

COVID Mitigation Protocols Established for Safe JR Operations (COPE)

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Preface

This document defines protocols for operating the Research Vessel *JOIDES Resolution* (JR) as safely as possible for International Ocean Discovery Program (IODP) expeditions during a time when the novel **Coronavirus Disease 2019** (COVID-19) is present globally and has the potential to cause illness, long-term health complications, and even death. The approach taken here is to mitigate pathways for COVID to get on the JR and, if it does get on the JR, to prevent or limit the spread while caring for those who have become ill. The protocols outlined here will be followed to the extent that is practicable and may have to be modified due to constraints imposed by local authorities or logistical issues.

The protocols outlined in *COVID Mitigation Protocols Established for Safe JR Operations (COPE)* will be updated and revised continually as more is learned about COVID-19, new variants emerge, CDC and/or WHO guidance are updated, travel restrictions change, specific national port requirements are applied, tests become more readily available and accurate, and effective treatments, and, in particular, vaccines and boosters become widely available. A fully vaccinated ship greatly reduces risks to participants and the expedition. Until COVID-19 becomes endemic, the protocol will be adjusted accordingly, and all of those involved in the many aspects of implementing a successful IODP expedition will need to cope, which is “to deal effectively with a difficult situation.” There are no perfect solutions and there is no way to

ensure that illnesses, COVID-19 or otherwise, never occur on the JR. We therefore seek effective mitigation protocols for protecting the health of those who embark on the JR.

Acronyms and Definitions

CDC: Centers for Disease Control and Prevention (US)

COPE: COVID Mitigation Protocols Established for Safe JR Operations

COVID-19: Coronavirus Disease 2019

CSS: *JOIDES Resolution* Crew, JRSO Staff, and Scientists

EPM: Expedition Project Manager

IODP: International Ocean Discovery Program

JR: Research Vessel *JOIDES Resolution*

JRFB: *JOIDES Resolution* Facility Board

JRSO: *JOIDES Resolution* Science Operator

LO: JR Lab Officer

MLC: Marine Logistics Coordinator

PMO: Program Member Office

PPE: Personal Protective Equipment

SBSC: Shipboard Science Complement (scientists and JRSO staff)

Introduction

COPE is a plan for how to conduct IODP expeditions on the *JOIDES Resolution* as safely as possible until we can fully return to normal operations. The health and safety of all those who participate on IODP expeditions—the ship’s crew, the JRSO staff, and the scientists—is paramount. To conduct operations with low risks to crew, staff, and scientists, protocols for COVID-19 mitigation are described in this document for the following eight implementation stages. COPE is summarized in the attached flow chart at the end of the document.

1. Expedition planning, with an emphasis on shipboard preparedness, ports, and staffing
2. Recommended procedures to follow prior to departure from port
3. Protocols in port prior to moving onboard the JR
4. Protocols for port call activities
5. Shipboard mitigation measures
6. Dealing with a suspected COVID-19 case onboard
7. Protocols for medivacs or returning to port, in the event of a diagnosed case or development of serious symptoms onboard the JR
8. Ensuring safe return home

1. Expedition Planning

Well before the start of an expedition, the following steps will be taken to ensure the ship is prepared for dealing with COVID-19.

- 1.1. Port call determination: When the JRFB determines the expedition schedule, the JRSO selects ports to maximize logistical efficiencies and operational days on site, which is accomplished by minimizing transit time during expeditions. Moving forward, ports (both scheduled and to be scheduled) will also be evaluated in the light of several COVID-19 factors, including the following:
 - 1.1.1 State of the pandemic in departing and arrival ports
 - 1.1.2 Travel restrictions
 - 1.1.3 Availability of COVID-19 testing in port
- 1.2. The ship will be stocked with sufficient supplies for infection mitigation and treatment, following guidance consistent with [CDC latest information](#).
- 1.3. A possibly reduced shipboard science complement (SBSC):
 - 1.3.1 While COVID remains in the pandemic phase, sufficient berths will remain open to create a minimum of four isolations rooms on each expedition.
 - 1.3.1.1 This number of open berths is possible for most expeditions based on standard staffing levels but may need to be adjusted on a case-by-case basis.

2. Recommended Procedures to Follow Prior to Departure for Port

- 2.1 Shipboard participants must undergo the JRSO medical exam, which includes a COVID-19 risk assessment for severe illness.
 - 2.1.1 The COVID-19 assessment asks the (participant's, or when needed, the ship's) physician to determine if the combined known health conditions put the person being examined at a potentially high risk of developing a severe illness from COVID-19, including impact of the participant's vaccination status.
 - 2.1.2 The ship's doctor will evaluate the physicians' assessments to determine if the shipboard medical facilities/capabilities can support care for those individuals deemed to be in a higher risk category.
 - 2.1.2.1 Those scientists deemed at high risk have the option to become part of the science party as a shore-based member (see "Shipboard Science Complement").
 - 2.1.3 Those scientists deemed not to be at high risk must sign a consent form acknowledging that they understand the risk factors, particularly the risks related to their own medical conditions and history, and agree to participate on the JR.

- 2.2 All participants are strongly encouraged to get fully vaccinated and to get a booster shot, as recommended by the CDC. The CDC currently recommends boosters at least 2 months after receiving the J&J (Jansen) vaccine and at least 5 months after being fully vaccinated with the Pfizer or Moderna vaccines.
- 2.2.1 Prior to the Omicron variant, studies had documented very low breakthrough infection rate for the fully vaccinated. However, to achieve similar levels of protection with Omicron requires being recently fully vaccinated or receiving a booster. Despite the highly infectious nature of the Omicron variant, vaccinated individuals will have superior protection from severe disease and death when breakthrough infections occur.
- 2.3 Shipboard participants will shelter at home prior to departure for port.
- 2.3.1 Sheltering at home means stay at home, leaving only for essential services (e.g., food, healthcare). Avoid people outside your household, and maintain safe practices (e.g., handwashing with soap and water, clean and disinfect frequently touched surfaces). When outside your household, maintain a distance of 2 m (6 ft) and limit time of exposure to others. Wear a face covering when around others outside your household, especially indoors where social distancing alone does not protect you from infection.
- 2.3.2 Vaccinated participants should shelter at home for 7 days prior to departure.
- 2.3.3 Unvaccinated participants should shelter at home for 14 days prior to departure.
- 2.4 A COVID-19 PCR test is required prior to departure for port. This will help identify infected individuals before they expose others during travel and help avoid that person learning only after they arrive in port that they will not be allowed to sail.
- 2.4.1 Currently, most nations are requiring a PCR test as part of their entry requirements. Because these requirements continue to change, the timing of the pre-departure required test will be communicated to participants separately.
- 2.4.2 JRSO staff will be tested with costs covered by the JRSO.
- 2.4.3 Costs for scientists are dependent on their respective Program Member Office (PMO) policy.
- 2.5 All CSS are required to complete the online Siem Offshore screening questionnaire ([Siem Form FO-619](#)) 48–72 hours prior to departure for travel from home.
- 2.5.1 Anyone who tests positive or is determined to be a suspected COVID-19 case based on the Siem questionnaire shall not depart for port.
- 2.5.1.1 If the answer to any question on the FO-619 questionnaire is “yes,” the individual should not travel to the port.
- 2.5.1.2 Individuals who test positive should notify the following so replacements can be sought, if required:
- 2.5.1.2.1 Scientists should immediately notify their EPM.

2.5.1.2.2 JRSO staff should immediately notify their supervisor.

2.5.1.2.3 Siem staff should immediately notify the ODL Crewing Manager.

2.6 Before leaving for the airport, participants should prepare to fly safely by following [CDC guidelines for travelers](#). If traveling with any other participants, please note this information because this information may be needed for contact tracing.

2.7 Most pathways for COVID reaching the ship are during travel from home isolation to the ship. It is, therefore, essential that participants, whether vaccinated or not, adhere to the COPE protocols and stay particularly vigilant as they travel to the ship. Breakthrough cases are possible and infection rates are still high in many source nations of participants and in the airports, airplanes, local transport, and hotels through which the participants pass on their way to the ship. Because the ship is a congregate setting where social distancing can be challenging and because IODP expeditions can operate many days from ports (i.e., critical care to treat severe COVID disease), preventing COVID infection from getting on the vessel is critical for the health of all participants and for successfully implementing the expedition.

3. Protocols in Port Prior to Moving Onboard the JR

3.1. The ODL Commercial Operations Manager and a few additional staff from the JRSO and Siem are attending upcoming port calls, contingent on risk levels and travel restrictions. All non-sailing staff shall be vaccinated. The ODL Commercial Operations Manager will work with the Captain, who will have authority for decisions that need to be made in port, in consultation with the ship's doctor and shore management as appropriate. Should the JRSO Director and any managers be unable to attend port calls, the JRSO Operations Superintendent will be the senior JRSO staff in port. If the Operations Superintendent is unavailable, JRSO port decision-making falls to the shipboard Lab Officer and then EPM, in consultation with shore management as needed.

3.2. Transportation from the airport to hotel will be by prearranged transportation if possible.

3.2.1. If prearranged transportation is not possible, the traveler should seek transportation that allows as much social distancing as possible, rather than riding in crowded vans or buses. This approach also allows staggering of check-in at the hotel.

3.2.2. When transportation is arranged for a port, numbers should be limited to allow as much social distancing as possible based on the size of the vehicle. Please note those who travel with you because this information may be needed for contact tracing.

3.2.3. To the degree possible, separate transportation should be arranged for SBSC (JRSO and scientists) and crew to best manage cross-cohort spread.

3.3. Upon arriving at the hotel:

3.3.1. Essential items should be acquired before leaving home so that each CSS can check into the hotel, go immediately to their rooms, and begin to quarantine. They should not leave the hotel to purchase items. If an individual has forgotten something crucial, they may request assistance by contacting their supervisor or by directly contacting the JRSO Marine Logistics Coordinator or the ODL Commercial Operations Manager, who may be able to assist. In some cases, the front desk of the hotel may be able to assist directly.

3.3.2. As soon as possible, begin a period of self-isolation in the hotel room.

- Do not leave the hotel room except for emergencies, minimize personal contact with in-room/delivery food service staff, and otherwise have no personal contact with others except medical personnel conducting testing.
- Quarantines are very challenging, so all CSS should have a plan for in-room entertainment, exercise, additional preferred amenities (e.g., snacks, etc.), and social support.
- The selected hotel should have in-room service for meals.
- Ideally, the selected hotel will have windows that open or balconies to allow access to fresh air, although this may be impossible. Details will need to be worked out for each port.
- Hotels with amenities such as Wi-Fi, phone, TV, refrigerator, microwave, coffee maker, and bottled water will be sought but may not be available.
- The hotel should be instructed that room service personnel should leave food or beverages at the door and not wait at the door to personally handover.

3.4. Hotel quarantine, testing, and symptom monitoring:

3.4.1. All participants:

3.4.1.1. A 7-day quarantine with testing and symptom monitoring will be required for all personnel. Prearranged COVID-19 PCR tests will be conducted twice for all CSS before they are allowed to board the ship.

3.4.1.2. The first test will take place on day 4 of the quarantine (day 0 is arrival date).

3.4.1.3. The second test is planned for day 6, depending on local testing turnaround times. Participants with negative test results and no symptoms will be able to move onto the ship on day 7 of their quarantine.

3.4.1.4. During quarantine, report any COVID symptoms immediately (see 3.5.2).

3.4.2. The safest method for sample collection for testing is performed at individuals' rooms, if possible. If no company will provide sampling at everyone's room, the procedure and schedule must avoid clustering and long queues with maximum social distancing, masking, and in a well-ventilated environment.

3.4.3. Whenever possible, flights will be arranged to attempt to have participants arrive on the same day. Ultimately, the hour the flights arrive will vary. The length of the respective quarantine is, therefore, based on calendar days, reflecting the reality that flight itineraries will vary. The arrival days will be coordinated such that the move onboard date is the same for each group.

3.4.4. In most ports where a company is contracted to provide testing, results are communicated in batch to the ship's doctor and the Captain. Results will then be communicated to individuals as well as the ODL Commercial Operations Manager and JRSO expedition leadership (Ops Superintendent, LO, and EPM). If a test result is positive, the individual's supervisor will assist with contact tracing and providing assistance as required via ODL Commercial Operations Manager and/or ship's doctor. In the unusual circumstance that the test results are provided directly to the individual, they should provide those results to their supervisor immediately, who will circulate to the port management team.

3.4.5. A positive test during quarantine:

3.4.5.1. Additional testing may be conducted to verify and eliminate the chance of a false positive.

3.4.5.2. Individuals determined to be in close contact with someone who is infected will be required to stay in quarantine, which may be extended, and receive additional testing.

3.4.5.3. Housing arrangements will need to be made for an individual who tests positive and who may not be able to return home until health authorities clear them to do so and they meet transportation requirements.

3.4.5.4. Costs for hotel and per diem for JRSO staff will be covered based on the travel policy.

3.4.5.5. Scientists' expenses fall under their respective PMO policy.

3.4.5.6. Any medical care required for scientists or JRSO staff is to be covered by the individual's insurance.

3.4.5.7. Cost for housing and meals for the crew is covered by Siem Offshore (to be reimbursed by JRSO). Medical care, if needed, for the crew is covered by Siem Offshore.

3.5. During the time in the hotel:

3.5.1. Protocol for deliveries:

3.5.1.1. To minimize the chance of transmission during the quarantine period, participants should ensure they do not answer the door to receive an in-person hand off. Remind the hotel staff/delivery person to leave the delivery in front of the door and depart.

- 3.5.1.2. Wear a mask when opening the door for any reason (hanging the mask on door has been an effective measure so you don't forget).
- 3.5.1.3. After handling/removing packaging, hands should be washed/disinfected prior to eating.
- 3.5.2. Although the quarantine and testing protocol greatly reduces post-quarantine transmission risk, it cannot completely eliminate the risk (i.e., false negatives of asymptomatic or pre-symptomatic individuals). Therefore, it is critical that all CSS monitor for and report any of the following to their supervisor for assessment by the ship's doctor.
 - Fever or chills
 - Cough
 - Shortness of breath or difficulty breathing
 - Fatigue
 - Muscle or body aches
 - Headache
 - New loss of taste or smell
 - Sore throat
 - Itchy or scratchy throat
 - Congestion or runny nose
 - Nausea or vomiting
 - Diarrhea
- 3.5.3. Expedition preparation should be conducted.
 - 3.5.3.1. Scientists can use Zoom to start preparation activities and training with JRSO staff.
 - 3.5.3.2. JRSO staff and crew conduct crossover remotely (Zoom or phone).
 - 3.5.3.3. Stagger checking out at the hotel to prevent clustering in a line at the front desk and remain socially distanced in the lobby while preparing to go to the ship.

4. Port Calls

- 4.1 Off-going CSS will depart the vessel prior to the oncoming CSS arriving, except for essential personnel for which in-person crossovers are required.
- 4.2 When feasible, all sailing personnel board on the same day.
 - 4.2.1 The transition from the hotel to the ship (sometimes via immigration) poses a potential risk of infection post-quarantine.
 - 4.2.2 All participants will wear respirator style masks (e.g., N95, KN95, KN94, FFP2/P2/KMOEL/DS), which will be provided if needed, from exiting the hotel room through arrival on the ship. Exhaust valves are not acceptable.

- 4.2.3 Participants should attempt to keep socially distant as much as possible during check out and transportation to the ship.
 - 4.2.3.1 Management in port will work with hotel staff to determine if remote/electronic check out is possible, which would reduce exposure that otherwise could occur during checking out in the lobby.
 - 4.2.3.2 If remote check out is not supported by the hotel, avoid bunching up in the lobby, maintain social distance, and wear a respirator style mask.
- 4.2.4 The departing crew will disinfect high-touch surfaces prior to departure.
- 4.2.5 The shipboard complement will move onboard after being screened on the dock. Screening requires that all CSS complete Siem Offshore form FO-630, which asks the individual if they are experiencing COVID-19 symptoms and requires that the individual's temperature be taken. If the individual has no symptoms and a normal body temperature, they may board the ship. If not, then the individual returns to the hotel for 2 days to see if symptoms resolve and to be tested again for COVID-19.
- 4.3 Once on board, all personnel are restricted to the vessel, except for those who must work on the dock.
- 4.4 Minimize interactions of staff with port personnel.
- 4.5 The decision to remove anyone from the ship once the oncoming CSS has boarded the vessel back into the community will require another 7-day quarantine period (the previous, more conservative CDC guidance) in the hotel for that individual, which may result in missing the expedition.
- 4.6 Minimize interaction between SBSC and crew and within each group as possible.
- 4.7 Gangway security and safety measures include the following:
 - 4.7.1 Siem Offshore Form FO-630, available at the gangway, must be completed before boarding the ship.
 - 4.7.2 Only shipboard personnel can come onboard (with exception of vendors as required by Siem Offshore or the JRSO, and the normal required government officials and technical personnel associated with vessel coming in and out of port), and only authorized personnel can leave the vessel.
 - 4.7.3 A sanitization station is available on the gangway with extra masks, work gloves, hand sanitizer, and disposal bin.
 - 4.7.4 Any staff going from the vessel to the dock must wear masks and eyewear.
 - 4.7.5 Staff returning from the dock must sanitize their hands.
- 4.8 If mission-critical personnel (e.g., Captain, Doctor, Operations Superintendent) or a substantial number of participants that would impact implementation of the expedition are not allowed to board the vessel due to these protocols, the expedition may be delayed while replacement(s) are found or until the individual(s) have recovered

sufficiently to be released from isolation (see isolation in Section 7.6). Replacement personnel will be required to undergo the full quarantine protocol. If key personnel are not allowed onboard, it is possible that the expedition could be delayed or cancelled, which would be determined based on the specifics of the cases involved, vaccination status and medical history of the individuals, and the distance to shore of the operating area.

5. Shipboard Mitigation Period

This period begins from the day of crew change and extends to 14 days from the ship's departure from port (i.e., last exposure via the pilot), assuming there are no suspected COVID-19 cases identified during that time. Each department needs to strictly adhere to the shipboard mitigation protocol and stay vigilant. Depending on circumstances, the shipboard mitigation period may be shortened upon request from Captain, Drilling Supervisor, LO, and/or Operations Superintendent and approval by JRSO and Siem Management. The goal of the mitigation period is to reduce the potential of exposure to COVID-19 that may not have been identified during the quarantine and testing period or during the transition from quarantine to the ship by having staff take the following steps:

5.1 Shipboard mitigation testing

- 5.1.1 To detect possible infections that may not have been identified during the hotel quarantine or that possibly were acquired during the transition from quarantine to the ship, a testing protocol will be initiated after moving onboard until the end of the mitigation period.
- 5.1.2 Daily antigen testing will be conducted from the day after moving onboard until 8 days from departure, and then every other day until the end of the mitigation period. One PCR test will be conducted instead of an antigen test while in port, typically on the day prior to departure.

5.2 **Wear masks in indoor laboratories and common areas, including passageways, and outdoors when working in close quarters.** This is a critical mitigation measure to prevent spread of COVID-19.

- 5.2.1 Masks should cover mouth and nose and fit snugly.
- 5.2.2 [Public health guidance](#) on masking with the prevalence of the more infectious Omicron variant recommends use of quality, well fitted masks, preferably high filtration respirators (e.g., N95, KN95, KN94, FFP2/P2/KMOEL/DS). Masks with valves are not acceptable.
- 5.2.3 High filtration masks will be provided onboard with some options on mask type. Face fit and comfort are key to effective mask use. If you have a preferred mask, you are welcome to bring your own supply.

- 5.2.4 Surgical masks have better filtration efficiency than cloth and are acceptable if properly fitted with a good face seal. Surgical masks that do not fit well can be improved by double masking with a cloth mask on top.
- 5.2.5 Cloth masks, gaiters, and similar masks are much less effective against Omicron and should not be used without the addition of another approved type of mask.
- 5.3 Be ready to work assigned shifts upon boarding the ship.
- 5.4 Work in small groups when possible.
- 5.5 Minimize mingling with/in large groups.
- 5.6 Disinfect work areas and high-use touch surfaces.
- 5.7 Assign single-user instruments/computers/microscopes, as practical.
- 5.8 Where practicable, galley use will be regulated as follows:
 - 5.8.1 Galley access will be scheduled to minimize interaction between shifts and groups.
 - 5.8.2 Scheduling will be used to minimize the number of people in the galley at a time.
 - 5.8.2.1 This number should be small enough to allow diners to socially distance as much as possible.
 - 5.8.2.2 Taking meals to other locations to eat, when available, is encouraged.
 - 5.8.2.3 If eating in the mess hall, please depart when finished and do not linger for conversations, etc.
 - 5.8.3 Enhanced barriers will be used between the food-serving line and diners.
 - 5.8.4 Galley restriction phase-out plan: during the 2nd week of mitigation period, salads, bread, and soups may be brought out; masks are required when using self-service items.
- 5.9 Access to some common areas may be prohibited or limited, including the following:
 - 5.9.1 Conference room, which will preferably be limited to 10 or fewer individuals.
 - 5.9.1.1 Conference room restriction phase-out plan: increased meeting numbers allowed, if masked, when testing phases into every other day during week two of the mitigation period.
 - 5.9.2 Gym usage will be restricted to one maskless person at a time, implemented as 30 min slots, maximum two slots in a row
 - 5.9.2.1 Gym restriction phase out plan: during 2nd week, gym use may increase to two maskless people at a time exercising in different zones.
 - 5.9.3 Movie room and lounges may be scheduled for small groups from the same shift, or access may need to be totally prohibited.
- 5.10 Safety drills will be staggered into groups, when feasible.

5.11 Shift crossovers:

- 5.11.1 During the mitigation period, no room or office cleaning by Entier staff should occur. Cleaning supplies, towel, and bed linen replacement will be provided to each room occupant as needed.
- 5.11.2 Following the mitigation period, CSS will ensure their cabin is vacant during scheduled times to allow Entier staff to clean and replace linens.
- 5.11.3 Those sharing a common room will leave their rooms before their shift starts and not return to their room until after their shift to minimize contact between roommates.
- 5.11.4 Where practicable, exchange of information during crossovers should be done remotely during the mitigation period, and when not possible, social distance as much as possible and wear masks.

6. Dealing with a Suspected COVID-19 Case Onboard

Everyone onboard will follow Siem Offshore's procedures:

6.1 Predefined isolation cabins or other rooms (at the Captain's discretion) will be available for housing suspected cases of COVID-19.

6.1.1 For each expedition, the ship's doctor, Captain, and JRSO LO will develop a plan to redistribute personnel to make isolation rooms available, if needed. Redistribution that results in double occupation of rooms should be with personnel on opposite shifts.

6.1.1.1 The vessel's air handling system includes MERV 13 hospital-grade filtration and ultraviolet light disinfecting systems in the accommodations. These systems provide assurance that isolating an individual in a cabin protects the other crew and scientists onboard.

6.1.2 All designated isolation cabins should have a hand sanitizer dispenser and designated lined disposal bin with cover outside the door.

6.1.3 If a confirmed case onboard occurs while the vessel is in port, it may be possible to move the case to a hotel, if allowed by the health and port authority, which will provide additional isolation flexibility for preventing additional spread of the virus.

6.2 If it is determined that there is a suspected case of COVID-19 onboard, the patient will be isolated immediately in a predefined isolation cabin with the door closed and implement the following measures:

6.2.1 The patient will be given a rapid antigen test. If positive, a second test will be administered to confirm the result. Additional tests may be necessary if conflicting results are obtained. Even when the results are negative, if the patient has other COVID-19 symptoms, they will be treated as a suspected case.

- 6.2.2 Instruct the patient to wear a mask and regularly wash hands with soap and water and use alcohol-based hand sanitizer.
 - 6.2.3 Make sure all persons entering the isolation room wear proper PPE and perform hand hygiene using the hand sanitizer outside the room after removal of PPE.
 - 6.2.4 Perform hand hygiene following all contact with ill person's immediate environment.
 - 6.2.5 PPE used by the care provider should be disposed in a designated double-lined bin with cover outside the isolation cabin. Do not re-use. Tissues, masks, and other waste generated by ill persons or in the care of ill persons should be placed in a double-lined container in the ill person's room and treated as biological waste and incinerated.
 - 6.2.6 Limit the number of persons entering the isolation room to Medic or Medical Person-in-Charge or two other crewmembers (AM/PM shifts), in charge of cleaning the cabin and/or delivering food. They should use proper PPE when entering the patients' cabin. Ideally, assign one who is in good health without risk conditions. Visitors are not allowed.
 - 6.2.7 If patient is strong enough, their food tray can be placed in front of their door cabin on a table for pick up. This way, the crew member delivering food need not wear PPE. Full PPE is required to retrieve food tray.
 - 6.2.8 Food to the patient can be served using single-use utensils and disposed of and incinerated afterward.
 - 6.2.9 Master shall consider implementing more frequent cleaning and sanitizing regime than usual (disinfecting tables/handrails/door knobs/soles, etc.).
 - 6.2.10 Limit the movement and transport of the patient from the isolation room for essential purposes only. If transport is necessary, the patient should wear a mask and any surfaces touched by the patient should be cleaned and disinfected.
- 6.3 Individuals who had close contact with the symptomatic person should be notified and closely monitor themselves for possible onset of symptoms and isolate as necessary.
- 6.3.1 Contact tracing will be used to identify individuals that they came into close contact recently.
 - 6.3.1.1 These individuals may need to isolate.
- 6.4 Other actions that may be taken on the ship to reduce the potential spread of COVID-19, particularly in the event of suspected or confirmed COVID-19 cases, include
- 6.4.1 Limiting self-serve food stations with unwrapped food items, during the first week of the mitigation period.
 - 6.4.2 Wrapping individual food items, like desserts and cheeses.
 - 6.4.3 Providing individually wrapped cutlery.

- 6.4.4 Using only bottle spigots on water fountains.
- 6.4.5 Being proactive in reminding coworkers to wear masks fitted properly when they forget or have masks positioned inappropriately.
- 6.5 Suspected cases shall be reported to the JR's Vessel Manager, Crewing Manager, and the JRSO.
- 6.6 Release from isolation will follow Section 7.6 and medical history of the individual.

7. Medivac or Return to Port

- 7.1 If shore-based medical treatment is needed for a positive or suspected case(s) of COVID-19 onboard, the Master should report the event as soon as possible to the next port of call, to allow the competent authority at the port to arrange, depending on the situation, medical evacuation or special arrangements for disembarkation and hospitalization of the patient.
 - 7.1.1 The ship may be asked to proceed to another nearby port if this capacity is not available, or if warranted by the critical medical status of the suspect case of COVID-19.
- 7.2 Disembarkation of the patient should take place in a controlled way to avoid any contact with other persons on board the ship, and the patient should wear a medical mask.
- 7.3 Personnel escorting the patient during the medical evacuation should wear suitable PPE. All equipment used for transporting the patient must be cleaned and disinfected after use or disposed of if relevant.
- 7.4 The cabin or quarters where the suspected case of COVID-19 was isolated and managed should be thoroughly cleaned according to current best practices.
- 7.5 If the return to port is related to COVID cases that are not severe, arrangements should be made with the port authority via the agent for isolation period in a suitable hotel.
- 7.6 Isolation and resumption of duties
 - 7.6.1 The recent CDC guidance on ending isolation after 5 days (updated on 9 January 2022) is inadequate for implementation on a vessel based on available viral shedding data (e.g., Kissler et al., 2021). Instead, we will be implementing the previous standard of a 10-day isolation period, if no fever for 24 hr, improving symptoms, and a negative antigen test.
 - 7.6.1.1 In some circumstances for a vaccinated individual, we may allow boarding the vessel after an [isolation period of 7 days](#), with negative antigen tests on days 6 and 7, with no fever for 24 hr, and improving symptoms, but only if it is possible to strictly isolate the individual until day 10 onboard.
 - 7.6.2 Isolation begins on the day of first symptoms (day 0) or positive test if asymptomatic. The isolation clock restarts if symptoms appear after a positive test.

- 7.6.3 Once an individual has been confirmed as a positive case, antigen tests rather than PCR tests should be used for assessing if the individual is still infectious, with the caveat that false negatives may occur. PCR tests should not be used to confirm that the individual is infectious because it has been demonstrated that some people continue to test PCR-positive for another 60-90 days.
- 7.6.4 Operations may resume once critical personnel have returned to duty. Non-essential personnel may be left on shore.
- 7.6.5 The port health authority/public health department may have different requirements for isolation, which we are obligated to follow. The exception would be if the COPE protocol is more conservative, which would then govern return to the vessel and resumption of duties.

8. Ensuring a Safe Return Home

- 8.1 When entering a port at the end of an expedition or for a tie-up period after a long transit, shipboard mitigation procedures will begin as soon as the harbor pilot or other shore personnel board the ship. These procedures need not be as extensive as those at the beginning of an expedition, especially when contact is limited, as when the harbor pilot interacts with the Captain and a few others on the Bridge. In such cases, masking and social distancing may be sufficient measures. If extensive contact with shore personnel occurs, then additional procedures like those outlined for the beginning of an expedition should be followed (see Section 5).
- 8.2 Travel itineraries home should be arranged to minimize time in the port city to reduce the risk of being exposed to COVID-19 while in port.
 - 8.2.1 When possible, disembarking CSS should travel directly from the ship to the airport for returning home.
 - 8.2.2 Travel itineraries may need to accommodate testing requirements for return flights and could impact planned crossover dates in port.
- 8.3 Extended stays in port unrelated to an expedition or travel other than to an individual's home base will be considered personal travel, for which the traveler is responsible. Personal travel should follow local laws, as well as laws and travel restrictions imposed by destination countries, and may be further limited by travel restrictions imposed by the individual's employer. If the individual's country requires a negative COVID-19 test to return home, obtaining the test during or following personal travel will be the responsibility of the individual.
- 8.4 Upon returning home from an expedition, all CSS must be prepared to follow local laws, guidance, or employer requirements on self-isolating/quarantining.

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