I. INITIAL CONTACT WITH USCG

A. Radios

1. Channel 16, VHF
2. 4125 MHz, SSB
3. If your radio fails, once on scene the helicopter may:
 - a. Use a chalk board.
 - b. Drop a message block.
 - c. Lower a radio via hoist.

B. Communications

1. Communicate your problem clearly, before the crisis stage. Set up a communication schedule.
2. Decision to evacuate based upon:
 - a. Risk to patient/evacuee.
 - b. Severity of weather.
 - c. Life or limb threatening situation.
 - d. Time of vessel from port.
 - e. Risk to rescuers.
3. Information to rescuers includes:
 - a. Vessel name
 - b. Description
 - c. Length/description
 - d. Call sign
 - e. Location

* Latitude/longitude preferred

* Also provide geographic reference..

f. Weather

* Visibility

* Sea state

* Wind

* Cloud height

* Precipitation

g. Number persons on board.

h. Nature of problem.

* Vessel problem:

- Type of survival equipment, immersion suits, survival craft, EPIRB, and flares.

- Type of assistance needed.

* Medical problem:

- Patient's name, age, sex.

- Nature of illness/injury.

- Vital signs.

- History of illness/injury

- Assistance given.

- Level of medical care on board.

II. PREPARATION FOR EVACUATION

A. Clear Area

1. Evacuation usually from the work deck.
2. Secure loose items and debris – there will be a 80 - 100 knot rotor wash from aircraft.
3. Lower poles and rigging if possible.
4. KEEP COMMUNICATION OPEN – do not lower antennae.
5. Illuminate hoisting area, NO lights at helicopter.
6. Brief crew on procedure.
7. NO flash cameras.

B. Position Vessel

1. Maintain forward progress.
2. Keep bow 35 - 45 degrees to right off wind-line to maximize visibility for helicopter pilot.

C. Prepare Patient/Evacuees

1. Provide eye/ear protection.
2. Provide warm clothing/secure blankets/PFD.
3. Secure medical records inside clothes or blankets of patient.
4. Position patient on/near deck just before helicopter arrival.

D. Prepare for Hoist.

III. HELICOPTER ARRIVAL AND HOIST:

A. From Vessel:

1. Arrange for hand/visual signals by radio
2. Allow trail line to touch deck first to avoid static charge.
3. Guide litter (for patient)/basket (for evacuation) to vessel with trail line.
4. Allow litter/basket to touch deck first to avoid static charge.

5. DO NOT secure trail line or hoist hook to vessel or take into cabin while still connected to aircraft.
 6. Strap patient/evacuee into basket – one per basket.
 7. Have patient/evacuee keep hands, arms inside basket.
 8. Assure hoist line is clear of rigging (and feet!)
 9. Never stand outboard of basket/litter.
 10. Give helicopter a hand signal when ready to hoist.
 11. Use trail line to guide and stabilize during hoist.
- B. From Life Raft Or Water
1. If directed, swim away from the raft, one at a time, to be picked up. Raft may be blown by rotor wash.
 2. Use basket or hoisting strap delivered by helicopter; USCG will not use hoisting straps on immersion suits to lift.
 3. Follow directions given by rescue swimmer.

IV. OTHER CONSIDERATIONS

- A. Find out the number of crew in the helicopter – you may end up saving helicopter crew if engine failure.
- B. Keep USCG apprised of situation:
 1. Changes in weather.
 2. Changes in patient's condition and vitals; if the patient has died you may save the crew a dangerous flight.

V. DELIVERY AND USE OF USCG DEWATERING PUMPS

- A. Follow the same procedures listed above for communications and preparing for evacuation.

- B. Two methods of delivery:
 - 1. Direct – pump delivered directly to the deck of your vessel.
 - a. Decision made by the helicopter pilot after evaluating conditions on scene.
 - b. Follow the same procedure for receiving a basket or litter.
 - c. Unhook the cable and keep it free for the helicopter to haul back in.
 - d. DO NOT secure the cable to vessel.
 - 2. Indirect – used when vessel dead in the water.
 - a. Trail line delivered to vessel.
 - b. Jet or helo moves off from vessel and drops pump container into water (it floats).
 - c. Crew pulls in the pump using the trail line and lifts it on board.
- C. Operation
 - 1. Two pumps in most common use.
 - a. Pumps from USCG helicopters smaller in pumping capacity due to size and weight restrictions.
 - b. Pumps from USCG vessels are larger capacity.
 - 2. Follow the checklist of instructions on placard with pump.
 - 3. If a demonstration from a USCG airstation is not possible:
 - a. Use videotape on the subject to demonstrate.
 - b. Distribute instruction placards to class (see appendix) to use during discussion or video demonstration. Items to note during viewing: o-ring suction; rubber sleeve discharge; don't over choke; prime pump; caution using inside (carbon monoxide fumes)

VI. SUMMARY

- A. Helicopter evacuations and assistance can be dangerous to vessel and helicopter crews.

- B. Be prepared to provide rescuers with information about the nature of the emergency.
- C. Prepare the vessel before the helicopter arrives.
- D. Follow hoisting procedures.

REVIEW QUESTIONS:

1. State 3 dangers present during helicopter evacuation.

ANS:1) static charge from cables/litters, 2) rotor wash, 3) entanglement in vessel gear, 4)weather.

2. List 4 steps in preparing a vessel medivac or helicopter assistance.

ANS:1) Clear the deck, 2) position vessel, 3) prepare victims/survivors, 4) prepare for hoist/delivery.

3. Describe preparation of patient for evacuation.

ANS: Provide eye/ear protection, warm clothing, secure medical records on patient, position on deck prior to helicopter arrival.

4. List 6 steps involved in patient hoist.

ANS:1) Arrange for signals to helicopter, 2) allow trail line and litter to touch deck first, 3) guide trail line to deck, 4) strap patient securely into litter, 5) give hoist signal, 6) use trail line to guide litter to helicopter.

SKILLS CHECKLIST:

Appendix K

CLEANING AND SANITIZING INFECTED STATEROOMS AND CABINS

PART 1: DURING ISOLATION

The following procedure to be executed ONCE per day during the period of isolation. Suitable substitutions for products specified in this guidance may be used in consultation with your medical advisory service or other agencies with jurisdiction over sanitizing and disinfecting protocols. These guidelines are just an example for reference. Companies are encouraged to engage professional decontamination / sanitizing companies and develop a process that best suits your specific operations.

INFECTED CABIN - CLEANING AND SANITIZING SEQUENCE

- 1. Clean and sanitize infected staterooms LAST.**
- 2. Put on new disposable gloves.**
- 3. Remove garbage (all areas of cabin and bathroom)-place in suitable storage bag mark as required**
- 4. Remove all glassware and take to designated OPP glass wash machine for washing and sanitizing.**
- 5. Remove hard covered literature, sanitize with Oxivir Five 16 using a saturated rag, allow to air dry (minimum 5 minutes) and store for 14 days.**
- 6. Remove and discard paper literature**
- 7. Strip bed linens and place in laundry bag.**
- 8. Bathroom:**
 - a) Remove **all** towels/washcloths and shower curtain (place in laundry bag).
 - b) Remove opened/ used bars of soap and place in marked biohazard bag.
 - c) Wearing gloves and face mask, liberally spray bathroom with Oxivir Five 16 (sprayer must be on "mist" setting, not "stream") paying special attention to the following areas:
 - Toilet:
 - Toilet flushing knob
 - Toilet bowl exterior
 - Toilet seat cover/lid (top and undersides)
 - Toilet seat (top and undersides)
 - Inside toilet bowl, including under rim and top surface
 - Bathroom Door Handle
 - Sink area (sink basin and faucet knobs)
 - Entire shower (including faucet handles/knobs, and shower head)
 - d) Close bathroom door, allow Oxivir Five 16 to remain on surfaces for a minimum of 5 minutes.
- 9. Remove gloves by "peeling" them off, starting at the wrist and discard used gloves in marked bio-hazard bag.**
- 10. Put on new disposable gloves.**
- 11. Clean and sanitize the rest of the stateroom:**
 - a) Clean all hard surfaces using Virox
 - b) Sanitize all "hard" surfaces using Oxivir Five 16 allowing to air dry for 5 minutes.
 - Pay special attention to all "frequently-touched" surfaces

- c) Moderately spray all "soft" surfaces in cabin with Oxivir Five 16 (sprayer on "mist") and allow to air dry
- 12.** Sanitize hard literature with Oxivir Five 16 using a saturated rag; allow to air dry.
- 13.** Carpet: **DO NOT vacuum carpet during period of isolation.**
- 14.** Clean and sanitize bathroom: [wearing gloves and "paper" face mask]
- Wipe down all sanitized surfaces using a clean cloth and place in laundry bag
 - Wipe toilet surfaces with clean cloth and place in laundry bag
 - Clean all surfaces using Virox using blue rag (not toilet brush).
 - Dry all surfaces
 - Spray** Oxivir Five 16 again on all toilet surfaces and all "frequently-touched" surfaces in bathroom and allow to air dry
- 15.** Once bathroom is cleaned and sanitized, remove gloves by "peeling" them off, starting at the wrist and discard used gloves in marked bio-hazard bag.
- 16.** Wash hands thoroughly.
- 17.** Dress the stateroom.
- 18.** Place new towels / washcloths in bathroom.
- 19.** Place clean shower curtain.

PART 2: END OF ISOLATION AND TURNAROUND DAY

When an isolated Guest or Crew member is being "released" from isolation the above procedure, plus these additional measures, will be executed. This same procedure (all of the steps in Part 1 above, plus those below) is to be executed on the following turnaround day (regardless of when the isolation period ended).

Bathroom:

- Remove and place in a heavy duty plastic trash bag and label as "Bio-Hazard". Refer to "Medical Waste Section" in the "Cleaning vs Sanitation" section of the main Guidance document:
 - All rolls of toilet paper (both opened and unopened)
 - All bars of soap
 - Kleenex
 - Any other "loose" items that do not belong to the Guests

Literature:

- All paper literature in the stateroom is to be removed, discarded and replaced with new paper literature.
- On crew change Day, place new/sanitized hard covered literature items previously removed from the stateroom; these must be sanitized again with Oxivir Five 16 using a saturated rag and allowed to air dry.

Carpet:

- Spray carpet with Oxivir Five 16 and allow to air dry for a minimum of 5 minutes (DO NOT spray while crew are in stateroom)
- Extensively clean any carpeted area before vacuuming

Electrostatic Spraying:

- On crew change day, the stateroom should be sprayed with Oxivir Five 16 using electrostatic sprayers. Ensure they are used for a minimum of 2-3 minutes in staterooms/ average of 100 sq. ft. Proper PPE is to be worn by crew and NO guests shall be present when spraying; allow re-entry after 30 minutes.
- On crew change day, all open items in the refrigerator of an infected stateroom are to be: 1) removed and discarded 2) Sealed items wiped with 100 -150 ppm chlorine solution 3) placed in a sealed bag 4) stored in a dedicated storage room or area and 5) returned to crew member prior to their departure or after 3 days whichever is longer.

Reminders:

Use a minimum of 4 rags per stateroom: 1 blue/1 green to clean and 1 blue/1 green to sanitize. Change sanitizing solution in bucket at the first sign of cloudiness.

List of "frequently-touched" surfaces in typical staterooms / cabins:

- Tables
- TV buttons
- TV remote control
- All light switches
- Door handles
- Chair arms and top of chair back
- Closet door handle
- A/C control
- Phone (handset and touch buttons)
- Dresser drawer handles/knobs
- Cabinet handles/knobs
- Bedside & coffee tables
- Bathroom:
 - Toilet flush knob
 - Shower control knobs
 - Sink basin faucet knobs / handles
 - Countertop (sink/ vanity area)

Crew cabins are to be electrostatically sprayed at the end of isolation. Ensure personal items, food and beverages are well protected from exposure to chemicals.

Appendix L

Guidance for wearing and removing personal protective equipment in healthcare settings for the care of patients with suspected or confirmed COVID-19

February 2020

Scope of this document

This document provides support to healthcare workers managing suspected or confirmed cases of novel coronavirus 2019 (COVID-19). The general objectives of the document are:

- to present the minimal set of personal protective equipment (PPE) required for managing suspected or confirmed COVID-19 cases;
- to make healthcare workers aware of the critical aspects of the donning and doffing of PPE; and
- to strengthen occupational safety in healthcare workers for patients suspected of, or confirmed with, COVID-19.

This document is based on current COVID-19 knowledge and PPE best practices.

ECDC will update this document based on the evolving situation and if new relevant information arises.

Target audience

Healthcare workers and infection prevention and control personnel in EU/EEA countries and in the United Kingdom.

Background

What is SARS-CoV-2 and COVID-19?

The causative agent involved in the current outbreaks of COVID-19 is a virus belonging to the family of *Coronaviridae* (genus: *Betacoronavirus*), a large family of enveloped, positive-sense single-stranded RNA viruses. Coronaviruses are transmitted in most instances through large respiratory droplets and contact transmission, but other modes of transmission (i.e. airborne and faeco-oral) have also been proposed.

The average incubation period is estimated at 5 to 6 days, ranging from 0 to 14 days [1]. There is currently no specific treatment or vaccine against COVID-19.

More disease background information is available online from [ECDC](#) [2] and [WHO](#) [3], and in the last ECDC Rapid Risk Assessment [4].

Suggested minimal PPE set

The suggested minimal PPE set protects from contact, droplet and airborne transmission. The composition of the set is described in Table 1 and shown in Figure 1.

Table 1. Minimal composition of a set of PPE for the management of suspected or confirmed cases of COVID-19

Protection	Suggested PPE
Respiratory protection	FFP2 or FFP3 respirator (valved or non-valved version)*
Eye protection	Goggles (or face shield)
Body protection	Long-sleeved water-resistant gown
Hand protection	Gloves

* In case of shortage of respirators, the use of face masks (surgical or procedural masks) is recommended. When this type of PPE is used, the limitations and risks connected to its use should be assessed on a case-by-case basis.

Respiratory protection

The respirator protects from the inhalation of droplets and particles. Because different types of respirators fit differently between users, the respirator requires a fitting test.

ECDC suggests the use of class 2 or 3 filtering face-piece (FFP) respirators (FFP2 or FFP3, Figure 1) when assessing a suspected case or managing a confirmed case. A FFP3 respirator should be always used when performing aerosol-generating procedures.

Face masks (surgical masks) mainly protect from exhaled droplets [5]; their use is recommended in case of shortage of respirators and on a case-by-case assessment. Surgical masks do not require fit testing.

Eye protection

Goggles, or face shields (Figure 2), should be used to prevent virus exposure of the eye mucosa.

Important: goggles need to fit the user's facial features and have to be compatible with the respirator.

Body protection

Long-sleeved water-resistant gowns should be used to prevent body contamination. This PPE item does not need to be sterile unless it is used in a sterile environment (e.g. operating room).

If water-resistant gowns are not available, a single-use plastic apron worn over the non-water-resistant gown can be used.

Hand protection

Gloves should be used when managing suspected or confirmed COVID-19 patients.

For more detailed information about PPE when caring for COVID-19 suspected or confirmed patients in healthcare settings, please refer to this [ECDC technical document](#) [6].

Figure 1. Suggested minimal PPE set for the management of suspected or confirmed cases of COVID-19: FFP2 or FFP3 respirators, goggles, long-sleeved water-resistant gown and gloves



Figure 2. A face shield

Most PPE components come in different sizes, and it is important to stress that PPE does not follow a one-size-fits-all principle. A proper PPE fit is essential to obtain protection; a non-suitable size will not protect its wearer.

There are different options for wearing (donning) and removing (doffing) PPE. ECDC suggests the following procedure for safe donning and doffing.

Wearing (donning) the PPE

Before wearing the PPE for managing a suspected or confirmed COVID-19 case, proper hand hygiene should be performed following international recommendations [7]. This is a critical aspect in this setting and should be performed using an alcohol-based solution in accordance with the manufacturer's instructions (Figure 3).

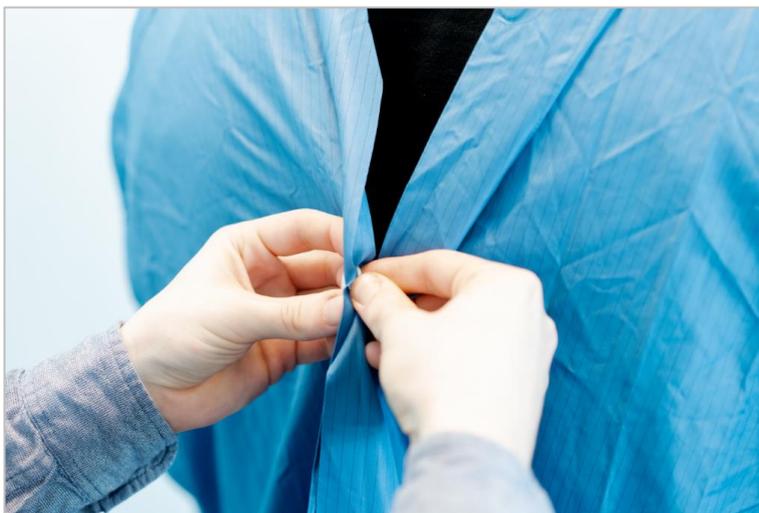
Figure 3. Hand hygiene performed using alcohol-based solution

The first PPE to be donned (Figure 4) is the gown. There are different types of gowns (single use, reusable); this guidance presents a reusable long-sleeved water-resistant gown. When using a gown with back closure, as shown below, a second operator should assist in buttoning up the back (Figure 5).

Figure 4. Donning of a long-sleeved water-resistant gown



Figure 5. Buttoning up the backside of the gown; performed by an assistant



After wearing the gown, it is suggested to proceed with the respirator that protects from the inhalation of droplets and particles. ECDC suggests that FFP2 or FFP3 respirators (Figure 6) be used for all procedures when managing a suspected or a confirmed COVID-19 case. It is important to perform a fitting test after the respirator has been put on, following the manufacturer's instructions. There are different methods to fit-test a respirator. Further information can be found in the ECDC technical document '[Safe use of personal protective equipment in the treatment of infectious diseases of high consequence](#)' [5].

Figure 6. Wearing of a FFP (class 2 or 3) respirator



The metal nose clip needs to be adjusted (Figure 7) and the straps have to be tightened to have a firm and comfortable fit. If you cannot achieve a proper fit, position the straps crosswise. However, this minor modification could imply a deviation from the recommendations in the manufacturer's product manual.

Figure 7. Fitting the respirator's metal nose clip



If a face mask (surgical mask) is worn as substitution for a respirator (Figure 8), it is important to correctly position it on the face and adjust it with the metal nose clip (Figure 9) in order to achieve a proper fit.

Figure 8. Wearing of a face mask (surgical mask)



Figure 9. Fitting the face mask's metal nose clip



Once the respirator has been properly positioned, put on the goggles for eye protection. Place the goggles over the mask's straps and ensure that the textile elastic strap fits snugly – but not too tightly (Figures 10 and 11).

Figure 10. Wearing of goggles with textile elastic strap



Figure 11. Side view of goggles with an elastic textile strap



If goggles with temples are used, make sure that they are properly positioned and fit well (Figure 12).

Figure 12. Wearing of goggles with temples



After the goggles, the gloves are next. When wearing gloves, it is important to extend the glove to cover the wrist over the gown's cuffs (Figure 13). For individuals allergic to latex gloves, an alternative option, for example nitrile gloves, should be available.

Figure 13. Wearing of gloves

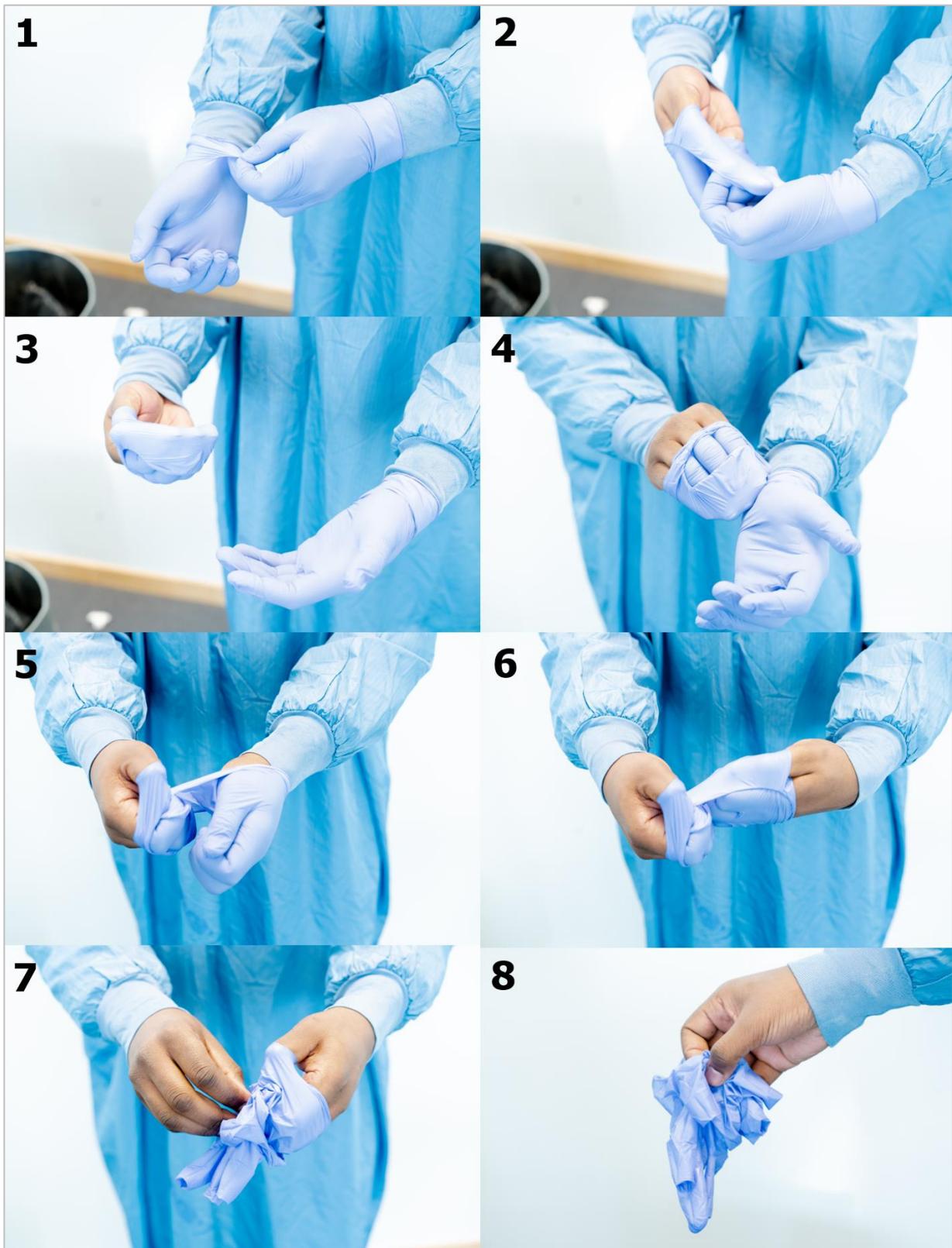


Removing (doffing) the PPE

Wearing the PPE correctly will protect the healthcare worker from contamination. After the patient has been examined, the removal (doffing) of the PPE is a critical and important step that needs to be carefully carried out in order to avoid self-contamination because the PPE could by now be contaminated.

The gloves are removed first because they are considered a heavily contaminated item. Use of alcohol-based hand disinfectant should be considered before removing the gloves. The gloves should be removed following eight steps (Figure 14).

Start by (1) pinching and holding the glove (with the other gloved hand) between the palm and wrist area, (2) peeling the glove away from the wrist (3) until it turns inside out covering the fingers. With the now half-gloved hand, (4) pinch and hold the fully gloved hand between the palm and wrist, (5) peel the glove away from the wrist (6) until it turns inside out and covers the fingers. Now that both hands are half-gloved, (7) remove the glove from one hand completely by grabbing the inside part of the glove and peeling it away from the hand, and do the same for the remaining half-gloved hand using the non-gloved hand, while always grabbing the inside part of the glove. Dispose of the gloves (8) in a biohazard bin.

Figure 14. Removal of gloves (steps 1 to 8)

After the removal of gloves, hand hygiene should be performed and a new pair of gloves should be worn to further continue the doffing procedure. Using a new pair of gloves will prevent self-contamination.

With the new pair of gloves on, the gown should be removed. When using a gown with back closure (as used in this document), a second operator should assist in unbuttoning the backside of the gown (Figure 15). The assistant should wear gloves and a surgical mask, which need to be removed after opening the gown. After the gloves of the assistant are removed, hand hygiene should be performed using an alcoholic solution. After the gown has been unbuttoned, the gown can be removed by the healthcare worker by grabbing the back of the gown (Figure 16) and pulling it away from the body, keeping the contaminated front part inside the gown (Figure 17).

Figure 15. Unbuttoning of the backside of the gown, performed by an assistant



Figure 16. Removal of gown: grabbing the back of the gown

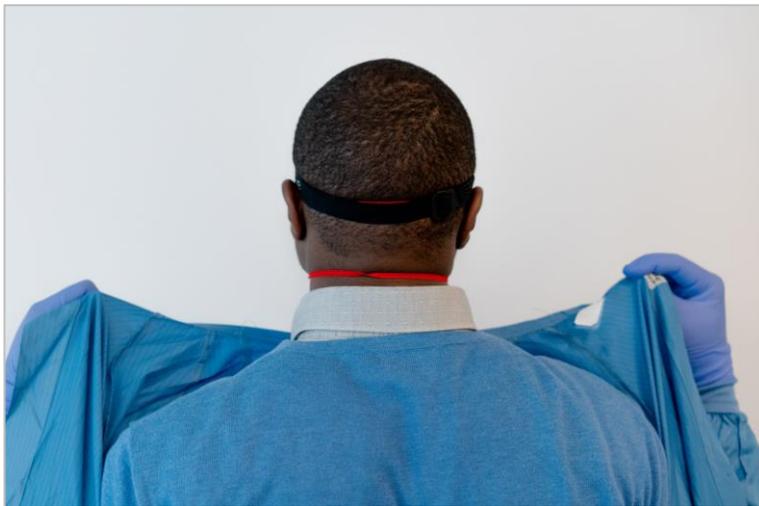


Figure 17. Removal of gown: pulling the gown away from the body



Single-use gowns can now be disposed of; reusable gowns have to be placed in a bag or container for disinfection (Figure 18).

Figure 18. Placing the gown in a biohazard container for disinfection



After the gown, the goggles should be removed and either disposed if they are single-use, or placed in a bag or container for disinfection. In order to remove the goggles, a finger should be placed under the textile elastic strap in the back of the head and the goggles taken off as shown in Figure 19. Touching the front part of the goggles, which can be contaminated, should be avoided. If goggles with temples are used, they should be removed as shown in Figure 20.

Figure 19. Removal of goggles with textile elastic strap (steps 1 to 4)



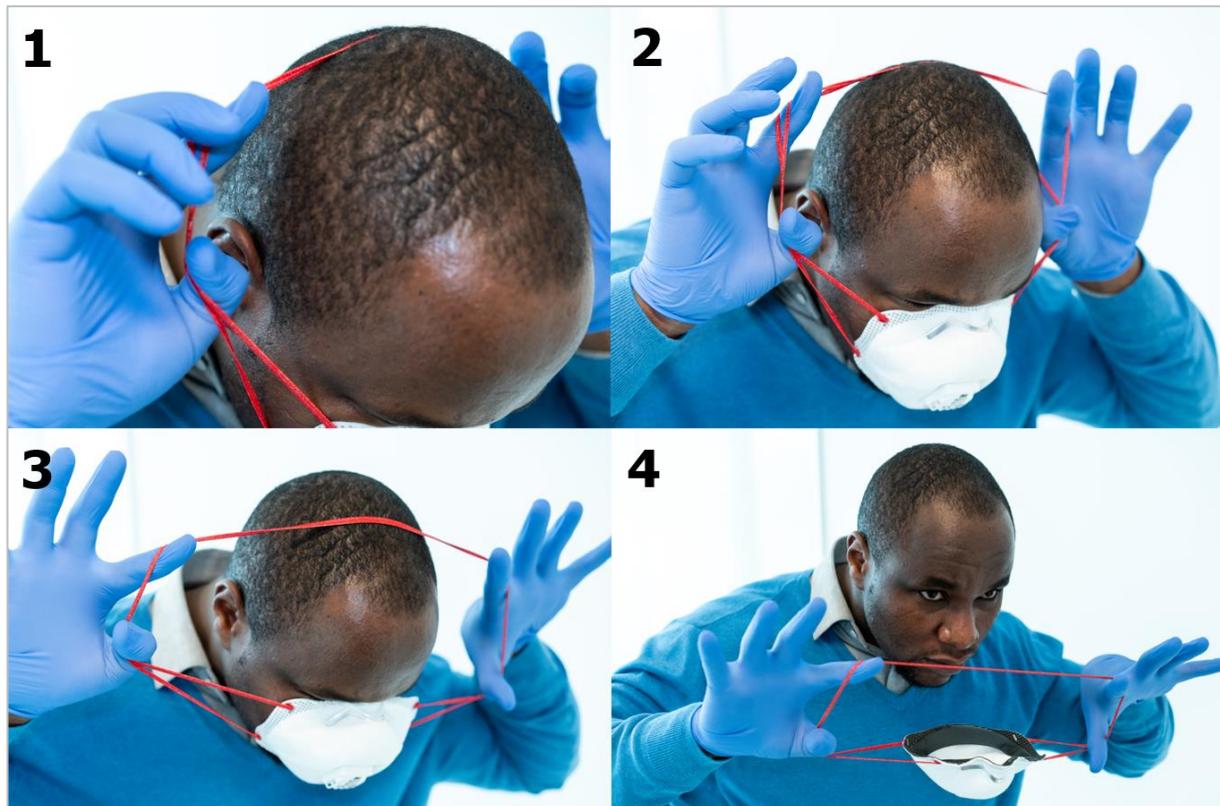
Figure 20. Removal of goggles with temples (steps 1 and 2)



The respirator should be removed next. In order to remove the respirator, a finger or thumb should be placed under the straps in the back and the respirator taken off as shown in Figure 21.

The respirator (or the surgical mask) should be disposed of after removal. It is important to avoid touching the respirator with the gloves (except for the elastic straps) during its removal.

Figure 21. Removal of respirator (steps 1 through 4)



The last PPE items that should be removed are the gloves. Use of alcohol-based solution should be considered before removing the gloves. The gloves should be removed in accordance with the procedure described above. After glove removal, hand hygiene should be performed.

Contributing ECDC experts (in alphabetical order)

Cornelia Adlhoch, Orlando Cenciarelli, Scott Chioffi, Mikolaj Handzlik, Michael Ndirangu, Daniel Palm, Pasi Penttinen, Carl Suetens

References

1. World Health Organization (WHO). Coronavirus disease 2019 (COVID-19). Situation report – 29 2020 [updated 19 February 2020; cited 2020 25 February]. Geneva: WHO; 2020. Available from: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200219-sitrep-30-covid-19.pdf?sfvrsn=6e50645_2.
2. European Centre for Disease Prevention and Control (ECDC). COVID-19 2020 [internet, cited 2020 24 February]. Stockholm: ECDC; 2020. Available from: <https://www.ecdc.europa.eu/en/novel-coronavirus-china>.
3. World Health Organization (WHO). Coronavirus disease (COVID-19) outbreak 2020 [cited 2020 24 February]. Geneva: WHO; 2020. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>.
4. European Centre for Disease Prevention and Control (ECDC). Outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2): increased transmission beyond China – fourth update 2020 [cited 2020 24 February]. Stockholm: ECDC; 2020. Available from: <https://www.ecdc.europa.eu/sites/default/files/documents/SARS-CoV-2-risk-assessment-14-february-2020.pdf.pdf>.
5. European Centre for Disease Prevention and Control (ECDC). Safe use of personal protective equipment in the treatment of infectious diseases of high consequence 2014 [cited 2020 25 February]. Stockholm: ECDC; 2020. Available from: <https://www.ecdc.europa.eu/sites/default/files/media/en/publications/Publications/safe-use-of-ppe.pdf>.
6. European Centre for Disease Prevention and Control (ECDC). Personal protective equipment (PPE) needs in healthcare settings for the care of patients with suspected or confirmed novel coronavirus (2019-nCoV) 2020 [cited 2020 25 February]. Stockholm: ECDC; 2020. Available from: <https://www.ecdc.europa.eu/sites/default/files/documents/novel-coronavirus-personal-protective-equipment-needs-healthcare-settings.pdf>.
7. World Health Organization (WHO). WHO Guidelines on hand hygiene in health care 2009 [cited 2020 25 February]. Geneva: WHO; 2009. Available from: https://apps.who.int/iris/bitstream/handle/10665/44102/9789241597906_eng.pdf;jsessionid=3D5B6AF129FA5FA0F98F7D80DF80EC2D?sequence=1.

Appendix M

Use of Cloth Face Coverings to Help Slow the Spread of COVID-19

How to Wear Cloth Face Coverings

Cloth face coverings should—

- fit snugly but comfortably against the side of the face
- be secured with ties or ear loops
- include multiple layers of fabric
- allow for breathing without restriction
- be able to be laundered and machine dried without damage or change to shape

CDC on Homemade Cloth Face Coverings

CDC recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain (e.g., grocery stores and pharmacies), **especially** in areas of significant community-based transmission.

CDC also advises the use of simple cloth face coverings to slow the spread of the virus and help people who may have the virus and do not know it from transmitting it to others. Cloth face coverings fashioned from household items or made at home from common materials at low cost can be used as an additional, voluntary public health measure.

Cloth face coverings should not be placed on young children under age 2, anyone who has trouble breathing, or is unconscious, incapacitated or otherwise unable to remove the cloth face covering without assistance.

The cloth face coverings recommended are not surgical masks or N-95 respirators. Those are critical supplies that must continue to be reserved for healthcare workers and other medical first responders, as recommended by current CDC guidance.

Should cloth face coverings be washed or otherwise cleaned regularly? How regularly?

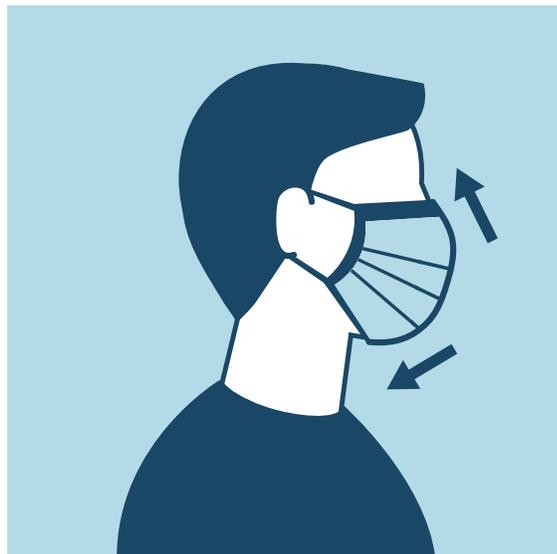
Yes. They should be routinely washed depending on the frequency of use.

How does one safely sterilize/clean a cloth face covering?

A washing machine should suffice in properly washing a cloth face covering.

How does one safely remove a used cloth face covering?

Individuals should be careful not to touch their eyes, nose, and mouth when removing their cloth face covering and wash hands immediately after removing.

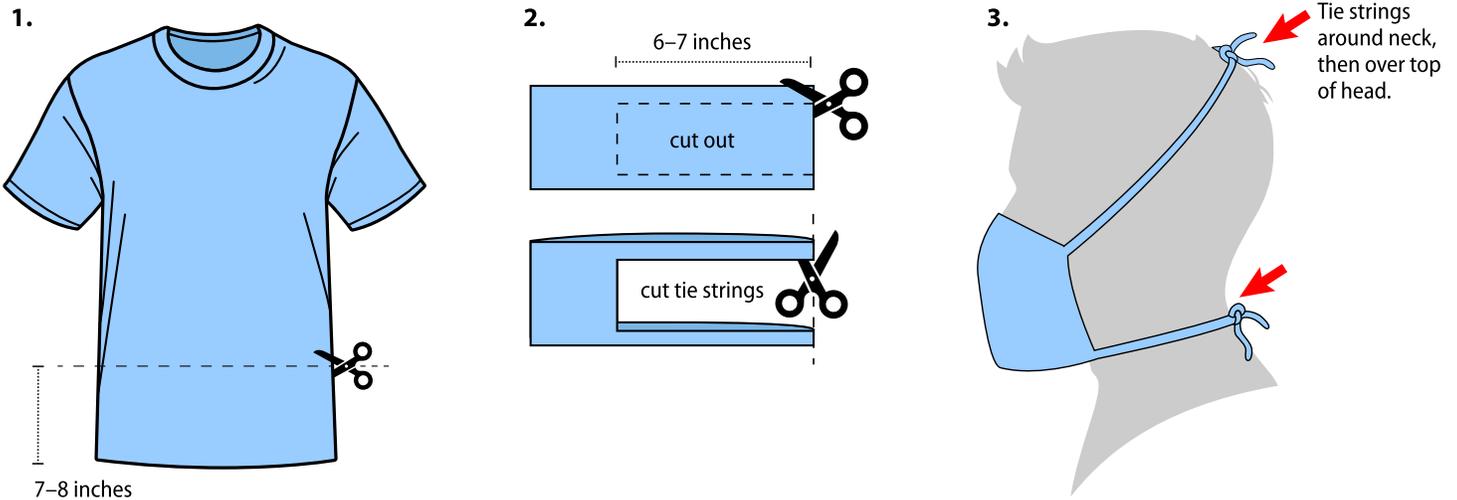


Quick Cut T-shirt Cloth Face Covering (no sew method)

Materials

- T-shirt
- Scissors

Tutorial

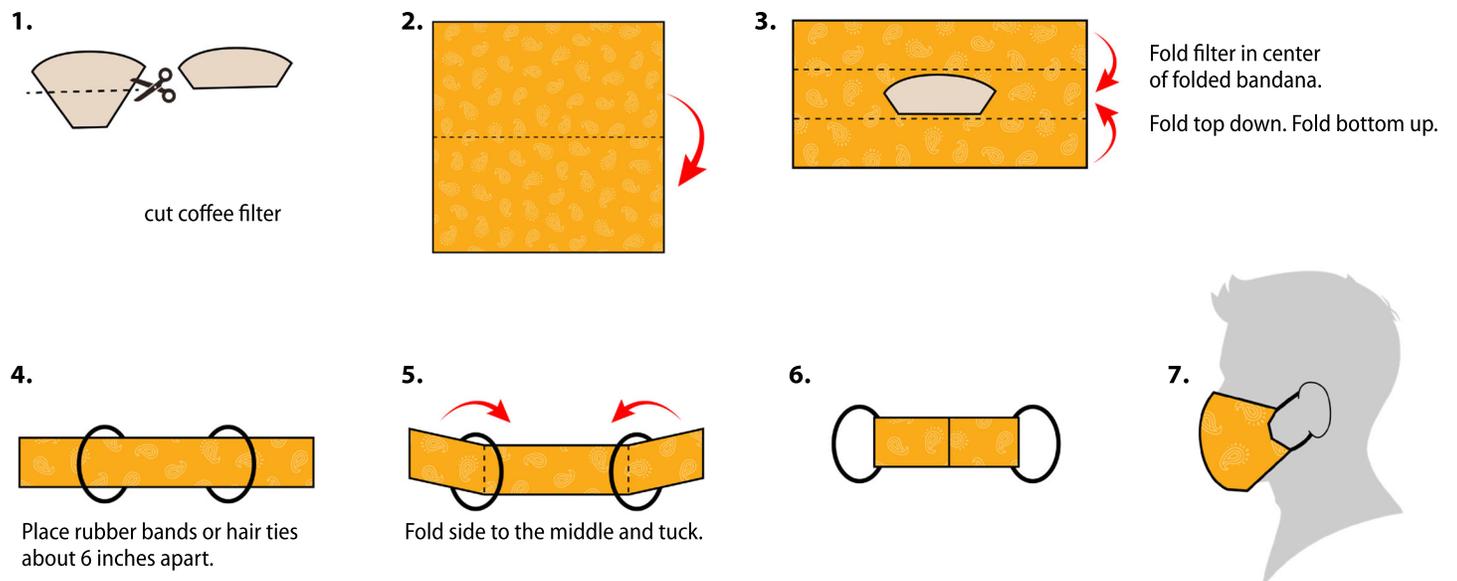


Bandana Cloth Face Covering (no sew method)

Materials

- Bandana (or square cotton cloth approximately 20"x20")
- Coffee filter
- Rubber bands (or hair ties)
- Scissors (if you are cutting your own cloth)

Tutorial



Mask Type	Pictures	Recommended Use	Quantity per Vessel
<p>N95 / KN95 Critical Use Within 6 foot</p>		<ul style="list-style-type: none"> • Treating ill crewmembers • Standing gangway watches or screening personnel • Traveling closer than 6 feet using public transportation • Performing duties inside space where social distancing is tough to achieve • Have available for Pilots, contractors, vendors, etc. 	<p>Maintain at least (2) per crew on board at all times, and enough inventory on board and back up supply for use on gangway watches, for potential ill crewmember or vendor, or as may be directed.</p>
<p>Face Shield Critical Use Within 6 foot</p>		<p>Ship's Medical Officer: Treating ill crewmembers presenting with COVID symptoms, or confirmed COVID</p>	<p>One per vessel for potential ill crewmember or vendor scenario that would require initial treatment on board the vessel by ship's Medical Officer. Mask can be cleaned and disinfected between use.</p>
<p>Cloth Masks (Face Tube, behind the ears, etc.) 6 Feet social distance required</p>		<ul style="list-style-type: none"> • Personal choice • In same interior space as others • Preparing food and mess hall • Working in a common space to perform sanitary functions 	<p>Vessels will be outfitted with (2) per current crewmember, and (2) for each crewmember's relief. Crew to use ship's laundry to disinfect masks.</p>
<p>Disposable Mask 6 Feet social distance required</p>		<ul style="list-style-type: none"> • Personal choice • In same interior space as others • Preparing food and mess hall • Working in a common space perform to sanitary functions • Have available for Pilots, contractors, vendors, etc. 	<p>Vessels to be outfitted with initial inventory of 100 per vessel; locate some in common areas on vessel (gangway, bridge, cargo control room, mess hall, etc.). Available for ship's crew and visitors.</p>