Healthy GateWays

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Guidelines for cruise ship operations in response to the COVID-19 pandemic

Version 5

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These guidelines are not up to date.

Up to date guidelines for COVID-19 during routine cruise ship operations are going to be developed in the framework of the HEALTHY SAILING project and will be published when available here: https://healthysailing.eu/

For up to date guidelines about COVID-19 case management and for responding to a COVID-19 outbreak on board cruise ships please consult the EU HEALTHY GATEWAYS document: "Advice for cruise ship operators for preparedness and response to an outbreak of COVID-19"
*(*https://www.healthygateways.eu/Portals/0/plcdocs/EUHG_Outbreak_management_CoV_June2022.pdf*)*

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1. Introduction

In January 2020 the European Union (EU) HEALTHY GATEWAYS joint action switched from operating under the inter-epidemic mode to operating in an emergency mode, at the request of the European Commission's Directorate-General for Health and Food Safety (DG SANTE). As stated in the Grant Agreement, the objective of the emergency mode is to support coherent response of EU Member States (MS) according to Decision No 1082/2013/EU and the implementation of temporary recommendations issued by the World Health Organization (WHO). Under this emergency mode, EU HEALTHY GATEWAYS is available to respond to any specific requests from DG SANTE or EU/EEA MS to provide technical support, advice or ad-hoc training at points of entry as needed.

An ad-hoc working group was established with members from the EU HEALTHY GATEWAYS joint action consortium. The names and affiliations of the working group members who prepared this document are listed at the end of the document. The working group produced the following guidance, considering the Communications, Recommendations and materials issued by the Commission about travel during the coronavirus pandemic (https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/travel-during-coronavirus-pandemic_en). Moreover, experience gained during the cruises conducted in 2020 and 2021, as well as current evidence, the temporary recommendations from the WHO (https://www.who.int/emergencies/diseases/novel-coronavirus-2019) and the technical reports of the European Centre for Disease Prevention and Control (ECDC) (https://www.ecdc.europa.eu/en/coronavirus/guidance-and-technical-reports) on COVID-19 (as of 29 May 2022) were taken into consideration.

The guidance provided in this document is based on the current situation of the pandemic, and will be revised as needed after considering the epidemiological situation. This guidance does not and should not impact any safety, environmental protection or security standard on board a ship.

2. Purpose

Cruise ships are semi-closed environments providing shared facilities for many people on board. Since the beginning of the COVID-19 epidemic, outbreaks have been reported on board cruise ships affecting both passengers and crew. In 2020, unprecedented challenges were faced by the cruise ship industry, the public health authorities and all related sectors in dealing with cruise ship evacuations and management of COVID-19 outbreaks. EU HEALTHY GATEWAYS published the first version of the current document in 2020 when vaccines were not available, in an attempt to safely restart cruise ship activities after lifting restrictive measures. Introduced measures aimed at excluding infected persons from boarding a cruise ship, early detection and isolation of the first case, disembarkation and quarantine of close contacts in facilities ashore, which are all essential elements for effectively preventing COVID-19 outbreaks on board cruise ships (1).

The document was revised in 2021 considering the vaccine coverage among passengers and crew members. Vaccine uptake among the travelling population has increased significantly compared to the 2021 summer season in Europe (2). Consequently, the large proportion of passengers on cruise ships are better protected from serious illness and death from COVID-19, as a result of the currently available COVID-19 vaccines (2). Depending on the vaccination status of the population on board ships

(passengers and crew), cruises can be categorised as: a) ≥95% of passengers and crew vaccinated or recovered[2], b) unknown status of vaccination, c) <95% of passengers and crew vaccinated or recovered. Cruise lines have incorporated measures for COVID-19 prevention and control in their routine procedures. However, epidemiological evidence originating from cruise ship operations from US CDC surveillance of COVID-19 cases among passengers and crew of cruise ships (https://www.cdc.gov/quarantine/cruise/cruise-ship-color-status.html) and from EU MS authorities have shown that outbreaks can still occur and disrupt cruise ship operations, although severe disease and deaths among vaccinated individuals are rare. Competent authorities may face high pressure when dealing with potential outbreaks involving symptomatic and asymptomatic cases among passengers and crew who will need isolation on board and/or in ashore facilities. In 2022, efforts from both the cruise industry and the public health authorities are focused on keeping cruise ships a safe place for travellers and staff, reducing the possibility of COVID-19 transmission among passengers and crew, and preventing large outbreaks.

The Communication "COVID-19 - Sustaining EU Preparedness and Response: Looking ahead" which was published by the European Commission on 26 April 2022, emphasises the importance of collective vigilance and preparedness (3). Moreover, it invites EU MS to move from emergency to a more sustainable approach, protecting health while keeping societies and the economy open and resilient. The latest update of the current document introduces advice for a gradual de-escalation of measures, with the objective in the medium and long term to incorporate measures into cruise ships' routine operations. In parallel, it is important to consider lessons learned and to have contingency plans in place to be reintroduced if needed.

ECDC and EASA guidelines related to air travel pointed out that a substantial proportion of the European population is not vaccinated, waning immunity following vaccination or infection is likely to appear, and as currently available vaccines do not provide full protection against infection and transmission, non-pharmaceutical interventions including face mask use and physical distancing should still be observed to minimise any residual risk of virus transmission during travel (4). Moreover, ECDC and EASA guidelines indicate that "medical face masks are among the most efficient means to prevent the transmission of SARS-CoV-2 and the wearing of masks should be considered in crowded indoor and outdoor settings, including air travel".

Implementation of the International Health Regulations (IHR) 2005 provisions by both the competent authorities at ports and the ship operators, regarding availability of contingency plans at designated ports and on board ships and core capacities for health measures application, are imperative to prevent COVID-19 outbreaks.

The purpose of this document is to provide general guidance to EU/EEA MS and to cruise lines about options for measures on cruise ships (of any capacity or flag state that sail on an international voyage) that could be applied in response to the COVID-19 pandemic in 2022.

[2] Cruises where the vaccination status of both passengers and crew members is known, and almost all of the passengers and all crew members on board are vaccinated or recovered (i.e. at least 95% of the crew members and at least 95% of the passengers are vaccinated or recovered).

Similar to other travellers, for cruise passengers, public health risks exist not only while travelling on board cruise ships, but during the entire journey beginning from home to the cruise ship, including the sites of embarkation/disembarkation and at all destinations visited en route.

The current guidance provides a list of measures to reduce the risk for introduction of COVID-19 onto the ship, transmission during cruise ship voyage, embarkation and disembarkation, and further provides options for preparedness to respond to potential COVID-19 cases among travellers (passengers and crew).

A strategy for reducing the risks for COVID-19 among cruise ship passengers and crew should cover the entire process, beginning at the time of booking and extending until passengers and crew have returned to their homes. National policies should be taken into consideration for health measures implementation and for accepting incoming tourists to cross borders and to board cruise ships at the turnaround ports should also be considered in cruise line plans.

The willingness and capacity of countries included in the itinerary should be explored, and arrangements should be in place with the ports of call in accordance with the "Tool for contingency plan development and assessment for ports" produced by EU HEALTHY GATEWAYS (5).

3. Definitions

Close contact: a close contact of a COVID-19 case is any person who had contact with a COVID-19 case within a timeframe ranging from 48 hours before the onset of symptoms of the case, or date of collection of a positive COVID-19 sample for an asymptomatic case, to 10 days after the onset of symptoms or date of collection of positive sample if asymptomatic.

A. High-risk exposure (close) contact:

- A person who had face-to-face contact with a COVID 19 case within 1.5 metres for more than a total of 15 minutes over a 24-hour period (even if not consecutive). For passengers this could include, but is not limited to, participating in common activities, attending a class or sharing the same social space such as at a restaurant. This also includes contact with intimate partners. For crew this may include working in the same area as a case or socialising with a case (including fellow crew members), waiting on a table where a case was dining or leading a social activity where the case was participating
- A person who had physical contact with a COVID-19 case (e.g. such as handshaking, hugging, kissing, sexual activity).
- A person who has stayed in the same cabin with a COVID-19 case.
- A person who had direct contact with infectious secretions of a COVID-19 case (e.g. being coughed on).
- A crew member who entered the cabin of a case while they were inside the cabin, without wearing appropriate PPE.

- Healthcare workers or other persons providing direct care for a known case or handling specimens of a case without wearing appropriate PPE or with a possible breach of PPE or hand hygiene.

B. Low-risk exposure (casual) contact:

Risk assessment of individual cases and their contacts will be conducted by the ship's medical staff and/or public health authorities to identify the low-risk exposure (casual) contacts. It could be possible that all persons on the ship who are not "high-risk contacts" could be considered as low-risk exposure (casual) contacts.

Any data available from contact tracing technologies should also be considered.

Possible case of COVID-19: any person with at least one of the following symptoms: runny nose, sore throat, headache, cough, fever, shortness of breath, sudden onset of anosmia, ageusia or dysgeusia, vomiting or diarrhoea. Additional less specific symptoms may include chills, muscle pain, fatigue (6).

Confirmed case of COVID-19: any person with a positive clinical sample for SARS-CoV-2 nucleic acid or antigen.

Vaccinated individuals: a passenger or crew member who carries a proof of vaccination, and at least 14 days and no more than 270 days have passed since the last dose of the primary vaccination series or if the person has received a booster (i.e. 3rd dose) dose (exceptions apply for persons under the age of 18; see definition for "Proof of vaccination"). Children under the age of 12 years are not required to have proof of vaccination and should not be considered when calculating the vaccination coverage among passengers on board.

Heterologous vaccination is acceptable as indicted in the EMA and WHO recommendations (7, 8)[3].

Acceptable vaccines are considered those listed in the European Medicines Agency (EMA) or WHO lists.

Listed vaccine (as of 18 March 2022)*		EMA list	WHO list	Doses in Series	Type
1	Comirnaty (BioNTech and Pfizer)	Yes	Yes	2	mRNA
2	Spikevax (Moderna)	Yes	Yes	2	mRNA
3	Janssen (Johnson & Johnson)	Yes	Yes	1	Vectored
4	Vaxzevria (AstraZeneca, Covishield)	Yes	Yes	2	Vectored
5	Nuvaxovid (Novavax)	Yes	Yes	2	Protein subunit
6	Sinopharm	No	Yes	2	Inactivated
7	Sinovac-CoronaVac	No	Yes	2	Inactivated
8	Covaxin	No	Yes	2	Inactivated
9	Covovax	No	Yes	2	Protein subunit

[3] Depending on product availability, countries implementing WHO EUL inactivated vaccines for initial doses may consider using WHO Emergency Use Listing (EUL) vectored or mRNA vaccines for subsequent doses.
• Depending on product availability, countries implementing WHO EUL vectored vaccines for initial doses may consider using WHO EUL mRNA vaccines for subsequent doses.
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**Updates can be found in: https://www.ema.europa.eu/en/human-regulatory/overview/public-health-threats/coronavirus-disease-covid-19/treatments-vaccines/covid-19-vaccines and https://www.who.int/emergencies/diseases/novel-coronavirus-2019/covid-19-vaccines*

Proof of vaccination: A valid Digital COVID-19 Certificate (DCC)[4] or certificate/document to include the following information: (a) name: surname(s) and forename(s); (b) date of birth; (c) disease or agent targeted: COVID-19 (SARS-CoV-2 or one of its variants); (d) COVID-19 vaccine or prophylaxis; (e) COVID-19 vaccine product name; (f) COVID-19 vaccine marketing authorisation holder or manufacturer; (g) number in a series of doses as well as the overall number of doses in the series; (h) date of vaccination, indicating the date of the latest dose received (certificates held by persons aged 18 and above indicating the completion of the primary vaccination series shall be accepted only if not more than 270 days have passed since the date of the latest dose in that series); (i) country of vaccination; (j) certificate issuer; (k) a unique certificate identifier or other means to validate the vaccination such as contact information in order to communicate with the healthcare provider or clinic site that issued the certificate, or the vaccination registry site. An individual will be considered as vaccinated if the above-mentioned definition "Vaccinated individual" is fulfilled.

Proof of recovery: A valid Digital COVID-19 Certificate (DCC) or a document/certificate issued by a competent authority and containing the following data fields: (a) name: surname(s) and forename(s); (b) date of birth; (c) disease or agent the citizen has recovered: COVID-19 (SARS-CoV-2 or one of its variants); (d) date of first positive test result (NAAT or RADT); (e) Member State or third country in which test was carried out; (f) certificate issuer; (g) certificate valid from; (h) certificate valid until (not more than 180 days after the date of first positive test result); (i) a unique certificate identifier or other means to validate the proof of recovery such as contact information in order to communicate with the issuing authority.

Proof of diagnostic test result: A valid Digital COVID-19 Certificate (DCC) or a document/certificate issued by a competent authority or another authorised body such as an approved laboratory or testing facility and containing the following data fields: (a) name: surname(s) and forename(s); (b) date of birth; (c) disease or agent targeted: COVID-19 (SARS-CoV-2 or one of its variants); (d) the type of test; (e) test name (optional for NAAT test); (f) test manufacturer (optional for NAAT test); (g) date and time of the test sample collection; (h) result of the test; (i) testing centre or facility (optional for rapid antigen test); (j) Member State or third country in which the test was carried out; (k) certificate issuer; (l) a unique certificate identifier or other means to validate the diagnostic test such as contact information in order to communicate with the issuing authority.

Previously infected individuals: crew members or passengers who have recovered from a SARS-CoV-2 infection and less than 180 days have passed since the date of positive test result (NAAT or other RADT).

Isolation: separation of ill persons from others in such a manner as to prevent the spread of infection.

Quarantine: the restriction of activities and/or separation from others of persons who are not ill but have been exposed to COVID-19 in such a manner as to prevent the possible spread of infection.

[4] https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/safe-covid-19-vaccines-europeans/eu-digital-covid-certificate_en

Nucleic Acid Amplification Test (NAAT): RT-PCR or other Nucleic Acid Amplification Test (NAAT), which should have the CE certification marking and should be in the list of the JRC IVD database (https://covid-19-diagnostics.jrc.ec.europa.eu/) or in the list of FDA with the in Vitro Diagnostics EUAs - Molecular Diagnostic Tests for SARS-CoV-2 and authorised for screening (testing asymptomatic individuals without known exposure) and can be used at home or otherwise as specified in the authorization list for certified laboratories or health care settings: https://www.fda.gov/medical-devices/coronavirus-disease-2019-covid-19-emergency-use-authorizations-medical-devices/in-vitro-diagnostics-euas-molecular-diagnostic-tests-sars-cov-2#individual-molecular. Further information on diagnostics can be found on "FIND", the global alliance for diagnostics: https://www.finddx.org/

Rapid antigen detection test (RADT): any type of RADT listed in the document "Common list of COVID-19 rapid antigen tests, including those of which their test results are mutually recognised, and a common standardised set of data to be included in COVID-19 test result certificates", https://ec.europa.eu/health/system/files/2022-03/covid-19_rat_common-list_en.pdf (9).

Home port: is the port where cruise ship passengers embark to start the cruise and disembark the cruise ship at the end of the cruise. The home port should fulfil the criteria of a contingency port. Each ship should have, except from the home port, one additional contingency port when sailing on a longer than 7-night itinerary. The home port should always be the contingency port, but additional contingency ports could be defined.

Contingency port: is the port for which interoperability of the ship's contingency plan and the port's contingency plan has been ensured, and agreed that any potential COVID-19 outbreak on board this cruise ship will be managed at this port, including complete evacuation of the cruise ship if needed and isolation/quarantine of cases/contacts.

Transit port: is the port of call which is an intermediate stop for a cruise ship on its sailing itinerary, where passengers will get on or off ship for excursions.

4. Essential prerequisites

According to the IHR 2005, ports must have the capacities to provide appropriate public health emergency response, by establishing and maintaining a public health emergency contingency plan. Interoperability of the port public health emergency contingency plan with the cruise ship contingency plan/outbreak management plan should be planned as described in the "Tool for contingency plan development and assessment for ports" produced by EU HEALTHY GATEWAYS (5).

For each cruise ship operating in the waters of an EU/EEA MS, a ship contingency plan/outbreak management plan for responding to a COVID-19 event should be prepared by the operating cruise line (see paragraph 6.2) and agreed to with the competent authority of the home port, in order to be reviewed and ensure interoperability with the port public health emergency contingency plan. It is recommended that both the cruise ship and the port designate a single point of contact to facilitate the coordination. In particular, before cruise lines resume operations in a port of an EU/EEA MS, competent authorities in the EU/EEA MS and ship operators should ensure that the following conditions are met and have been fully addressed in this cruise ship contingency

plan/outbreak management plan. The plan should cover any possible scenario including evacuation to hospitals for passengers and crew in need of care, and shore facilities for isolation and quarantine of COVID-19 cases and close contacts. It is advised that these are formalised in a written agreement between the cruise company and the authorities of the ports (home port or contingency port or transit port) to be visited, describing all the detailed arrangements agreed upon.

To ensure local port facilities are not overwhelmed, each port should define the maximum capacities of ships and travellers as described in the "Tool for contingency plan development and assessment for ports" produced by EU HEALTHY GATEWAYS (5).

4.1. Monitoring of epidemiological situation, rules and restrictions worldwide

Before and during cruise ship operations, it is essential that cruise lines monitor the epidemiological situation worldwide and at the cruise ship destinations, as well as at the places of origin of incoming passengers and crew (ECDC's COVID-19 Country Overview page: http://covid19-country-overviews.ecdc.europa.eu/#1_introduction). Monitoring of epidemiological data should include additionally any potential new variant of the SARS-CoV-2 virus, which could undermine the preventive measures applied. This will help assess the risk and adapt policies for screening and evaluating cruise ship passengers and crew members from countries with a high incidence of COVID-19, and furthermore to avoid destinations in countries with a high incidence of COVID-19. Cruise lines should have access to real-time information on the situation regarding borders, travel restrictions, travel advice, public health measures and safety measures at the destination ports (10). The European Commission has a dedicated website with an interactive map combining information from Member States and the tourism and travel industry, which is available at: https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/travel-and-transportation-during-coronavirus-pandemic_en and https://reopen.europa.eu/en. Worldwide maps are available from the WHO website: https://covid19.who.int/.

4.2. Written contingency plan/outbreak management plan for COVID-19

Each cruise ship should have in place an up to date and tested contingency plan/outbreak management plan for the prevention and control of possible cases of COVID-19 as described in paragraph 6.2. Interoperability of the ship contingency plan/outbreak management plan, and the home port public health emergency contingency plan and any other contingency port should be ensured.

4.3. Arrangements for medical treatment and ambulance services

Cruise ship operators should check and ensure with ports of call that, if needed, arrangements can be made for passengers and crew members to receive medical treatment ashore (including possible air evacuation if needed). This should be clearly described in both written contingency plans of cruise ships and at least the home port, with the possibility of also using additional contingency ports during the voyage.

4.4. Arrangements for repatriation

Cruise ship operators should ensure with ports along the route that, if needed, repatriations and crew changes can be organised. It is recommended that cruise lines have in place repatriation plans for passengers and crew members, considering different scenarios for partial or complete ship evacuation in the event of a COVID-19 outbreak. Repatriation and visa arrangements should be the responsibility of the cruise ship operators, unless these are covered by the passengers' travel insurance. Cruise ships' home ports should have airports operating international flights allowing repatriation of passengers and crew as necessary. Repatriation of passengers and crew are responsibilities of the ship operators (unless these are covered by the passengers' travel insurance) and should be completed in consultation and in accordance with the countries' rules. Criteria for allowing repatriation and air travel based on exposure to COVID-19 cases and laboratory results of passengers and crew should also be considered in the planning process, by both the competent authorities at ports and the cruise ship operator. In addition, airline public health policies and public health policies of home countries should be considered in planning of repatriation processes. Crew members should be considered as essential workers and allowed to also travel during COVID-19 travel restrictions.

4.5. Arrangements for quarantine of unvaccinated close contacts (exposed passengers or crew members with negative RT-PCR or RADT test results for SARS-CoV-2) and measures for vaccinated close contacts

Arrangements should be made between the cruise line and the local/national authorities of the home port (and additionally other contingency ports of call, if applicable) for quarantine facilities and procedures to be followed for unvaccinated close contacts, if the country at the port of call requires quarantine of unvaccinated contacts. The facilities should be agreed upon and pre-specified (e.g. hotels), as well as the cost recovery for the health measures implementation. Residents of the country of disembarkation could be quarantined at home, according to local/national rules and procedures. Transport plans and hygiene protocols should be included in the contingency plan of the port, as well as the cruise ship contingency plan/outbreak management plan.

The procedures for management of close contacts will be in accordance to the port of call rules. Procedures for management of close contacts can be found in the EU HEALTHY GATEWAYS Advice for cruise ship operators for preparedness and response to an outbreak of COVID-19, available at: https://www.healthygateways.eu/Novel-coronavirus.

The competent port health authority of each port in the itinerary should decide if the close contacts that have been exposed to a confirmed case of COVID-19 should disembark, and if required by national rules, be quarantined and monitored (self-monitored or otherwise according to the country procedures) in quarantine facilities ashore in accordance with the local rules, or if they should remain on board provided that the conditions described below are met.

Unvaccinated close contacts (crew members and passengers) may remain on board the ship in quarantine if single occupancy cabins, with natural light if possible, are available in a designated

quarantine area that has limited access, where precautionary measures can be closely monitored and controlled.

Ship owners, crew managers and other ship operators (or their representatives) should ensure that following a confirmed COVID-19 case, the below procedures are implemented[5]:

- Testing all close contacts of a confirmed case by NAAT or by RADT, and quarantine until test results are available.
- If contacts test positive, they should be isolated as described in paragraph 4.6 and in the EU HEALTHY GATEWAYS Advice for cruise ship operators for preparedness and response to an outbreak of COVID-19, available at: https://www.healthygateways.eu/Novel-coronavirus.
    - **Vaccinated or recovered contacts** (passengers or crew members) who have been identified as close contacts: should
        - wear a high-efficiency (FFP2 or equivalent) mask that fits well for 10 days,
          AND
        - be tested by RADT or RT-PCR on day 5,
          AND
        - perform self-monitoring for symptoms, wear a mask, keep distance from others and avoid contact with vulnerable persons, if possible.
    - **For unvaccinated close contacts** (passengers or crew members) exposed to COVID-19, the following quarantine period is recommended:
        - 5 days quarantine,
          AND
        - RADT or RT-PCR test on day 5,
          AND
        - 5 additional days wearing a high-efficiency (FFP2 or equivalent) mask that fits well.

Control measures should include checks to ensure those in quarantine always remain in their cabin, that no cabin visitors are allowed, and that strict infection control procedures are followed for the provision of food and other services. Records of the quarantine measures taken and control measures for enforcement of quarantine should be maintained and available to authorities during inspections.

Different scenarios with the expected numbers of persons to be quarantined should be considered and included in the planning and arrangements. Article 40 of IHR postulates that no charge shall be made for appropriate isolation or quarantine requirements of travellers, but this has to be checked by the cruise line if ports of call are complying.

[5] The below recommendations were formed based on the current variants of SARS-CoV-2 and are subject to change if new variants of concern emerge.

Vaccinated or recovered close contacts who have disembarked from the ship should be managed in accordance to the rules and regulations of the country where they have disembarked.

4.6. Arrangements for isolation of passengers or crew members tested positive for SARS-CoV-2

Arrangements should be made between the cruise line and the local/national authorities of the home port (and if applicable any additional contingency ports of call) for isolation procedures and facilities for symptomatic/ asymptomatic/ pre-symptomatic infected travellers (persons with positive RT-PCR test or rapid antigen detection test (RADT) results for SARS-CoV-2). The facilities should be pre-specified (e.g. hospitals, hotels), as should the cost recovery for the health measures implementation. The competent port health authority should decide if persons who have tested positive for SARS-CoV-2 should disembark or not (in accordance with the EU HEALTHY GATEWAYS "Advice for cruise ship operators for preparedness and response to an outbreak of COVID-19", available at: https://www.healthygateways.eu/Novel-coronavirus). Different scenarios with the expected number of persons to be isolated should be considered and included in the planning and arrangements made between the cruise line and the local/national authority.

Isolation of cases should take place either on board or ashore as follows, or in accordance with the country's national rules (11, 12):

- **Unvaccinated cases of COVID-19**, should be isolated for 10 days after the onset of symptoms (or from the date of their diagnosis in case they are asymptomatic), or until two consecutive negative RADT or NAAT tests starting on at least day 3 after the onset of symptoms (or from the date of their diagnosis in case they are asymptomatic) with a minimum interval of 24 hours.
- **Vaccinated cases of COVID-19**, should be isolated for 6 days after the onset of symptoms (or from the date of their diagnosis in case they are asymptomatic) with a negative RADT or NAAT on day 6, or until two consecutive negative RADT or NAAT tests starting on day 3 after the onset of symptoms (or from the date of their diagnosis in case they are asymptomatic) with a minimum interval of 24 hours.

4.7. Adequate testing capacity for SARS-CoV-2 infection on board or in cooperation with shore-based laboratories

Before starting journeys, arrangements should be made to ensure that cruise ships have adequate laboratory diagnostic testing capacity for SARS-CoV-2 (RADT and/or NAAT) on board and/or through arrangements with shore side laboratories, to be used when a passenger or crew member is suspected of being infected, or as part of routine testing of passengers and crew (10). Arrangements should be made between the cruise line and laboratories ashore to ensure that RT-PCR tests can be organised and conducted ashore when needed, unless the competent authority at the port of call has undertaken the responsibility to provide/arrange laboratory support. The cruise lines are recommended to ensure that the laboratories ashore are certified (e.g. for ISO 9001) and are accredited according to ISO 15189:2012 to perform RT-PCR tests (lists of accredited laboratories can be found in the accreditation body of each country). RADTs can be

used according to the ECDC guidance: https://www.ecdc.europa.eu/en/publications-data/options-use-rapid-antigen-tests-covid-19-eueea-first-update

Adequate supplies on board for conducting rapid diagnostic testing or NAAT should be ensured (13). Medical staff on board should be trained in sample collection and field laboratory testing performance would need to be verified. Laboratory performance needs to be assured in accordance with national regulations and international professional standards for medical laboratory services. The ECDC guidelines for clinical specimens' collection and testing should be followed (14).

4.8. Training of crew about COVID-19

All persons intending to work on board (ship officers, crew members) as well as external contractors who interact with passengers or crew on board or ashore should complete training about COVID-19, as described in paragraph 6.1. For external contractors, this training may be conducted internally, or they may be supplied with written guidance describing symptoms and requesting them to report symptoms, perform hand hygiene frequently, practise physical distancing, respiratory etiquette, and wear face masks. Knowledge about COVID-19 should be regularly checked and reinforced using refresher training.

Regular table-top exercises or drills should be conducted (e.g. before resuming operations after changing crews, general on a monthly basis) to train all staff on procedures related to prevention, detection, surveillance, reporting and response to COVID-19, response time, departmental cooperation, procedures and equipment. A drill/table-top exercise normally includes participant instructions, scenarios and evaluation tools.

4.9. Commitment for immediate reporting to the next port of call of any possible and confirmed cases

An essential pre-requisite during cruise ship operations is the timely reporting of possible and confirmed COVID-19 cases, to the next port of call by submitting the Maritime Declaration of Health (MDH). Early detection and immediate reporting are key factors for preventing outbreaks of COVID-19 on board ships. Before cruise ship operations begin, all involved parties (National Single Window, ship agents, port state control authorities, and health authorities at all levels) must ensure that written and clearly defined procedures are agreed upon and implemented for immediate reporting through the MDH of any possible case of COVID-19 infection, to the health authority at the next port of call. The MDH should include all cases of COVID-19 from the commencement of the voyage, even if these cases have disembarked in a previous port of the itinerary, or even if patients have recovered.

Any previous practice/policies for reporting of Influenza-Like Illness (ILI) aggregated data only at the end of voyages, should be stopped. This approach should be replaced by routine testing, actively looking for any person on board meeting the definition of a possible COVID-19 case, immediately reporting to the next port of call, and activating a ship contingency plan/outbreak management plan for management of the confirmed case and contacts.

After each voyage and within seven days, ship owners, other ship operators or their representatives sailing in EU waters should report aggregated data about COVID-19 cases in the "COVID-19 report form" of the EU Common Ship Sanitation Database (https://sis.shipsan.eu/).

It is recommended that EU/EEA MS competent authorities at the port level use the EU Common Ship Sanitation Database to record health measures taken in response to possible or confirmed COVID-19 cases on board cruise ships. In parallel, the authorities at central level (national IHR focal point) must always be informed by the authorities at local level.

4.10. Isolation and quarantine capacity on board cruise ships

Cruise ship operators could reduce the number of passengers and crew on board to ensure that measures related to physical distancing on board ships can be maintained, and that temporary isolation and quarantine of passengers and crew can take place individually in cabins.

Cruise ship operators are advised to ensure that they are able to individually and temporarily isolate or quarantine (in a single cabin) confirmed COVID-19 cases/contacts. Cruise ship operators are advised to maintain sufficient numbers of isolation cabins (single occupancy) for confirmed COVID-19 cases among passengers and crew (e.g. empty cabins to isolate 1-5% of the total number of passengers carried on board, and 1-5% of the total number of crew members carried on board).

Moreover, as far as possible, it is advised that the maximum number of crew members living in the same cabin and/or sharing a bathroom should not be more than two persons (this might not be feasible on board small vessels with a capacity of less than 100 guests).

Consideration should be given to embarking a sufficient number of critical staff on board, in order to respect and maintain the Minimum Safe Manning requirements in case of a COVID-19 outbreak on board.

4.11. Focused inspection on COVID-19 prevention and control for resuming cruise ship voyages by EU HEALTHY GATEWAYS

EU HEALTHY GATEWAYS will support the competent health authorities in EU/EEA MS after their request, to perform focused inspections on board each cruise ship and ashore, and review procedures and written plans of each cruise ship and cruise line, to ensure that the measures in the current advice and/or the local rules are met by both the cruise ship operator and the port authority. Inspectors should be provided access to the documentation required for inspection. The EU HEALTHY GATEWAYS joint action will support the inspections by providing: a) a checklist based on the current advice document; b) training of inspectors working at local authorities (through webinars); c) scheduling at an EU/EEA level to avoid duplication of inspections in the various ports of call; and d) the EU/EEA database to record inspection results and inspection follow-up in the EU Common Ship Sanitation Database (SHIPSAN Information System), secure area accessed only by the SHIPSAN inspectors. Results of the focused inspections will not be published. The inspections will be scheduled in cooperation by EU HEALTHY GATEWAYS joint action work package 7 with the companies and competent authorities at ports (preferably the

home port, and if needed, the contingency ports). Focused inspections will be announced to the companies at least four days in advance. It will not be necessary to conduct the inspection before starting cruise ship operations. This could be arranged at any date and at any port (the first days of sailing), in agreement with the company and the inspectors. Further details are described in the checklist for conducting focused inspections. If time allows, hygiene inspections according to the European Manual could be conducted; however, priority will be given to the focused inspection for COVID-19 and compliance with the current advice and/or any local/national rules and regulations. Inspections to ensure that the measures mentioned in the current advice and/or the local rules are met by both the cruise ship operator and the port authority will be carried out when a COVID-19 outbreak has been identified on board a cruise ship.

5. Measures to prevent COVID-19 infectious passengers from embarking the ship

5.1. Vaccination of passengers

Passengers should be advised to be vaccinated against COVID-19 at least two weeks prior to the voyage. This essentially means currently, that they should have received two doses of an authorised COVID-19 vaccine (one dose for single dose vaccine), or a 3rd dose or even a 4th dose depending on their underlying conditions and guidance in their country of origin. In this respect, passengers should seek the advice of family doctors or travel medicine practitioners. Travel companies and travel agencies should advise travellers to seek health information from a medical professional prior to their cruise and be vaccinated as per medical professionals' advice.

Cruise lines should request proof of vaccination status and assess validity upon boarding. Records of vaccination status should be maintained on board for passengers and crew and be available for review by the competent health authorities at the ports of call. Requirements under the General Data Protection Legislation (GDPR) must be followed for any personal data collected from individuals, in hard copy or electronically.

Any data kept by the ship operators should be handled in accordance with the relevant legislation for personal data protection.

5.2. Screening of incoming travellers to the country of embarkation

Passengers who have travelled from abroad to the country of embarkation must comply with the requirements for incoming travellers to the country of embarkation.

5.3. Exclusion policy

Cruise lines should develop an exclusion policy with regard to COVID-19 and inform the travelling public about the policy through their travel agents, travel companies, cruise line operators and other businesses operating in the tourism sector. Harmonisation of this policy in the cruise industry, or consistent wording would facilitate acceptance and understanding by the public. Any person experiencing symptoms compatible with COVID-19, or if identified anyone who is

unvaccinated and meets the definition of a "close contact", or anyone who tests positive for SARS-CoV-2 as part of the pre-travel testing and/or day of embarkation testing by RT-PCR[7] or a RADT, should not board the cruise ship. Passengers or crew members should hold a proof of negative test as described in the definition section, unless the tests have been performed on board and the medical staff on board maintain signed records of tests performed on board and is able to demonstrate the information that should be included in the proof of testing as described in the definition section.

5.4. Exclusion policy information

Cruise line operators and tour operators should provide all relevant information about the exclusion policy, as well as any pre-requisites and country specific rules on their websites and electronic reservation systems. Ideally, it should be obligatory to read the information in order to complete the reservation. These materials should be available in the national language, English and, where needed, other languages based on the most common language profiles of the passengers travelling on the respective cruise ship. Moreover, relevant information could be shared directly with passengers via email, text message, mail, website or other means of communication.

5.5. High risk groups

During the pandemic, special precautions may be applied to passengers and crew belonging to high risk groups. Individuals in high risk groups (people over 60 years of age or people of any age with underlying medical conditions (chronic diseases including cardiovascular disease, diabetes, hypertension, chronic respiratory diseases and immunocompromised individuals, severe overweight, e.g. BMI > 40)) should be advised to visit a doctor for pre-travel medical consultation to assess if they are fit to travel. Travellers in high risk groups should be strongly recommended to be vaccinated against COVID-19 before travelling (see paragraph 5.1). Unvaccinated crew members in high risk groups should work in positions where there is little or no interaction with other individuals and should be given priority/offered/ facilitated vaccination. In cruises with at least 95% of crew members and at least 95% of passengers vaccinated or recovered, crew members in high risk groups could work in any position. Moreover, advanced respiratory protection (e.g. filtering face-piece class 2 or 3 (FFP2/FFP3) respirators or equivalent that fit well[6]) could be prioritized for use by crew members belonging to high risk groups. Training in the use of PPE, including seal testing should be offered to the crew members (see paragraph 6.1 and Annex 1).

[6] **Respirator or filtering face piece (FFP):** designed to protect the wearer from exposure to airborne contaminants (e.g. infectious agents inhaled as large or small particle droplets) and is classified as personal protective equipment (PPE). Respirators are mainly used by healthcare workers to protect themselves, especially during aerosol-generating procedures. Respirators comply with requirements defined in European Standard EN 149:2001+A1:2009. Because the various respirators fit users differently, they need to be fitted individually in order to match each user. (European Centre for Disease Prevention and Control. Guidelines for the implementation of non-pharmaceutical interventions against COVID-19. Stockholm: ECDC; 2020) https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-guidelines-non-pharmaceutical-interventions-september-2020.pdf

6. Preparedness for responding to COVID-19 events on board cruise ships

6.1. Information, education and communication

Communication strategy and training plans

A communication strategy should be designed and implemented targeting the travelling public and the crew, defining the messages, the appropriate communication means and timing. The communication plan should cover processes related to ticketing, vaccination and testing requirements, protocols for pre-arrival, terminal, on board, as well as the procedures in case of a COVID-19 event.

Each cruise ship operator should design a training plan for their employees, with regular and on-going training. For example, a short webinar covering the topics listed in the following paragraph could be conducted.

Training content for crew

Cruise line operators should provide training and instructions to their crew regarding the recognition of the signs and symptoms compatible with COVID-19, as well as advantages of vaccination against COVID-19. Attention should be given to crew well-being.

Cruise line crew should be reminded of the procedures that should be followed when a passenger or a crew member displays signs and symptoms of COVID-19. Each member of the crew should be trained in their role and responsibilities to implement measures as per the contingency plan/outbreak management plan. COVID-19 knowledge should be regularly checked and reinforced using refresher training.

Crew should also be instructed that if they develop symptoms of COVID-19, they should not come to work. If symptoms develop while working, the crew member should immediately self-isolate, and inform their designated supervisor/manager and medical staff immediately. Symptoms should be reported for both themselves and other crew members or passengers, if noted.

The cruise ship operator should also reassure their crew that those who report symptoms and are unable to work will continue to be paid.

Cruise line operators should also provide training and instructions to crew regarding physical distancing measures, managing crowds, respiratory etiquette, use of face masks[7] (respirators, medical mask), strategies to improve face mask fit, ventilation in closed rooms, use of other PPE, importance of ventilation, as well as protocols for cleaning and disinfection (see Annex 1 for PPE donning and doffing techniques).

[7] **Medical face mask** (also known as surgical or procedure mask): a medical device covering the mouth, nose and chin to provide a barrier that limits the transmission of an infective agent between hospital staff and patients. The masks are used by healthcare workers to prevent large respiratory droplets and splashes from reaching the mouth and the nose of the wearer and to help reduce and/or control the spread of large respiratory droplets at source. Medical masks comply with requirements defined in European Standard EN 14683:2014.

Crew who visit or stay in local areas at the various destinations should be informed in a timely manner about any national or local preventive measures or laws established by local or national public health authorities regarding COVID-19.

Medical staff on board should be trained in appropriate sample collection as well as storage and transport of the samples.

Information and communication to passengers

Cruise lines, travel companies and travel agencies should provide relevant pre-travel information about mitigating the risk of COVID-19 infection to their passengers as a part of their travel information. In this context, information regarding the symptoms of COVID-19, the associated health risks especially for vulnerable groups, and the importance of preventive measures should be provided together with bookings. To support on board preventive measures, cruise lines may share details of recommended personal hygiene items to carry during their travel from home and during their time on board the ship (e.g. alcohol-based hand rub solution, sufficient supply of face masks for the duration of the trip etc.).

Companies and travel agencies should inform travellers that they may be refused boarding if they have symptoms which are compatible with COVID-19, have had a positive RT-PCR test or other type of test result for SARS-CoV-2, or have been exposed to a COVID-19 confirmed case, as per the company's exclusion policy. The ticketing process should include information regarding the latest health and safety considerations, including those posed by COVID-19. During the ticketing process passengers should be informed about eligibility requirements.

Content of information and communication messages to crew and passengers

Before travelling, and, if applicable, regularly during the voyage, information should be provided to passengers and crew members (e.g. through electronic posters, recorded messages etc.). The information should include:

- boarding screening measures where applied;
- any requirements for COVID-19 vaccination and/or testing prior to travel/embarkation;
- if passengers or crew have been vaccinated, they should carry with them the SARS-CoV-2 vaccination certificate, and present it to the ship officers and/or health authorities (if asked as part of the risk assessment of a COVID-19 event);
- symptoms compatible with COVID-19, including sudden onset of at least one of the following: newly developed cough, fever, shortness of breath, sudden loss of taste/smell;
- likelihood of being denied boarding if they have developed symptoms of COVID-19 or have tested positive during the pre-embarkation/ day of embarkation testing, or have been in contact during the last 14 days with a COVID-19 patient;
- advice on the risk of travelling for all individuals with chronic diseases and immunocompromised individuals;
- recommendation for passengers over 60 years of age to consult with their medical care provider to obtain advice on their fitness to travel;
- hygiene measures: hand washing with soap and water or hand hygiene with alcohol-based hand rub solution (containing at least 60% ethanol or 70% isopropanol), respiratory

(coughing and sneezing) etiquette, disposal of used tissues, physical distancing (including the elimination of handshaking, hugging, high fives, etc.), use of face masks, avoiding touching the nose, eyes and mouth without previously washing hands etc.;
- actions to take in case COVID-19 compatible symptoms develop;
- rules and health measures implemented on board cruise ships at the destination (e.g. physical distancing, when or where use of face masks is required, disembarkation) (15);
- the need to immediately report to cruise ship crew if passengers develop respiratory symptoms during travel, including means of reporting to crew and seeking a NAAT or RADT (e.g. providing dedicated number or location to contact), crew will then inform the designated officer for contingency plan/outbreak management plan implementation;
- after disembarkation the need to self-isolate and seek immediate medical care (including how to seek medical care) if developing any of the following: fever, cough, difficulty breathing, sudden loss of taste/smell, and to share previous travel history with the health care provider.

6.2. Contingency planning on board

Operators of cruise ships should have in place written contingency plan/outbreak management plans for the prevention and control of COVID-19 transmission on board the ship. For the implementation and execution of the written plan, one dedicated position/named individual/coordinator and a substitute (e.g. a ship officer with alternate) or an outbreak management committee should be appointed, who will be designated in the written plan. It is good practice to have a dedicated Public Health Officer or medical person who will coordinate the execution of the company's infection prevention and control program. The contingency plan/outbreak management plan should include the following as applicable:

A. Preventive measures

- Physical distancing
- Personal hygiene rules
- PPE use
- Self-monitoring of symptoms for cruise ship crew
- Procedures for responding to a possible case (temporary isolation, arrangements for medical examination and laboratory testing)
- Standard Operating Procedures (SOP) for cleaning and disinfection covering all types of surfaces and materials, defining the disinfectants and the methods to be used
- SOP for laundry of linen and clothing
- SOP for cleaning and disinfection of body fluid spills in the environment
- Food safety management (e.g. dining and food service arrangements)
- Potable water safety management
- Recreational water safety management
- Ventilation of indoor areas
- Communication plan including reporting public health events to the competent authorities

- Data management of health and screening documents (e.g. Passenger/Crew Locator Forms, Maritime Declaration of Health)

B. Measures for response and management of a possible/confirmed case COVID-19

- Interviewing of cases.
- Isolation/quarantine plan of the possible case and their close contacts.
- Collaboration with the national competent authorities for contact tracing, quarantine of contacts and isolation of cases.
- Response measure to symptomatic case or cases and to asymptomatic case or cases and to their contacts (vaccinated or unvaccinated) among passengers and crew.
- Thresholds for initiating screening testing of the entire crew of the department, and for the entire crew on board the ship. Advice for such thresholds are given in paragraph 7.3.
- Referral (if required) to hospitals or isolation/quarantine facilities ashore.
- Cleaning and disinfection procedures of contaminated spaces, objects and equipment (daily and final cleaning and disinfection).
- Communication strategy for informing the contacts of a confirmed COVID-19 case among the passengers/crew, retrospectively including psychosocial support.

6.3. Supplies and equipment

Adequate and sufficient medical supplies and equipment should be available on board cruise ships to respond to a case or an outbreak. Adequate supplies of disinfectants, hand hygiene supplies, tissues, medical masks and FFP2 masks or equivalent, and no-touch bins for waste disposal should be carried on board cruise ships and also made available at the embarkation and disembarkation facilities.

An adequate supply of diagnostic tests (RT-PCR diagnostic panel test kits, RADTs (please see WHO recommendations: Antigen-detection in the diagnosis of SARS-CoV-2 infection using rapid immunoassays (who.int) and EU health preparedness: A common list of COVID-19 rapid antigen tests: https://ec.europa.eu/health/system/files/2022-05/covid-19_rat_common-list_en.pdf and equipment for collecting specimens to be tested at ashore facilities or on board should be available.

Supplies of PPE should be carried on board including: medical face masks and respirators (e.g. FFP2 or FFP3, or equivalent standard), eye protection (goggles or face shields), gloves, and long-sleeved impermeable gowns (aprons could also be included). It is recommended that face masks do not have exhalation valves since they may allow the release of exhaled droplets from the wearer, and thus cannot be used for source control.

Further details about PPE and supplies specific to COVID-19 can be found at: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance (please see: a) *COVID-19 operational support and logistics disease commodity packages* and b) *Technical specifications of personal protective equipment for COVID-19*).

Adequate supplies of PPE for use by passengers and crew should also be available (please see Annex 1).

Further recommendations for the type of PPE required according to the job position and the setting can be found here: https://www.healthygateways.eu/Novel-coronavirus

Additional medical staff should be considered to be available on board if required (e.g. based on passenger load/demographics etc.) in order to support surveillance, contact tracing, testing and case management. Medical facilities and shipboard accommodation spaces should be enhanced to provide sufficient on board critical care capacity for COVID-19 cases and separation of infectious and non-infectious patients.

7. Vaccination and testing of crew members and passengers

7.1. Vaccination of crew members

It is strongly recommended that all seafarers be vaccinated against COVID-19. Seafarers, as transportation workers, are recommended to be considered as a priority group by EU/EEA MS for vaccination against COVID-19 in accordance with the European Commission Communication (16). Vaccination of crew for ships sailing in EU/EEA MS should be legally acquired from official sources.

All vaccinated or recovered crew members should hold valid proof of vaccination or proof of recovery as described in the definition section.

Cruise lines should request the proof of vaccination upon boarding. The cruise line should verify the validity of vaccination provided by checking the information included in the definition section or, in case of a DCC, by checking the QR code (an app can be downloaded and used for this purpose).

Records of crew members vaccination status, including vaccine names and administration dates, should be maintained to help in decision making regarding public health measures during case and close contact tracing and to assist outbreak responses. Any data kept by the ship operators should be handled in accordance with the relevant legislation for personal data protection.

7.2. Testing of crew members before resuming operations and incoming crew members

Within one week before resuming operations in EU/EEA MS, cruise lines should perform a NAAT or RADT for SARS-CoV-2 on all crew members (vaccinated and unvaccinated) that are already on board the cruise ships. If positive results are found, then the contingency plan/outbreak management plan for management of cases available on board should be activated and implemented. Detailed advice for response measures are provided in the EU HEALTHY GATEWAYS advice “Advice for cruise ship operators for preparedness and response to an outbreak of COVID-19” available here: https://www.healthygateways.eu/Novel-coronavirus.

Incoming crew members (new employments or crew returning to the ship from home leave) should have been tested for SARS-CoV-2 with NAAT or RADT, within 72 hours before arrival on the cruise ship. Only those with negative test results should be allowed on board the cruise ship, provided that the additional diagnostic test (NAAT or RADT) conducted the day of embarkation is also negative.

All crew should undergo a NAAT or RADT the day of embarkation (new employments or crew returning to the ship from home leave).

Unvaccinated incoming crew members should be quarantined on board or ashore for 5 days and then be tested by NAAT or RADT on day 5, followed by a 5-day period of "working quarantine" wearing a high-efficiency mask[8].

Vaccinated or recovered incoming crew members should wear a high-efficiency mask for 10 days, be tested by NAAT or RADT on day 5, and self-monitor for symptoms, keep distance from others and avoid contact with vulnerable populations for 10 days.

For small vessels with less than 100 guests, if this is not feasible, then quarantine of crew members can take place before starting work duties ashore at the country of embarkation with a direct transfer to the ship (green lane). After their quarantine ends and if the test results are negative, they can start their regular work schedule on board the cruise ship. The same testing and quarantine procedure should apply to crew members who are transferred from other vessels. Quarantine is not required for direct vessel-to-vessel transfers using only private transport with no overnight stays. Contractors that will work on board the ship for short time periods (less than one week) should be placed in "working quarantine"[8].

[8] Ship owners, crew managers and other ship operators (or their representatives) should inform crew members that when undergoing "working quarantine", they should follow measures:

- Avoiding non-essential contact with others and use of shared areas on board the ship (meal areas, laundry rooms etc.).
- Limiting interaction with other crew members during work activities (assign to positions where work alone) or ensure strict measures (physical distancing of 1.5 metres and use of face mask when working with others).
- Avoid any interaction with passengers.
- Wearing a face mask at all times (except when eating and drinking) when outside of individual cabin.
- Practicing frequent/thorough hand hygiene and respiratory etiquette.
- Remaining in individual cabins when not working.
- Eating meals in their cabin or a designated dining location with physical distancing.
- Not entering areas that are not essential for their work purposes.
- Transiting the vessel through outer walkways when possible.

7.3. Routine testing of crew members

7.3.1. Testing on board cruise ships <95% vaccinated or recovered crew members and passengers

Once on board operational cruise ships, unvaccinated and vaccinated crew members should be tested NAAT or RADTs once every week.

7.3.2. Testing on board cruise ships ≥95% vaccinated or recovered crew members and passengers

Crew members should be tested by NAAT or RADTs once every 2 weeks. The testing of crew members could be split, so that half of the crew members of each department are tested each week.

Routine testing of crew members should be considered as an additional layer of measures applied, and should not create a false sense of security. Other control measures should be implemented in addition to diagnostic testing (e.g. hand hygiene, physical distancing, PPE use, adequate ventilation, cleaning and disinfection etc.).

Acceptable procedures and considerations for supervised self-collection of nasal swab samples can be found in Annex 2.

In the event that increasing cases of COVID-19 are identified among the crew members (excluding incoming crew members that are in embarkation quarantine), the contingency plan/outbreak management plan for management of cases available on board should be activated and implemented, as described in the EU HEALTHY GATEWAYS document "Advice for cruise ship operators for preparedness and response to an outbreak of COVID-19" available here: https://www.healthygateways.eu/Novel-coronavirus. Crew members and passengers of the cruise ship should be tested by NAAT or RADTs as soon as possible, in accordance with the risk assessment conducted as part of the contact tracing process.

7.3.3. Increased frequency of testing of crew members in response to clusters or outbreaks

Testing by RADT or by NAAT should be performed **on all crew members working in the same department** when COVID-19 cases have been identified among crew members of the same department who are staying **in three or more cabins** within a timeframe of seven days.

Testing by RADT or by NAAT should be performed **on all crew members on board** when:

a) a cluster(s) (COVID-19 cases have been identified within one week among crew members of the same department who are staying in three or more cabins) has/have been identified **in three or more departments**,

OR

b) when the cumulative number of COVID-19 cases in seven days has reached the **level of ≥2% of passengers or ≥4% of crew.**

In both situations (a) or (b), all crew members should be tested by RADT or NAAT every 7 days for the following two weeks. The testing could be split, so that half of the crew members of each department are tested every 3-4 days.

7.4. Testing of passengers on the day of embarkation

All passengers (except children under the age of 12 years) should hold proof of a negative:

- NAAT performed within 72 hours before embarkation, OR
- RADT performed within 48 hours before embarkation

7.5. Routine testing of passengers

Routine testing of passengers is applicable only to cruise ships sailing with less than 95% of the crew members and/or less than 95% of the passengers on board vaccinated or recovered.

For cruises which last up to 7 nights, RADT or NAAT tests should be conducted the third or fourth day of the voyage on all passengers 12 years of age and over who do not have proof of vaccination or recovery from COVID-19. For cruises which last for more than 7 nights, RADT or NAAT test should be conducted on all passengers 12 years of age and over who do not have proof of vaccination or recovery, every 4 days starting from the third or fourth day of the cruise. Transit passengers 12 years of age and over who do not have proof of vaccination or recovery on cruises which last up to 7 nights (i.e. passengers who will stay on board for another cruise) should be tested by RADT or NAAT every 4 days starting from the third or fourth day of the first cruise. An additional RADT or NAAT test may be performed on passengers before disembarkation if the country of disembarkation requires it.

8. Options for measures to prevent COVID-19 infectious travellers (passengers and crew) from boarding cruise ships

8.1. Screening at embarkation

Pre-boarding screening aims at assessing the presence of symptoms and/or the exposure to COVID-19 cases of arriving travellers. Travellers identified as exposed to or potentially infected with SARS-CoV-2 should be tested and quarantined or isolated, respectively in accordance with the local rules and regulations.

Pre-boarding screening should identify symptomatic travellers and those who truthfully declare their past exposure. Screening measures may not identify mild symptoms, asymptomatic, incubating travellers or those concealing symptoms (e.g. by using antipyretics)

(17-19). Those travellers may not be detected and therefore may still be able to board the ship. Temperature screening alone will not effectively prevent the introduction of COVID-19 cases on board (20).

Pre-boarding screening measures are generally conducted as a two-step process: primary screening and secondary screening (21, 22). Primary screening normally includes an initial assessment by personnel, who may not be public health personnel or medically trained. This could be supported by completion of a health screening questionnaire and Passenger Locator Form before travel, asking about the presence of relevant symptoms and/or exposure to any COVID-19 cases. An example pre-boarding health declaration questionnaire is included in Annex 3.

Where feasible, the use of electronic questionnaires is preferable to hard copy questionnaires, in order to help minimise crew contact. Requirements under the General Data Protection Legislation (GDPR) must be followed for any personal data collected from individuals, in hard copy or electronically.

Travellers who have COVID-19 compatible signs or symptoms, or have been potentially exposed to SARS-CoV-2, should be referred to secondary screening. Secondary screening should be carried out by personnel with public health or medical training. It includes an in-depth interview, a focused medical exam and testing by NAAT or RADT for SARS-CoV-2. COVID-19 cases should not be allowed to embark, and a decision about allowing embarkation should be taken after considering the laboratory results, the symptoms and exposure. A standard policy should be implemented for denial of boarding to any exposed or symptomatic possible case among passengers and crew. Standard Operating Procedures (SOPs) should be in place for case management at the terminal facilities and ashore facilities (transportation, accommodation, health monitoring, precautions, duration of isolation, criteria for release from isolation and allowing repatriation) if possible cases will be confirmed by diagnostic testing in accordance with local rules and regulations.

9. Measures for preventing and limiting transmission of COVID-19 on board cruise ships

9.1. Reporting of symptoms

It is of high importance that crew members should immediately report to supervisors any mild or severe symptoms compatible with COVID-19. Any crew with COVID-19 compatible symptoms should immediately self-isolate, be provided with appropriate PPE (e.g. medical face mask) and inform their designated supervisor/manager and medical staff.

It is of high importance that passengers should be advised to immediately report any mild or severe symptoms compatible with COVID-19.

9.2. Limiting interaction

In order to limit interaction among passengers, among crew, and between crew and passengers, only when possible passengers and crew could divide into cohorts with appropriate numbers of people. Each group could be given scheduled times for food service, embarking and disembarking, and participating in some on board activities. If not possible to maintain separate cohorts/groups on board, cohorts/groups could be maintained for shore-based activities. Interaction between each cohort should be avoided as much as possible. This will help in the management of any potential COVID-19 case and their contacts, and should help to limit the number of exposed persons, as well as tracing possible close contacts.

This is particularly important for crew members where physical distancing and interaction cannot be avoided in the work place.

All crew designated to work with identified possible/confirmed COVID-19 cases should ideally have cabins in similar locations and dine together as a group, which minimises their traversal of the ship through common areas.

9.3. Physical distancing

Physical distancing of at least 1.5 metres (or otherwise as per national/local health authority rules of the home port or the port of call) is recommended to be maintained at waiting areas and during boarding at transport stations, by adopting special markings and controlled entry measures. One-directional flow of passengers could be implemented if possible.

Operating procedures could be implemented to control the flow of passengers. Moreover, to decrease crowding and support physical distancing, outdoor spaces could be utilized for group events and procedures like muster drills could be staggered.

If appropriate physical distancing cannot be guaranteed, the use of protective transparent (e.g. glass or plastic) panels should be considered at places such as reception areas, at bars and restaurants.

Each port terminal could conduct an initial assessment and identify the areas where passengers and crew queue in order to implement measures ensuring physical distancing, including signage, audio announcements, floor markings, directional arrows for traveller flows and management by crew. This could include outdoor sunshades where travellers gather during the summer months to await boarding. During embarkation/disembarkation, several gangways could be used if possible to avoid crowding of passengers.

9.4. Personal hygiene measures

Good hand hygiene should be maintained, with frequent and thorough hand washing conducted by passengers and crew using soap and water. If hands are not visibly soiled, then alcohol-based hand rub solutions may be used (these should contain at least 60% ethanol or 70% isopropanol) and preferably be touchless stations. It should be noted that the use of

gloves does not replace hand hygiene and that glove use in the community is not recommended to prevent transmission of SARS-CoV-2.

Stations with alcohol-based hand rub solutions (containing at least 60% ethanol or 70% isopropanol) should be available at all entrances/gangways to the ship and in other areas such as crew/work areas, elevators, check-in areas, entertainment venues, casinos, bars and restaurants.

Cruise ship operators should provide information to passengers and cruise ship crew on hand hygiene related issues, and where necessary the appropriate facilities and equipment:

- Hand washing techniques (use of soap and water, rubbing hands for at least 20 seconds etc.)
- When hand washing is essential (frequent and meticulous hand washing must be performed and can be done for example before boarding and after disembarkation, after assisting an ill traveller or after contact with environmental surfaces they may have contaminated, prior to eating/drinking, after using restrooms, before wearing and after removing face masks and other PPE etc.)
- When hand rubbing with an alcohol-based solution can be used, instead of hand washing and how this can be performed
- Respiratory etiquette during coughing and sneezing with disposable tissues or clothing
- Avoid touching with hands the eyes, nose or mouth
- Appropriate waste disposal
- Proper use and storage or disposal of face masks (medical masks or respirators)
- Avoiding close contact with people suffering from acute respiratory infections

9.5. Respiratory etiquette

Respiratory etiquette should be advised in all areas: the nose and mouth should be covered with disposable paper tissues when sneezing or coughing and then the tissue should be disposed of immediately in a no touch bin, followed by meticulous hand hygiene using water and soap or an alcohol-based hand rub solution. It is important to have relevant supplies available in different areas around the cruise ship (e.g. tissues or paper towels and disposable gloves, no touch bins etc.). If disposable paper tissues are not available, coughing or sneezing into the elbow is recommended.

Information about respiratory etiquette should be provided to passengers via recorded communications, leaflets, infographics, electronic posters etc.

9.6. Preventing droplet transmission by the use of face masks

Cruise ships are semi-closed environments with common areas that may allow extended periods of close contact between people. As described in Annex 1, it is recommended that

crew members and passengers use medical face masks (and that strategies to improve fit[9] are considered). Respirators (e.g. FFP2 standard or equivalent) could also be considered for crew members and passengers.

Further details about strategies that can be used by crew members to improve face mask fit can be found here: https://www.ecdc.europa.eu/en/publications-data/using-face-masks-community-reducing-covid-19-transmission

Face masks should be used by all crew members at all times in all indoor areas on board when exiting/outside of individual cabins (exceptions include during eating and drinking, seated on sunbeds, swimming or doing other activities where the mask would get wet, in which case physical distancing should still be practiced). This should also apply to crew members who are off duty and outside of cabins, as well as shore-based personnel (e.g. maritime pilots, port workers, medical personnel etc.) boarding the ship. Face masks should be worn by all crew members outdoors if physical distancing cannot be maintained.

It is recommended that face masks are used by passengers at all times in all indoor areas on board when exiting/outside of their cabins. The use of face masks by passengers is strongly recommended in crowded indoor spaces (e.g. in entertainment venues) and during embarkation, disembarkation and any other situation where physical distance cannot be maintained. Face masks are recommended to be worn outdoors if physical distancing cannot be maintained.

All passengers should wear face masks when exiting/outside of their cabins, for the following two weeks after any of the following situations:

- when the cumulative number of COVID-19 cases in seven days has reached the level of ≥2% of passengers or ≥4% of crew, OR
- when the attack rate among passengers is ≥ 1% in any 48-hour period per voyage

When crew members and passengers are ashore they should follow the rules of each country.

If the passenger does not arrive with their own face mask, face masks should be made available for passengers at the terminal. Additional face masks should be available and provided upon request on board the ship.

Passengers should be informed about the health risks of not wearing a face mask and about the correct use of face masks via health advisories, audio messages, leaflets, TV, infographics, websites or electronic posters etc. and at the terminal stations. Cruise lines should continue to encourage passengers, as part of their pre-travel communications as well as during the voyage, to wear a face mask as a way to protect themselves and others and that they should respect others' decision to wear or to not wear a mask. In their communication, operators

[9]Strategies to improve the fit of medical face masks include: using masks with nose wires, using mask fitters/braces, using a knotting/tucking technique, or double masking: refers to wearing two face masks simultaneously. (Centers for Disease Control and Prevention. Types of Masks and Respirators. 28 January 2022. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html)

should highlight that people at high risk for severe COVID-19 are advised to wear an FFP2 respirator during the voyage for their own protection.

9.7. Adequate ventilation

The following recommendations are based on the ECDC guidance: "Heating, ventilation and air-conditioning systems in the context of COVID-19: first update" (available here: https://www.ecdc.europa.eu/en/publications-data/heating-ventilation-air-conditioning-systems-covid-19) and on the fourth version of the REHVA guidance: "How to operate and use building services in order to prevent the spread of the coronavirus disease (COVID-19) virus (SARS-CoV-2) in workplaces".

The minimum required air changes per hour for each space on the ship should be respected, and if possible, the air changes per hour should be further increased in order to reduce the risk of transmission. When possible, direct air flow should be diverted from groups of individuals (especially if they are stationary). Exhaust fans of bathrooms should be functional and operate continuously.

If technically possible, the use of air recirculation should be avoided as much as possible by closing the recirculation dampers (via the Building Management System or manually) of all the air handling units (AHUs). This decision should be taken after consultation of the manufacturer and considering the cooling and heating capacity of the system. In case it is not possible to completely stop the recirculation of the air, the ship should explore improving air filtration of the return air as much as possible such as using ePM1 80% or HEPA filters or Ultraviolet Germicidal Irradiation (UVGI).

It is not recommended to change heating, cooling and humidification set points of the HVAC system.

All maintenance works related to the HVAC system, including changing the central outdoor air and extract air filters should be conducted according to the usual maintenance schedule. Duct cleaning should be avoided during the COVID-19 pandemic. Regular filter replacement and maintenance work shall be performed with common protective measures including adequate PPE.

If technically possible and on large ships (ships with more than 100 quests), the medical facilities as well as the designated isolation spaces, should be connected to separate AHU's. The return air from the medical facilities and the isolation spaces should either be HEPA-filtered or exhausted to the outside. If aerosol-generating procedures are performed in the medical facilities of the ship, then the area should be under negative pressure and achieve at least 10 air changes per hour.

9.8. Cleaning and disinfection

Enhanced cleaning and disinfection should be implemented in accordance with the EU HEALTHY GATEWAYS guidance on "Suggested procedures for cleaning and disinfection of ships during the COVID-19 pandemic (Version 2 – 20/04/2020)" and with an increased

frequency in shared public areas/facilities (dining areas, entertainment venues etc.) and for surfaces that are frequently touched by crew and passengers (e.g. handrails, elevator buttons). Other items that are frequently touched in common areas could be removed and information provided in alternative ways, including through announcements, additional signage or directly to mobile devices. Special protocols for cleaning and disinfection should be implemented after a possible or confirmed COVID-19 case has been identified on board. There should be adequate PPE for the cleaning crew available on board (e.g. medical face masks, gloves, gowns, eye protection).

Staff should be trained in implementing cleaning and disinfection protocols. Adequate supplies and cleaning and disinfection materials should be available.

EU HEALTHY GATEWAYS guidance produced on suggested procedures for cleaning and disinfection of ships during the pandemic of COVID-19 (VERSION 2 - 20/04/2020) can be found here: https://www.healthygateways.eu/Portals/0/plcdocs/EU_HEALTHY_GATEWAYS_COVID-19_Cleaning_Disinfection_ships_21_4_2020_F.pdf

This document includes advice about specifications for the training of cleaning crew and use of PPE, information about the cleaning equipment and materials to be used, and a summary of antimicrobial agents effective against coronaviruses. It further outlines suggested procedures for cleaning and disinfection for different materials and areas of the ships including health care and general settings.

9.9. Special considerations for cabins

Between cruises, all cabins should be thoroughly cleaned and adequately ventilated (it is recommended that this is for at least one hour after cleaning and disinfection, and before the next passengers enter).

All types of surfaces and materials which may be touched, including textile surfaces (e.g. sofas, cushions, rugs, furniture, wallpaper) should be cleaned between occupancies.

When the ventilation system supplying the cabins does not provide 100% outside air or does not have improved air filtration as described in section 9.7, it is recommended that the doors and windows (if applicable) are opened daily in order to enhance ventilation.

Specific advice for cleaning and disinfection of affected cabins is given in the EU HEALTHY GATEWAYS guidance on suggested procedures for cleaning and disinfection of ships during the pandemic of COVID-19 (VERSION 2 - 20/04/2020), available here: https://www.healthygateways.eu/Portals/0/plcdocs/EU_HEALTHY_GATEWAYS_COVID-19_Cleaning_Disinfection_ships_21_4_2020_F.pdf

9.10. Food safety rules

Food hygiene rules must be strictly followed as described in the "European Manual for Hygiene Standards and Communicable Disease Surveillance on passenger ships" available here: http://www.shipsan.eu/Home/EuropeanManual.aspx. The additional special provisions

for preventing COVID-19 in food service areas and food operations should be described in a written plan, and crew should be trained on the procedures based on their specific duties.

The food safety rules described in this paragraph should apply also to the crew galley and the crew mess.

Cutlery, plates, trays, napkins, soft drinks, straws etc. should be handed by crew to the passengers; the passengers should not collect these items themselves.

It is recommended to maintain physical distance by travellers at all food service areas, including à la carte restaurants, specialty restaurants, service areas/breakfast areas, indoor and outdoor bars etc. It is also recommended that only persons staying in the same cabin and/or persons from the same household or same travelling unit dine at the same table. It is recommended to maintain a distance of 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) between chairs of different travel groups.

It is recommended to keep physical distances of 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) whenever possible among crew working in the galley or other food areas.

Any person entering/working in the galley should wash their hands and wear a face mask (see Annex 1). Only food handlers should be allowed to enter the galley. In case visitors (e.g. maintenance staff) must enter the galley, they should perform hand hygiene and be provided with the appropriate PPE and other equipment (medical face mask, hair covering, apron etc.), which will be available at the entrance of the galley.

Passengers should wash or disinfect their hands (with an alcohol-based hand rub solution) upon entering and exiting the food service areas. Crew members could be present to monitor passenger compliance, especially during peak service times.

Towels including self-set towels, tablecloths and utensils should be washed after each service, even if they have not been used. Restaurant linen should always be changed between passengers.

It is strongly recommended that physical distances are maintained and the serving utensils are replaced frequently in self-service food operations (such as buffet service).

Complimentary beverage stations may be open for self-service provided that the hand contact parts are frequently disinfected.

Individual dining options, including room service, are recommended to provide food to passengers' cabins, in order to avoid overcrowding in restaurants and other food service areas. Room service crew should maintain appropriate physical distancing and use PPE. All normal food hygiene standards and precautions should be followed during the transport of food on board. Particular care should be taken with the safe collection and ware washing of room service items and utensils that have been used by passengers.

Crew providing individual dining options, including room service, should endeavour to maintain physical distance and use PPE. It is preferable that crew do not enter the cabin, but rather deliver food outside the door. Likewise, used plates and utensils should be collected by crew from outside the door.

9.11. Reducing face-to-face interactions

On-line bookings, orders and purchases should be encouraged, as well as the use of contactless cards for payments. Forms that need to be completed may be made available on-line for electronic completion.

9.12. Special considerations at reception

Reception staff should be able to provide passengers with details about the on board communicable disease controls and policies, as well as measures that have been taken to address possible cases of COVID-19 on board. Furthermore, reception staff should inform passengers how to get medical advice on board, and may also be able to provide PPE when requested.

It is recommended that written information, videos or electronic posters are made available to provide basic health instructions translated into English, and other languages based on the most common language(s) spoken by passengers and crew members on board. In addition, where feasible, health advice may be provided through a mobile phone application.

Special equipment should be available (e.g. alcohol-based hand rub solutions, face masks, and disposable gloves) in the event that a possible case is identified, or if a passenger seeks help at reception.

Reception staff should be able to recognize the signs and symptoms of COVID-19 and report any issues directly to medical staff.

Alcohol-based hand rub solutions should be available for use by passengers at the reception desk. Crew should monitor and encourage compliance with good hand hygiene in this area as well as proper use of face masks.

Regular cleaning and disinfection of reception desks/counters is recommended.

It is recommended that appropriate physical distancing is maintained at the reception desk, and that special attention is given to avoid overcrowding during check-in, check-out and maintenance of physical distances at all times.

It is recommended to use electronic alternatives for check-in and check-out (e.g. mobile concierge or use of electronic devices that can be disinfected after each use). The possibility of using an outdoor based check-in may also be considered. It is recommended that passenger expenses are paid electronically where possible (cash should be accepted only in exceptional cases) and that bills, invoices and receipts are sent electronically, as well.

9.13. Nurseries and play areas for children

It is preferable to operate outdoor children's play areas only, or to promote their use over indoor play areas. If this is not possible, it is recommended that the number of children using the indoor areas should be reduced to minimise crowding. The areas should be cleaned and disinfected according to the protocol on board and as required in the "European Manual for Hygiene Standards and Communicable Disease Surveillance on Passenger Ships" available here: http://www.shipsan.eu/Home/EuropeanManual.aspx

The number of children in the outdoor children's play areas/playgrounds may also be limited at one time. Child centre staff should monitor children for any signs or symptoms compatible with COVID-19, and the child exclusion policy should include possible COVID-19 cases. It is recommended that children's activities are limited to those where physical distancing measures can be adhered to.

9.14. Entertainment venues

It is recommended to prevent overcrowding in these areas (e.g. theatres) to maintain appropriate physical distancing; the frequency of entertainment events may be increased to reduce numbers. It is recommended that the maximum allowable capacity of venues is defined so that physical distancing of at least 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) is maintained.

Alcohol-based hand rub solutions should be made available to passengers at the entrance of entertainment venues, with crew members monitoring compliance of hand hygiene. Additional alcohol-based hand rub solution equipment (e.g. dispensers) may also be provided in entertainment venues.

It is strongly recommended that medical face masks or respirators are used in entertainment venues. Strategies to improve the mask fit could be considered as described in paragraph 9.6.

It is recommended that entertainment venues are cleaned and disinfected after each use. Ventilation in these areas should be meticulously maintained and the space should be ventilated well after each use.

Physical distancing of least 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) is strongly recommended to be applied in all casino areas. It is strongly recommended that medical face masks or respirators are worn. Strategies to improve the medical mask or respirators fit could be considered as described in paragraph 9.6. Ventilation in these areas should be meticulously maintained and the space should be ventilated well after each use.

Casino layouts are recommended to be reviewed so that physical distancing of least 1.5 metres (or otherwise as per national/local health authority requirements of the home port) is respected. At gaming tables, the number of players per table is also recommended to be estimated and defined to help ensure physical distancing measures are maintained. It is

recommended that seats may be removed or taken out of use from slot and electronic gaming machines, and from gaming tables where they are closer together than 1.5 metres.

It is recommended that slot/electronic gaming machines and gaming tables are positioned so as to maintain the physical distancing measures between passengers. Physical distancing at slot/electronic gaming machines and at gaming tables may be achieved by relocating the machines or tables, removing chairs, disabling some gaming machines to create appropriate distances between them, and by adding protective screens.

It is recommended that food service is suspended in the casino area.

Alcohol-based hand rub solutions should be placed at the casino entrances and passengers should be advised to use them when entering and exiting the area as well as throughout the casino area.

Cleaning and disinfection should follow routine procedures, but with an increased frequency in the casino area.

Slot and electronic gaming machines should be cleaned and disinfected between uses. This should be done by staff where possible or passengers may be provided with disinfectant wipes. Additionally, passengers may be provided with disinfectant wipes or solutions to wipe frequently touched hand contact surfaces.

9.15. Hairdressers and beauty salons

This paragraph applies to the following services and facilities: massage services, beauty salons, hairdressers, saunas, Hammams and spas. Hygiene rules on those facilities must be strictly followed as described in the "European Manual for Hygiene Standards and Communicable Disease Surveillance on passenger ships" available here http://www.shipsan.eu/Home/EuropeanManual.aspx.

All public spaces (e.g. reception spa, hairdresser, near public toilets) should have hand rub alcohol-based solution for the passengers.

Crew and passengers should wear face masks as described in Annex 1.

Crew should advise passengers to immediately stop using shared facilities if they start to feel unwell and report this to staff working in these areas.

9.16. Gyms

- It is recommended that physical distancing is maintained between users whenever possible:
  - ≥1.5 metres apart, or
  - a greater distance where required by health authorities.
- Showers, lockers and changing rooms should be used allowing 5 m^2 per person.

- Equipment is recommended to be placed at least 1.5 metres apart, with a greater distancing for treadmills and other high-exertion aerobic fitness equipment where feasible.
  - Equipment could be arranged in an "X" pattern to help provide greater distancing.
  - Equipment that cannot be moved could be marked/blocked off to ensure that persons can maintain at least a distance of 1.5 metres from other users. Tape or other markings may be used to assist users to maintain physical distancing.
- Gym users should be encouraged to perform high-intensity exercise outdoors whenever possible.
- Gym users should be asked to disinfect touch surfaces on equipment before and after each use.
  - Disinfectant wipes should be provided adjacent to equipment.
  - Enhanced cleaning and disinfection protocols should be implemented in the gym, with a focus on frequently touched surfaces.
- Supervisory staff should manage cleaning and disinfection of frequently touched surfaces, and the use of hand sanitizers or hand washing where required.
- The gym should be monitored for compliance with these precautions.

Additional requirements from local health authorities may supersede these procedures.

9.17. Potable water

In case the potable water system of the cruise ship has not been operated as per the standards of the "European Manual for Hygiene Standards and Communicable Disease Surveillance on passenger ships" (available here: http://www.shipsan.eu/Home/EuropeanManual.aspx), or the cruise ship was in dry dock for more than a month, the steps described in "ESGLI Guidance for managing Legionella in building water systems during the COVID-19 pandemic" should be followed.

9.18. Sewage and grey water

The ship should have standard well-maintained plumbing, such as sealed bathroom drains, and backflow valves on sprayers and faucets to prevent aerosolized faecal matter from entering the plumbing or ventilation system.

Deck drains sanitary devices connected to the black water should always operate correctly. In case the sanitary devices connected to them are not operated for long periods, water should be added to them in order for the water seal to work correctly. Water should be added regularly and dependent on the climate (e.g. every three weeks).

9.19. Recreational water facilities

It is recommended that face masks or respirators are worn at indoor recreational water facilities. However, it is important to note that face masks do not need to be worn when seated on sunbeds, when swimming or doing other activities where the mask would get wet.

In these situations, it is recommended that physical distancing is maintained.

It is recommended that the facility provides towels or other washable coverings that can cover the entire surface of the seat and that the seats are disinfected after each use. It is recommended that the textile surfaces of the sunbeds are removed.

It is recommended that bathers are managed by scheduling bathing times, or if possible by providing or separating swimming facilities and services into different groups.

It is recommended that the maximum allowable number of bathers at any time in the swimming pools is one bather per 4 m^2 of water surface, regardless of the depth of the pool. It is recommended that small hot tubs (with a depth of less than 1 m and tub volume less than 6 m^3) are used only by bathers of the same household, or by bathers staying in the same cabin at a time. It is recommended that the total number of co-bathers in larger spa/hydrotherapy pools (with a depth of more than 1 m and tub volume more than 6 m^3) should not exceed one bather per 4 m^2 of water surface.

In case the recreational water facilities of the cruise ship has not been operated as per the European Manual standards, or the cruise ship was in dry dock for more than a month, the steps described in "ESGLI Guidance for managing Legionella in building water systems during the COVID-19 pandemic" should be followed.

9.20. Decorative fountains

The standards of the "European Manual for Hygiene Standards and Communicable Diseases Surveillance on Passenger Ships" (http://www.shipsan.eu/Home/EuropeanManual.aspx) for decorative fountains should be applied. In case the fountain remained out of operation for more than a month, the steps described in "ESGLI Guidance for managing Legionella in building water systems during the COVID-19 pandemic" should be followed.

9.21. Commercial stores inside the accommodation facility

Electronic payments, cleaning and disinfection should be followed in commercial stores on board cruise ships. Clothes and other items should not be tried on (unless they can be laundered or disinfected afterwards) and shoppers should be encouraged not to handle items on display. Alternatively garments that have been tried on can be removed for 72 hours before being re-issued. Crew and passengers should wear face masks as described in Annex 1.

9.22. Interface between ship and shore-based personnel

To protect both crew and shore-based personnel who temporarily board the ship, precautions should be taken to minimise exposure risks to both. Where it is necessary for shore-based personnel to come on board, only the minimum number of personnel required should be allowed to embark. Furthermore, everyone who comes on board should observe hygiene protocols, screening measures and use of appropriate PPE as described in Annex 1.

9.23. Port visits, shore-based activities and excursions

Shore-based activities and excursions should follow the local rules of the areas visited. Passengers should follow the local rules while they are ashore. Cruise lines should ensure that passengers are aware of the local rules of each port visited.

Shore excursion/tour staff should be trained in the procedures to be followed if possible cases are identified. Symptomatic passengers should immediately wear a medical face mask if tolerated and be transferred to an isolation or medical area for evaluation. All close contacts of potential cases should also be identified.

EU/EEA MS, cruise lines and terminal operators at destinations should ensure that appropriate measures are implemented to reduce overcrowding and maintain appropriate physical distancing when passengers disembark and re-board the ship.

Ensure disembarking and embarking travellers (from different ships or from the same ship but different voyages) do not occupy the same enclosed or semi-enclosed areas (e.g. gangways, terminal waiting spaces, check-in areas) at the same time.

The cruise lines should take into consideration the epidemiological data of each port as well as the vaccination status of the crew members in order to decide if the day leaves or port visits will be allowed for crew members. In any case the local rules should be followed.

10. Managing COVID-19 cases on board cruise ships and at terminal stations

10.1. Management of a possible/confirmed case

Following a preliminary medical examination, if the ship's designated officer determines that there is a possible or confirmed case of COVID-19 on board[10], the patient should be isolated in an isolation ward, cabin, or quarters and infection control measures continued until they are disembarked or recovered. Cruise lines should designate a number of single cabins, depending on the total number of passengers and crew, to be used specifically for isolation of cases on board. Wherever possible, the designated cabins should be located near the ship's medical facility for ease of accessibility by crew, and if possible, have windows. Contact with patients in isolation should be restricted to only those necessary, and crew in contact with the isolated patient (e.g. medical personnel) should wear appropriate PPE as described in Annex 1. If it is feasible, the isolation cabins should be cleaned by the occupants; if not, then only terminal (final) cleaning and disinfection should be performed by trained staff when the patient has been discharged.

Further advice, including the management of possible/confirmed cases and use of the Passenger/Crew Locator Forms (PLFs) can be found in the EU HEALTHY GATEWAYS "Advice for

[10] ECDC, Case definition for coronavirus disease 2019 (COVID-19), as of 3 December 2020 https://www.ecdc.europa.eu/en/covid-19/surveillance/case-definition

cruise ship operators for preparedness and response to an outbreak of COVID-19", available at: https://www.healthygateways.eu/Novel-coronavirus

Surveillance for influenza like illness (ILI) should integrate COVID-19 surveillance, as symptoms compatible with COVID-19 include those for ILI (as currently cruise ships will be implementing measures for early detection of COVID-19 possible cases)[11].

Depending on the assessment of the COVID-19 event on board, it may be necessary to shorten or terminate the cruise as described in the EU HEALTHY GATEWAYS "Advice for ship operators for preparedness and response to an outbreak of COVID-19" document, which can be downloaded here: https://www.healthygateways.eu/Portals/0/plcdocs/EU_HEALTHY_GATEWAYS_COVID-19_MARITIME_20_2_2020_FINAL.pdf?ver=2020-02-21-123842-480

When a possible case of COVID-19 is detected, laboratory testing should be performed according to the instructions provided by ECDC (https://www.ecdc.europa.eu/en/novel-coronavirus/laboratory-support).

Negative results do not rule out the possibility of a COVID-19 virus infection. A number of factors could lead to a negative result in an infected individual, including:

- Poor quality of the specimen, containing little patient material (as a control, consider ensuring that there is always adequate human DNA in the sample by including a human target in the PCR testing);
- When the specimen was collected late or very early in the infection;
- If the specimen was not handled or shipped appropriately;
- Technical reasons inherent in the test, e.g. virus mutation or PCR inhibition.

If a negative result is obtained from a patient with a high index of suspicion for COVID-19 virus infection, particularly when only upper respiratory tract specimens were collected, additional specimens, including from the lower respiratory tract if possible (hospitalized in ashore facilities), should be collected and tested.

When it has been confirmed that specimen collection and testing for COVID-19 has been performed correctly, and as soon as the repeated results for the possible case are negative for COVID-19 according to the criteria by ECDC, then the case should be tested for influenza virus by means of viral detection through PCR techniques, not relying on rapid antigen detection tests. If the patient is positive for influenza, then the "Guidelines for the prevention and control of influenza-like illness on passenger ship" of the "European Manual for Hygiene Standards and Communicable Disease Surveillance on passenger ships" should be followed for the case management.

10.2. Management of contacts

Cruise lines should designate single cabins to be used specifically for temporary quarantine of close contacts on board for the required period, or until their disembarkation as described in

[11] https://www.ecdc.europa.eu/en/publications-data/strategies-surveillance-covid-19

the EU HEALTHY GATEWAYS "Advice for cruise ship operators for preparedness and response to an outbreak of COVID-19", available at: https://www.healthygateways.eu/Novel-coronavirus. Children should be quarantined in the cabin with one of their parents and similar consideration should be given to supporting passengers with special needs. The designated cabins should be located near the ship's medical facility for ease of accessibility by crew, and if possible, have windows to promote appropriate air exchange.

Management of contacts should be in accordance with paragraph 4.10 and/or the national policies of the port of disembarkation, and as detailed in the contingency plan/outbreak management plans of the cruise ship and the port. Advice for management of contacts can be found in the EU HEALTHY GATEWAYS "Advice for cruise ship operators for preparedness and response to an outbreak of COVID-19", available at: https://www.healthygateways.eu/Novel-coronavirus

10.3. Embarkation/disembarkation

As soon as a possible case is detected on board and for the duration of the journey until arrival at the final destination, a risk assessment of the event should be conducted (in cooperation of the port health authority and the ship officers) in order to decide if new passengers should not be allowed to board at intermediate destinations.

The competent authorities at the next port or destination will provide advice on management of the possible case and their contacts.

10.4. Reporting

In accordance with the IHR 2005, the officer in charge of the ship must immediately inform the competent authority at the next port of call about any possible case of COVID-19[21].

For ships on international voyage, the MDH must be completed and sent to the competent authority in accordance with the local requirements at the port of call. The MDH should include all cases of COVID-19 from the commencement of the voyage even if these cases have disembarked in a previous port of the itinerary or even if patients have recovered.

Ship operators must facilitate application of the health measures and provide all relevant public health information requested by the competent authority at the port. The officer in charge of the ship should immediately contact the competent authority at the next port of call regarding the possible case, to determine if the necessary capacity for transportation, isolation, laboratory diagnosis and care of the possible case/cluster of cases of COVID-19 is available at the port. The ship may be asked to proceed to another port in close proximity if this capacity is not available, or if warranted by the medical status of the possible case/cluster of cases of COVID-19. It is important that all arrangements are conducted as quickly as is feasible to minimise the stay of symptomatic possible case/cases on board the ship.

After each voyage and within seven days, ship owners, other ship operators or their representatives sailing in EU waters should report aggregated data about COVID-19 cases in

the "COVID-19 report form" of the EU Common Ship Sanitation Database (https://sis.shipsan.eu/).

It is advised that the competent health authorities record any case of COVID-19 reported on cruise ships in the P2P communication form of the EU Common Ship Sanitation Database, including any measures taken and measures to be taken from the next port of calls (https://sis.shipsan.eu/).

11. Responding to COVID-19 events retrospectively

Contact tracing is one of the most important public health activities in the response to the COVID-19 pandemic, and is extremely important in this adjustment phase.[12,13] It is recommended to use Passenger/Crew Locator Forms to ensure that contact information of passengers and crew is available, in order to facilitate contact tracing if a case of COVID-19 is detected. Contact tracing will be conducted as instructed by the competent public health authority.

Passenger/Crew Locator Forms should be available on board, and if needed disseminated to passengers and crew. If the company collects and keeps all information exactly as it is described in Annex 4 "Passenger/Crew Locator Forms (PLFs)", then it will not be necessary to complete the PLF, provided that this information can be extracted and sent to the competent health authority in accordance with local rules. EU HEALTHY GATEWAYS has developed an EU application for common digital PLFs for the air, maritime and ground transport sectors: https://www.euplf.eu/en/home/index.html. Information that travellers provide in PLFs can be used by public health authorities in destination countries to rapidly contact travellers, with the goal of protecting the health of travellers' and their contacts, as well as preventing further disease spread. Annex 4 provides details of the Passenger/Crew Locator Forms for cruise ships, which are also available from the EU HEALTHY GATEWAYS joint action website here: https://www.healthygateways.eu/Translated-Passenger-Locator-Forms.

Other means of contact tracing to identify and inform passengers of possible exposure may be employed by cruise lines, such as investigations by response teams, analysis of ship's CCTV, contact tracing wearable bracelets, use of mobile contact tracing applications and analysis of passenger key card usage.

12. Considerations for cruise terminals

12.1. Physical distancing

Physical distancing of at least 1.5 metres or as otherwise recommended/required by the national/local health authority rules of the home port or the port of call could be maintained,

[12] ECDC, Contact tracing: Public health management of persons, including healthcare workers, having had contact with COVID-19 cases in the European Union - second update at: https://www.ecdc.europa.eu/en/covid-19-contact-tracing-public-health-management
[13] ECDC, Mobile applications in support of contact tracing for COVID-19 - A guidance for EU EEA Member States at: https://www.ecdc.europa.eu/en/publications-data/covid-19-mobile-applications-support-contact-tracing

in combination with the use of face masks and respiratory etiquette in all internal and external areas of the terminal.

To avoid overcrowding and maintain physical distancing measures, competent authorities in EU/EEA MS and/or terminal operators may consider allowing only passengers, crew and other shore-based/terminal personnel, workers and contractors to enter indoor cruise facilities. Staggered flow of crew and passengers could facilitate physical distancing.

The use of floor markers to ensure spacing, arrows to indicate directional flow, as well as prominent signage and audio announcements for travellers could be considered, in order to optimize layouts and restrict the number of indoor cruise terminal users.

Dedicated lanes or separation of different user flows, in addition to dividing terminals into designated zones (e.g. arrival, screening, post-screening) through which travellers must pass through for arrival, screening/testing and document processing (before being cleared for boarding and embarkation) may be considered.

Check-in, disembarkation, luggage handling, passenger queuing (inside and outside the terminal) and provision handling could be adjusted to reduce overcrowding and maintain physical distancing. Work and break schedules of crew and personnel who work in the terminal could be reviewed and adjusted to avoid overlap of crew.

For the protection of cruise terminal personnel and ship crew, the use of protective glass or plastic panels could be considered at locations where physical distancing cannot be maintained or guaranteed. Furthermore, a medical mask, or FFP2 or equivalent mask that fits well could be provided. Appropriate ventilation should be implemented at the terminal buildings.

Cruise terminal operators could consider removing terminal facilities that encourage crowding (e.g. tables, benches etc.). Where there are permanent, non-moving seats either indoors or outdoors, there could be special markings on where a passenger is and is not allowed to sit in order to maintain physical distance. When conditions allow, terminal users could be encouraged to use outdoor spaces. Health promotion information material could be prominently displayed and provided to incoming and outgoing passengers.

In public toilets, the number of users could be managed to maintain physical distancing of 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) between users (or otherwise in accordance with national policy).

Digital methods could be used for as many processes as possible at the terminal to reduce the time that passengers spend in the terminal and avoid congestion. This can include processes for on-line purchasing, issuing of boarding passes, automatic passport and ID scanners.

Terminal operators may consider limiting the number of taxis, coaches and buses present at the terminal to control/limit overcrowding in waiting areas.

Designated terminal personnel could oversee the process and compliance with the physical distancing measures.

12.2. Preventing droplet transmission by the use of face masks

Competent authorities should require all terminal personnel, ship crew, passengers and other users of the cruise terminal to use medical face masks or respirators at all times when entering or on the premises, taking into consideration their national epidemiological aspects and the international spread of disease. Strategies to improve the medical mask or respirator fit could be considered as described in paragraph 9.6.

Exceptions for wearing masks include when eating, drinking, seated on sunbeds, swimming or doing other activities where the mask would get wet (in which case physical should be practiced). Designated terminal personnel should monitor compliance of face mask wearing, especially in terminal areas where physical distancing is challenging to maintain. In countries that have chosen to implement face mask policies, this should be communicated at the time of the ticket booking. Adequate PPE as described in Annex 1 should be provided and distributed to all terminal personnel, with personnel trained in proper use (wearing, removing, management and safe storage or disposal) and strategies to improve fit.

12.3. Respiratory etiquette

Respiratory etiquette should be encouraged in terminals: the nose and mouth should be covered with disposable paper tissue when sneezing or coughing and then the tissue should be disposed of immediately in a no touch bin, followed by meticulous hand hygiene using water and soap or an alcohol-based hand rub solution. It is important to have relevant supplies available in different areas throughout the terminal (e.g. disposable tissues or paper towels and disposable gloves, no touch bins etc.). If disposable paper tissues are not available, coughing or sneezing into the elbow is recommended. Information regarding proper respiratory etiquette should be provided to users of the terminal through announcements, TV, screens, leaflets, infographics, electronic posters etc.

12.4. Hand hygiene

Good hand hygiene should be promoted and practised by all terminal personnel and users with frequent and thorough hand washing using soap and water, or where hands are not visibly soiled, an alternative alcohol-based hand rub solution may be used. It should be noted that the use of gloves does not replace hand hygiene and that glove use in the community is not recommended to prevent transmission of SARS-CoV-2. Furthermore, glove use may provide a false sense of security. Stations with alcohol-based hand-rub solutions (containing at least 60% ethanol or 70% isopropanol) should be available at all entrances of the terminal and other areas such as toilets, counters, terminal zones and at embarkation etc. Designated terminal personnel may oversee the process and help encourage compliance with hand hygiene requirements. Prominent signage regarding hand hygiene should be displayed throughout areas of the terminal.

12.5. Cleaning and disinfection

Terminals should remain closed until the time of boarding and access should only be granted to personnel consistent with overall prevention, cleaning and disinfection procedures.

Cleaning and disinfection should take place in accordance with routine procedures and with an increased frequency for surfaces that are frequently touched by terminal personnel and users. Cleaning and disinfection of the terminal should be conducted before and after each embarkation, by personnel using appropriate PPE. Cleaning and disinfection should follow the same protocols as those used on board cruise ships as described in paragraph 9.8. Special protocols for cleaning and disinfection should be available and implemented after a possible or confirmed case has been identified, either at the terminal or on board a ship, if they used the terminal facilities.

12.6. Ventilation

Indoor areas at cruise terminals should be adequately ventilated. The number of air exchanges per hour (both for natural and mechanical ventilation) should always be according to the applicable building regulations and should be maximised as much as possible. However, draughts should be directed away from individuals (especially stationary individuals) since they could create a risk of spreading any aerosolized droplets further. In case of mechanical ventilation, recirculation should be avoided as much as possible.

12.7. Health monitoring of terminal personnel

Terminal personnel should practice frequent hand hygiene and wear appropriate PPE based on their specific work duties. It is recommended that terminal personnel follow the same screening protocols as travellers for entry to the terminal. Laboratory testing for COVID-19 of terminal workers could be conducted on a regular basis.

12.8. Management of possible cases and their contacts at the cruise terminal

Once a possible case is detected a contingency plan/outbreak management plan should be activated.

The possible case should be asked to wear a medical face mask as soon as they are identified. If a medical face mask cannot be tolerated, the possible case should practice strict respiratory etiquette and hand hygiene. An appropriate isolation space/cabin should be designated for isolating possible cases of COVID-19. The isolation cabin should be equipped with appropriate supplies (medical face masks, hand hygiene supplies, tissues and no-touch waste disposal bins etc.) and, if possible, with a separate toilet. The door should be kept closed at all times and entrance should be restricted only to personnel trained for responding to possible cases of COVID-19.

As soon as a possible case is detected, the public health competent authorities should be informed immediately in order to conduct any preliminary interviews and to manage the possible case and close contacts in accordance with the national protocols.

12.9. Baggage handling

Baggage handlers should perform frequent hand hygiene. Gloves are not required unless used for protection against mechanical hazards. Disinfection of luggage and especially the hand contact parts may be considered before loading luggage on board.

Annexes

Annex 1: Overview of suggested personal protective equipment (PPE) on cruise ships

This annex provides an overview of recommended PPE to be used on board cruise ships in the context of lifting restrictive measures in response to the COVID-19 pandemic.

Cruise ships are workplace settings for crew members employed on board. Specific measures can be implemented in these settings in the context of COVID-19 as operations gradually restart, to prevent and minimize the risk of virus transmission while protecting the health of both crew members and passengers. Personal protective and environmental measures should be implemented together in workplaces, in this case on board cruise ships (23).
Examples of public health measures that can be applied include (10, 24):

- Promotion of frequent and meticulous hand hygiene by all crew members and passengers, also ensuring relevant supplies (e.g. soap, alcohol-based hand rub solution) are readily available
- Promotion of proper respiratory etiquette by all crew members and passengers, also ensuring relevant supplies (e.g. disposable tissues, no-touch waste bins) are readily available
- Encouragement of physical distancing of at least 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call). Additional mitigation measures can be implemented to limit contact/interaction between crew members and between crew members and passengers (e.g. installation of sneeze guards/transparent dividers, directional controls in high-traffic areas, staggering of workspaces to provide separation, etc.)
- Ensuring a supply of medical face masks or respirators or equivalent are available in the event that a crew member or passenger on board develops symptoms compatible with COVID-19
- Ensuring a supply of face masks are available for use to prevent droplet transmission and protect high-risk groups, and provide information on proper face mask management (e.g. use, storage, cleaning or disposal)
- Ensuring cleaning and disinfection of surfaces and objects according to routine procedures and with increased frequency in areas and on surfaces that are frequently touched by crew members and passengers
- Education, regular training and continuous risk communication on the importance of personal protective and environmental measures implemented on board
- Ensuring appropriate ventilation of closed environments

Overview of face masks presented in this Annex

Face mask: an overarching term used for any device (i.e. a community face covering, medical face mask or a respirator) that is worn over the mouth and nose to prevent the inhalation of harmful substances such as infectious respiratory droplets or the release of infectious respiratory droplets produced by breathing, speaking, coughing or sneezing the in the environment (25).

Personal protective equipment (PPE)		Protection offered
Respirator e.g. class 2 or 3 filtering face-piece (FFP2/FFP3) mask or filtering half mask	 ©ECDC	• Device protecting the wearer against inhalation of droplets and small airborne particles, including aerosols • Require fitting test • Primarily used by health care workers, particularly during aerosol-generating procedures for protection • Requirements for FFPs specified in standards published by the European Committee for Standardisation (comply with requirements defined in European Standard EN 149:2001+A1:2009) • N95/N99 respirators are the United States of America's equivalent to FFP2/FFP3 respirators (as defined in US standard NIOSH 42 CFR, part 84); KN95/KP95 standards in China have similar performance requirements
Medical face mask (surgical or procedural mask)	 ©ECDC	• Disposable medical device protecting the user against potential large infective respiratory droplets • Protects against exhaled droplets when worn by ill patient • Does not require fit-testing but require proper fitting • Requirements for medical face mask specified in standards published by the European Committee for Standardisation (comply with requirements defined in European Standard EN 14683:2014)

European Centre for Disease Prevention and Control. Considerations for the use of face masks in the community in the context of the SARS-CoV-2 Omicron variant of concern. Stockholm: ECDC; 2022 (https://www.ecdc.europa.eu/en/publications-data/using-face-masks-community-reducing-covid-19-transmission)

General considerations for use of face masks (medical masks) (26, 27)

- Proper wearing (donning) and removing (doffing) procedures for face masks should be followed. Hand hygiene with an alcohol-based hand rub solution or soap and water should be conducted before putting and taking off the mask and immediately after removing the mask and disposing of it.

- Face masks should be placed carefully and secured to the wearer's head with ties or ear loops, ensuring that the mask covers their nose and mouth completely, and is secured under the chin. Face masks should be removed from behind and the wearer should be careful to avoid touching the mask (front side) when removing.

- Face masks should not be touched while wearing; if touched hand hygiene should be performed.

- Face masks should be changed as soon as they become damp.

- Single-use/disposable face masks should be discarded after each use or if they become wet or damaged and disposed of safely (e.g. in a closed bin or bag) immediately after removing, followed by hand hygiene. Single-use face masks should not be reused.

- Face masks should not be worn by children under the age of 6 years, individuals with breathing difficulties or those who are unconscious or unable to remove a mask on their own.

- Face masks should be worn properly at all times, covering the wearer's mouth and nose completely, fitting against the face snugly but comfortably to reduce any gaps between the wearer's face and the mask. The face mask should be adjusted to the bridge of the wearers' nose and secured under the chin to ensure no gaps between the mask and the face. Ear loops of face masks should not be crossed as this may cause gaps between the mask and the face. Masks should not be removed to speak.

- Masks should **not** have exhalation valves, slits or be damaged in any way (wearers should inspect the mask before putting on).

- Strategies exist to improve the fit of medical face masks and community face coverings to reduce any gaps between the wearer's face and the face mask. These strategies include: using fitters and braces over a medical face mask or community face covering, choosing masks that have nose wires, using a knotting/tucking technique, or "double masking"[14]. Further details about strategies that can be used by crew members to improve face mask fit can be found here: https://www.ecdc.europa.eu/en/publications-data/using-face-masks-community-reducing-covid-19-transmissionFor respirators to ensure proper protection, a pre-use seal check should be conducted and repeated each time the wearer dons a respirator

- Additional resources for face mask use and management can be found at the following:

  WHO: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks
  ECDC: https://www.ecdc.europa.eu/en/covid-19/prevention-and-control/protect-yourself
  CDC: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html

- Other personal preventive measures should be practiced when wearing a face mask, including hand hygiene, respiratory etiquette and maintaining a distance of at least 1.5 metres[15] from others as far as practicable.

Advice for the use of face masks by passengers and crew members

The following tables list recommended PPE for crew members, passengers and others based on specific settings and situations. Also provided are general recommendations for PPE to be used at terminal stations (detailed guidance about PPE use at terminal stations can be found here: https://www.healthygateways.eu/Novel-coronavirus).

[14] Double-masking refers to wearing two face masks simultaneously (wearing a community face covering over top a medical face mask). Centers for Disease Control and Prevention. Types of Masks and Respirators. 28 January 2022. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html

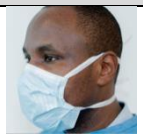
[15] or otherwise as per national/local health authority requirements of the home port or the port of call.

Table 1: Crew members - no interaction

WHO	WHEN	WHAT
Crew members	Located in their own individual cabin on board	**No face mask recommended**
		Frequent hand hygiene

As outlined in Table 1, when crew members are situated in their individual cabins where no interaction with others will occur, there is no need for the use of a face mask. In these situations, crew members should still practice frequent and meticulous hand hygiene.

Table 2: Crew members on board

WHO	WHEN	WHAT	
Crew members	Crew members on duty any time at indoor spaces outside of individual cabins or working with other crew members (e.g. in public spaces, service areas etc.) Crew members off duty and at indoor spaces outside of individual cabins, regardless of whether physical distancing of 1.5 metres can be maintained Crew members in contact/interacting with passengers including when: - Handling food - Cleaning cabins Face masks must be worn outdoors if physical distancing cannot be maintained	**Medical mask[a]** **OR** **Properly fitting respirator (FFP2 or equivalent)**	 ©ECDC **OR**  ©ECDC
		Frequent hand hygiene	

[a] Could consider strategies to improve mask fit: using masks with a nose wire or mask fitter/brace, double masking etc.

As outlined in Table 2, any time crew members are outside of their individual cabins on board (whether on or off duty) and regardless of whether physical distancing can be maintained, a face mask should be worn. Exceptions to mask use on board include when eating or drinking.

Table 3: Passengers on board

WHO	WHEN	WHAT	
Passengers	Recommendation: Anytime at indoor areas outside of cabin, regardless of whether physical distancing of 1.5 metres can be maintained Face masks are recommended to be worn outdoors if physical distancing cannot be maintained	**Medical mask[a]** **OR** **Properly fitting respirator (FFP2 or equivalent)**	 ©ECDC **OR**  ©ECDC
		Frequent hand hygiene	

[a] Could consider strategies to improve mask fit: using masks with a nose wire or mask fitter/brace, double masking etc.

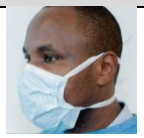
As seen in Table 3 in any situation or setting where passengers may interact with one another outside of their cabins, regardless of whether physical distancing can be maintained, a face mask is recommended to be used. Exceptions include during eating, drinking, seated on sunbeds, when swimming or doing other activities where the mask would get wet.

Table 4: Crew members entering the medical facility/isolation area

WHO	WHEN	WHAT	
Medical personnel or crew members	Entering the medical facility/isolation area on board	**Properly fitting respirator (FFP2 or equivalent)** *If not available* **Medical face mask**	 ©ECDC **OR**  ©ECDC
		Frequent hand hygiene	

In the event that a possible COVID-19 case is being cared for, entering the medical facility/isolation area requires the use of a respirator or if unavailable, medical face mask and other appropriate PPE (e.g. goggles or face shield, as well as gloves and long-sleeved impermeable gowns if there is a risk of contact with body fluids or if contamination of the area is considered high). Only crew providing care should be admitted to the medical facility/isolation area.

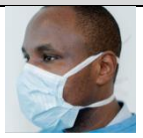
Table 5: Settings on board cruise ship where respiratory protection is strongly recommended for passengers

WHO	WHEN	WHAT	
Passengers	Strong recommendation: All areas outside of individual cabins on board regardless of whether physical distance of 1.5 metres can be maintained. Examples of settings include: - Walking/passing in narrow corridors on board - In elevators on board - In entertainment venues, dining areas, reception areas, spas/hairdressers	**Medical mask[a]** **OR** **Properly fitting respirator (FFP2 or equivalent)**	 ©ECDC **OR**  ©ECDC
		Frequent hand hygiene	

[a] Could consider strategies to improve mask fit: using masks with a nose wire or mask fitter/brace, double masking etc.

There are certain settings on board as outlined in Table 5 where the use of respiratory protection is strongly recommended for passengers.

Table 6: Other settings where respiratory protection is strongly recommended

WHO	WHEN	WHAT	
Passengers	Strong recommendation: All areas and settings outside the ship where interaction with others may occur, regardless of whether physical distance of 1.5 metres can be maintained Examples of settings include: - When entering and on the premises of the terminal station - During embarkation at the terminal station - On buses during transport - On board lifeboats - During disembarkation - During on-shore activities /excursions	**Medical mask[a]** **OR** **Properly fitting respirator (FFP2 or equivalent)**	 ©ECDC **OR**  ©ECDC
		Frequent hand hygiene	

[a] Could consider strategies to improve mask fit: using masks with a nose wire or mask fitter/brace, double masking etc.

Table 6 describes situations where use of respiratory protection is strongly recommended in areas outside the cruise ship where a high density of people may congregate and physical distancing is challenging, including during embarkation at the terminal, during transfers on buses (28)(28)(27)(27)(27)(27)(27)(26)(28) on board lifeboats.

Table 7: Shore-based personnel

WHO	WHEN	WHAT	
Shore based personnel boarding the ship before assessment by authorities: - Maritime pilots - Ship agents - Port workers (including shipyard workers) - Medical personnel	All areas and at all times when shore-based personnel are boarding a conveyance, including when interaction with crew members, regardless of whether physical distance of 1.5 metres can be maintained	**Medical mask[a]** **OR** **Properly fitting respirator (FFP2 or equivalent)**	 ©ECDC **OR**  ©ECDC
		Frequent hand hygiene	

[a] Could consider strategies to improve mask fit: using masks with a nose wire or mask fitter/brace, double masking etc.

Face masks should be used by shore-based personnel boarding the ship, regardless of whether physical distancing of 1.5 metres can be maintained and there may be interaction with crew.

Annex 2: Supervised self-collection of nasal swab samples

This annex presents considerations and essential procedures for cruise ships which implement supervised self-collection of nasal swab samples for the routine testing of crew members (RADT or NAAT). This should be decided in agreement with the competent local authorities at the home port as part of ensuring interoperability of port and cruise ship COVID-19 public health emergency contingency plans.

The cruise line should develop detailed procedures for supervised self-collection of nasal swab samples and submit for approval to the local authorities. The submitted procedure should describe:

- **Who supervises the testing procedure and how?**
  A member of the medical team or another contractor with a healthcare qualification should be present and supervise the procedure. Additional group supervisors who have received training for their tasks could be assigned in each group as facilitators of supervisors. The group of individuals supervised by the same supervisor should be not more than 12 persons at the same time.

- **How will the individuals be informed of the testing procedure?**
  Written (preferably using schematics and figures) and verbal instructions (videos could be also used) should be provided in accordance with the manufacturer instructions.

- **What are the measures taken during the supervised testing (e.g. physical distancing, hand hygiene, etc.)?**
  Physical distancing of at least 1.5 metres should be maintained by all individuals in the room.

  Hand washing should take place by individuals before and after the swabbing procedures and after touching any potentially contaminated material in the room (e.g. garbage, surfaces).

  Supervisors and facilitators should perform hand hygiene frequently. FFP2/N95 type face masks, disposable apron, gloves and goggles or face-shield should be worn by supervisors and facilitators. FFP2/N95 type face masks or medical masks should be worn at all times by individuals who will be tested. Removal of mask should be allowed only the time of nasal swabbing.

- **How are the individuals identified and how are the samples/kits labelled?**
  It is advised to carry out the identification of individuals and record results without using and touching the same equipment by many individuals (e.g. pencils, lists, documents etc.). Procedures should be established which avoid cross contamination.

- **What are the waste management procedures?**
  All waste materials are collected and disposed of as biohazardous waste in accordance with ship waste management procedures.

- **What are the cleaning and disinfection procedures?**
  Surfaces and any re-used materials should be disinfected after each use. The room should be well ventilated between testing of different groups. Cleaning and disinfection of the test and waiting areas is conducted in accordance with the ship COVID-19 procedures.

- **What are the specifications of the facility/area (e.g. size, ventilation, etc.) and equipment?**

Facilities should be well ventilated and with adequate lighting. The maximum capacity of the room should be defined and maintained at all times: 1 person per 5 square metres. Tissues, hand hygiene equipment and materials should be readily available.

- **Who will perform the results reading, interpret and sign the test results?**
  A member or the medical/nurse team or a contractor with the same qualifications should read, interpret and sign the results. Record keeping of results could be undertaken by the facilitator. Records should include the data listed in the definition section “proof of testing” and be available to competent authorities.

- **What are the procedures in response to a positive result?**
  The procedures for management of a COVID-19 case should be followed as described in the contingency plan on board of the ship. Supervised self-collection of nasal swab samples should be used only as part of the routine health screening and not used for any possible case.

- **What type of test will be used?**
  A RADT should be used as described in the definition section and according to the manufacturer’s instructions.

Annex 3: Pre-boarding health declaration questionnaire

(The questionnaire is to be completed by all adults before embarkation)

NAME OF VESSEL	CRUISE LINE	DATE AND TIME OF ITINERARY	PORT OF DISEMBARKATION
Contact telephone number for the next 14 days after disembarkation:			
First Name as shown in the Identification Card/Passport:	**Surname as shown in the Identification Card/Passport:**	**Father's name:**	**CABIN NUMBER:**
First Name of all children travelling with you who are under 18 years old:	**Surname of all children travelling with you who are under 18 years old:**	**Father's name:**	**CABIN NUMBER:**

Questions

Within the past 14 days	**YES**	**NO**
1. Have you or has any person listed above, presented sudden onset of symptoms of fever or cough or difficulty in breathing or sudden loss of taste/smell, runny nose, sore throat, vomiting or diarrhoea?		
2. Have you, or has any person listed above, had close contact with anyone diagnosed as having COVID-19?		
3. Have you, or has any person listed above, provided care for someone with COVID-19 or worked with a health care worker infected with COVID-19?		
4. Have you, or has any person listed above, worked in close proximity to or shared the same classroom environment with someone with COVID-19?		
5. Have you, or has any person listed above, travelled with a patient with COVID-19 in any kind of conveyance?		
6. Have you, or has any person listed above, lived in the same household as a patient with COVID-19?		
Test results and vaccination		

1. Have you been tested for COVID-19 with a molecular method (RT-PCR) within the past 72 hours (if the country of embarkation requires it)?	□ No □ Pending results □ Positive* □ Negative
2. Have you performed, the day of embarkation, a rapid test for COVID-19?	□ No □ Positive* □ Negative
3. Do you have a valid proof of vaccination or recovery?	□ No □ Yes

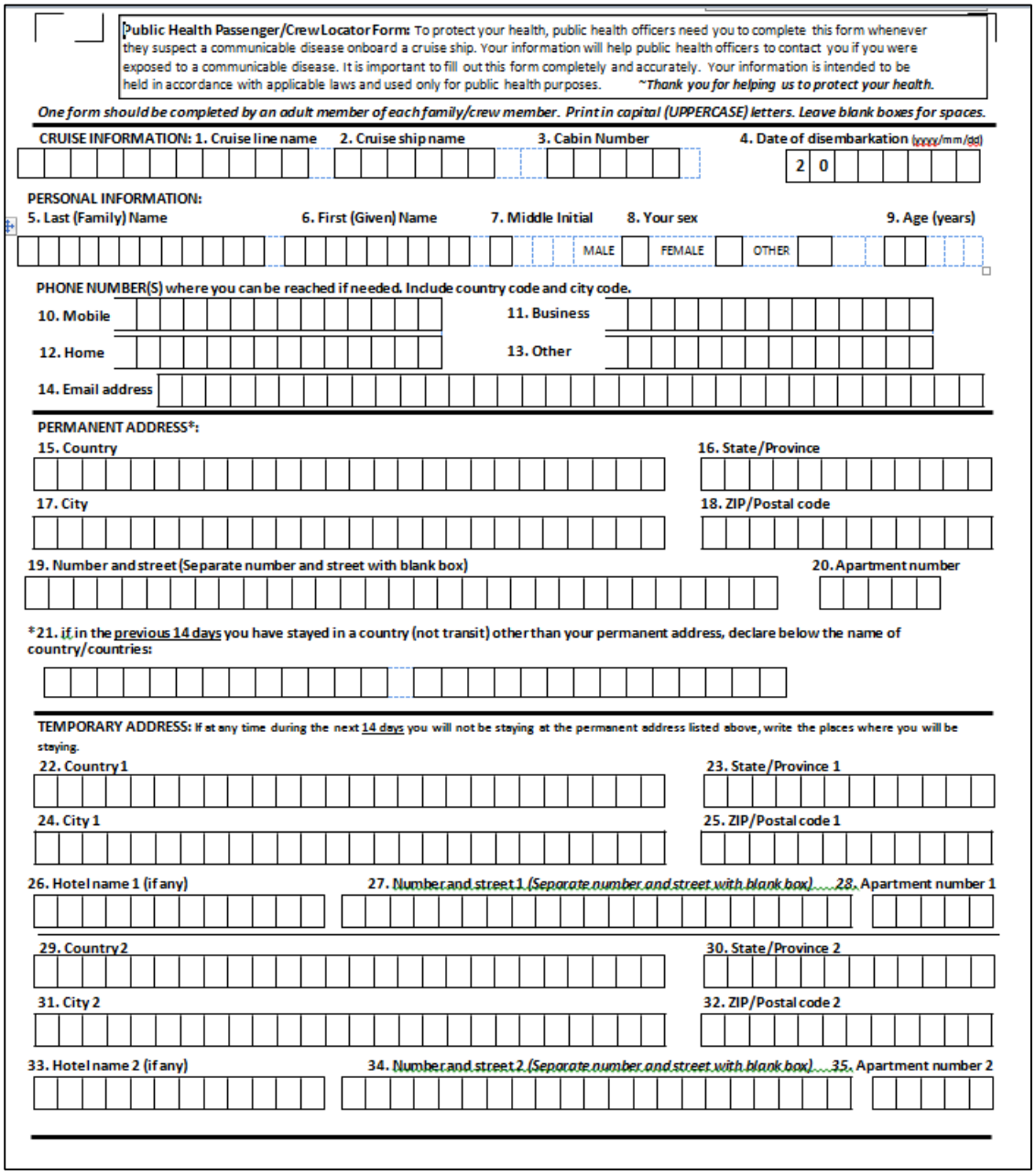
* Embarkation on board the vessel is prohibited only if there is an affirmative answer

Annex 4: Passenger/Crew Locator Form (PLF) for cruise ships

The form is available in Word format from the following link:

https://www.healthygateways.eu/Translated-Passenger-Locator-Forms

Considerations on passenger locator data can be found here: https://www.ecdc.europa.eu/en/publications-data/passenger-locator-data-entry-exit-screening-health-declaration



Public Health Passenger/Crew Locator Form: To protect your health, public health officers need you to complete this form whenever they suspect a communicable disease onboard a cruise ship. Your information will help public health officers to contact you if you were exposed to a communicable disease. It is important to fill out this form completely and accurately. Your information is intended to be held in accordance with applicable laws and used only for public health purposes. *~Thank you for helping us to protect your health.*

One form should be completed by an adult member of each family/crew member. Print in capital (UPPERCASE) letters. Leave blank boxes for spaces.

CRUISE INFORMATION: 1. Cruise line name | 2. Cruise ship name | 3. Cabin Number | 4. Date of disembarkation (yyyy/mm/dd) 2 0

PERSONAL INFORMATION:
5. Last (Family) Name | 6. First (Given) Name | 7. Middle Initial | 8. Your sex: MALE FEMALE OTHER | 9. Age (years)

PHONE NUMBER(S) where you can be reached if needed. Include country code and city code.
10. Mobile | 11. Business
12. Home | 13. Other
14. Email address

PERMANENT ADDRESS*:
15. Country | 16. State/Province
17. City | 18. ZIP/Postal code
19. Number and street (Separate number and street with blank box) | 20. Apartment number

*21. if in the previous 14 days you have stayed in a country (not transit) other than your permanent address, declare below the name of country/countries:

TEMPORARY ADDRESS: If at any time during the next 14 days you will not be staying at the permanent address listed above, write the places where you will be staying.
22. Country 1 | 23. State/Province 1
24. City 1 | 25. ZIP/Postal code 1
26. Hotel name 1 (if any) | 27. Number and street 1 (Separate number and street with blank box) | 28. Apartment number 1
29. Country 2 | 30. State/Province 2
31. City 2 | 32. ZIP/Postal code 2
33. Hotel name 2 (if any) | 34. Number and street 2 (Separate number and street with blank box) | 35. Apartment number 2

36. TRAVEL COMPANIONS – FAMILY: Only include age if younger than 18 years

	Last (Family) Name	First (Given) Name	Cabin number	Age <18
(1)				
(2)				
(3)				
(4)				

37. TRAVEL COMPANIONS – NON-FAMILY/NON-SAME HOUSEHOLD: Also include name of group (if any)

	Last (Family) Name	First (Given) Name	Group *(tour, team, business, other)*
(1)			
(2)			

To be completed by CREW only:

38. Working sector on board:

39. Co-habitants in cabin:

	Last (Family) Name	First (Given) Name
(1)		
(2)		
(3)		
(4)		

Working group members

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