

Interim advice for restarting river cruise ship operations after lifting restrictive measures in response to the COVID-19 pandemic

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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 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, 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 30 April 2021) 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

River 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 sea-going cruise ships affecting both passengers and crew (1). Unprecedented challenges were faced by both the cruise ship industry, the public health authorities and all related sectors in dealing with cruise ship evacuations and management of outbreaks of COVID-19. As on-going transmission is currently reported in many countries worldwide and considering that several cases are asymptomatic, it is expected that both asymptomatic and symptomatic COVID-19 cases will most likely occur on board river cruise ships, as in similar touristic venues ashore, if preventive measures are not implemented. In addition to measures aimed at excluding infected persons from boarding a river cruise ship, early detection and isolation of the first case, disembarkation, and quarantine of close contacts² in facilities

² 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 to 10 days after the onset of symptoms. If the case had no symptoms, a contact person is defined as someone who had contact with the case within a timeframe ranging from 48 hours before the sample which led to confirmation was taken

ashore are all essential elements for effectively preventing future COVID-19 outbreaks on board river cruise ships (2). Implementation of the International Health Regulations 2005 provisions by both the competent authorities at river ports and the ship operators in regard to the 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 river cruise ship operators about options for measures on river cruise ships (of any capacity or flag state that sail on an international voyage) that could be applied after lifting the restrictive measures implemented in response to the COVID-19 pandemic in 2021.

Similar to other holiday-makers, for cruise passengers, public health risks exist not only while travelling on board river cruise ships, but during the entire journey beginning from home to the river 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 river 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 river 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 for accepting incoming tourists to cross borders and to board river cruise ships at the turnaround ports should also be considered in river cruise ship operators plans.

to 10 days after the sample was taken. A: If a single or more cases sharing the same cabin have been identified on board, then the following definitions of contacts should be applied:

High-risk exposure (close) contact

- 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 cabin steward crew member who entered the cabin of a case while they were inside the cabin, without wearing appropriate PPE. For example, a crew member who cleaned the cabin of a case or who delivered food to the cabin where the case was staying and while the case was in the cabin, without wearing appropriate PPE.
- A person who has had face-to-face contact (on-board or on-shore) within 1.5 metres for more than 15 minutes or who was in a closed environment for more than 15 minutes with a case. 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.
- Healthcare workers or other persons providing direct care for a case without wearing appropriate PPE.

Low-risk exposure (casual) contact

- Risk assessment of individual cases and their contacts will be conducted by the public health authorities and the ship to define the low-risk exposure (casual) contacts. Any data available from contact tracing technologies will also be considered.

B. If three or more confirmed cases who are staying in two or more different cabins and who are not travelling together (excluding the cases identified the day of embarkation): Risk assessment of individual cases and their contacts will be conducted by the public health authorities and the ship as part of contact tracing. Risk assessments could identify additional contacts who are not under the categories listed in part “A” of the definition. Any data available from contact tracing technologies will also be considered. Local/national regulations, definitions and procedures could also apply as part of the contact tracing.

It is suggested that a gradual approach to restarting river cruise ship operations should be considered. When resuming operations, river cruise ship operators may initially consider using itineraries of a short duration (e.g. 3 to 7 days) and to perhaps limit the number of port visits in the itinerary. The willingness and capacity of countries included in the itinerary should be explored, and arrangements should be in place with the ports of call

3. Essential prerequisites

According to the International Health Regulations (IHR) 2005, designated ports must have the capacities to provide appropriate public health emergency response, by establishing and maintaining a public health emergency contingency plan. Even if river ports are not designated port, interoperability of the port public health emergency contingency plan with the river cruise ship contingency plan/outbreak management plan should be ensured to effectively manage cases/outbreaks on river cruise ships.

For each river 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 river cruise ship operators (see paragraph 5.2) and shared with the competent authority of the contingency port). This is the responsibility of the river cruise ship operators. A review from a port authority is not obligatory. It is recommended that both the river cruise ship and the port designate a single point of contact to facilitate the coordination. In particular, before river cruise ship operators resume operations, 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 river cruise ship contingency plan/outbreak management plan. The arrangements 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 arranged in accordance with the country policy, for example these could be formalised in a written agreement between the cruise company and the authorities of the ports (contingency port or transit port) to be visited describing all the detailed arrangements agreed. The responsibilities for arrangements will depend on the country policy: the river cruise operator can be responsible to pre-arrange the facilities for possible quarantine for the passengers and inform the competent health authority at the contingency port or the public health authority can organise the facilities in cooperation with the cruise lines. “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. It is advised that at each country a river cruise ship is visiting, one port has the role of the contingency port (the ship should reach the contingency port within less than 48 hours). “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.

3.1. Monitoring of epidemiological situation, rules and restrictions worldwide

Before starting journeys and throughout river cruise ship operations, it is essential that river cruise ship operators monitor the epidemiological situation worldwide and at the river 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 river 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 (as categorised by the European Commission/ECDC or the national policies). River cruise ship operators 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 (3). River cruise ship operators should also follow national guidelines and restrictions when passengers or crew travel from a different country. The river cruise ship operators should clearly identify the rules regarding the reception of people from outside the EU / Schengen area in advance. 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>

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

Each river cruise ship should have in place a written, regularly updated and tested contingency plan/outbreak management plan for the prevention and control of possible cases of COVID-19 as described in paragraph 5.2. The river cruise ship operators should establish contacts with at least one port authority in every country along the projected route that is available to communicate with the river cruise ship industry about public health matters. This port should provide primary contact details (24/7) and should be available for advice in case of on-board public health events and can refer the ship to a port that can provide assistance. This port should also provide direct contact information to authorities and public health departments along the route.

The contingency plan/outbreak management plan includes transport plans hygiene protocols, and other content as described below including the name of relevant (travel) agencies who can arrange transport, housing etc.

3.3. Arrangements for medical treatment and ambulance services

Before starting journeys, river cruise ship operators should check and ensure with ports of call whether, if needed, arrangements for transportation of passengers to medical or testing facilities ashore are in place (including possible air evacuation if needed). This can be either accomplished with a (local) taxi company or with a company or port agency that arranges transport when requested. For ill travellers, transportation will be arranged in accordance with the local rules and policies for transporting symptomatic COVID-19 patients. The above should be clearly described in both written contingency plans of river cruise ships and at least one port in the ship itinerary for each country visited, with the possibility of also using additional contingency ports during the voyage.

If the river ship does not have a medical doctor on board then the river cruise operators should make sure that the crew on board is able to contact medical doctor ashore in order to provide medical consultation on board the ship as needed.

3.4. Arrangements for repatriation

Before starting journeys, river cruise ship operators should ensure with ports along the route that, if needed, repatriations and crew changes can be organised. It is suggested that river cruise ship operators have in place repatriation plans for passengers and crew members, considering different scenarios for partial or complete river cruise ship evacuation in the event of a COVID-19 outbreak on board. Repatriation should be the responsibility of the cruise ship operators. Contacts with transport companies (busses/taxi) from the river cruise ship operators to the airport should be established. This can be either with a (local) taxi company or with a company or port agency that arranges transport when requested.

River cruise ship 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, based upon the most up-to-date information from the airlines, the country of departure and the country of arrival, during the planning process by both the competent authorities at ports and the river cruise ship operator. In addition, airline public health policies and public health policies of home countries should be considered in planning of repatriation processes. Instructions are updated by means of established contacts with travel agencies. Crew members should be considered as essential workers and allowed to also travel during COVID-19 travel restrictions.

3.5. Arrangements for quarantine of close contacts (exposed passengers or crew members with negative RT-PCR test results for SARS-CoV-2)

Before starting journeys, arrangements should be made between the river cruise ship operators and the local/national authorities of the port and/or the contingency ports of each country (local/national authorities could be commercial or national companies) for quarantine³ facilities and procedures to be followed for close contacts. The facilities should be agreed upon and pre-specified (e.g. hotels). The authorities should be informed before the river cruise trips start of the number and nature of the designated facilities available for quarantine as well as of the measures that will be followed at these facilities (e.g. monitoring of symptoms, testing procedure, etc.) Residents of the country of disembarkation could be quarantined at home, according to local/national rules and procedures. Transport plans and hygiene protocols could be included in the contingency plan of the port (or are compliant with national policy), as well as the river cruise ship contingency plan/outbreak management plan. Contacts with transport companies (busses/taxi) should be available. If necessary also temporary accommodations (hotels) should be contracted. This can be either with a (local) company or via a company or port agency that arranges transport when requested.

³ Quarantine: the restriction of activities and/or separation from others of suspect persons who are not ill or of suspect baggage, containers, conveyances or goods in such a manner as to prevent the possible spread of infection or contamination.

The procedures for management of close contacts can be found in the EU HEALTHY GATEWAYS Advice for ship operators for preparedness and response to the outbreak of COVID-19, available at: <https://www.healthygateways.eu/Novel-coronavirus>.

Close contacts that have been exposed to a confirmed case of COVID-19 should disembark as soon as possible, and be quarantined and monitored (self-monitored or otherwise according to the country procedures) in quarantine facilities ashore, in accordance with local national rules where quarantine is completed (2). Different scenarios with the expected numbers of persons to be quarantined should be considered and included in the planning and arrangements. All close contacts should not be allowed to travel internationally, unless this has been arranged in accordance with WHO advice for repatriation. Crew members may remain on board in quarantine if single occupancy balcony cabins are available in a designated quarantine area that has limited access, where precautionary measures can be closely monitored and controlled. Meals should be delivered outside of the door in the isolation or quarantine cabins without hand contact.

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

Facilities for temporary isolation⁴ on board should be pre-specified for symptomatic/asymptomatic/pre-symptomatic infected travellers with positive test results for SARS-CoV-2. Each person should be isolated in a separate cabin (one person-one cabin) with a private bathroom.

Isolation procedures should include disembarkation and different scenarios according to the expected number of persons to be isolated. Arrangements should be made with a local/national or national company or port agency along the routing. In these arrangements accommodations must agree to accept patients for isolation. The ship should remain in the same port until the test results are known or until the local public health service has advised on further measures. Any positive test result should be reported to the port authority and the public health service. Different scenarios with the expected number of persons to be isolated should be considered (e.g. a single case with contacts or several cases with their contacts) and included in the planning and arrangements.

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

River cruise ship operators should contract a shore-based laboratory. The arrangement with the laboratory should be made with an agency or directly with a laboratory along the route.

Adequate capacities for test kits and equipment for collecting specimens to be tested should be available at ashore facilities or on board. When the river cruise ship operators have decided to enable on board testing, the following applies:

⁴ Isolation: separation of ill or contaminated persons or affected baggage, containers, conveyances, goods or postal parcels from others in such a manner as to prevent the spread of infection or contamination.

- A predetermined testing location is designated on board.
- The method of testing is approved in the competent country.
- Testing is carried out by trained crew members who are allowed to perform testing following national guidelines, or arrange professional teams to embark to perform tests.
- There is separate waste disposal of test material.
- Infection control methods are applied.

Testing advice is included in Annex 1.

3.8. 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 5.1. 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. All crew members should be aware of the contents of the contingency plan.

3.9. Commitment for immediate reporting to the next port of call of any possible case

An essential pre-requisite for resuming river cruise ship operations is the immediate reporting of any possible case of infection, including possible⁵ COVID-19 cases, to the next port of call by submitting a Maritime Declaration of Health (MDH), or if the country does not require it, then reporting must be done by other means of communication. Early detection and immediate reporting are key factors for preventing outbreaks of COVID-19 on board ships. Before river 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 (or otherwise nationally specified) of any possible case of infection, to the health authority at the next port of call.

It is suggested that EU MS competent authorities at the port level use the SHIPSAN Information System (SIS) to record health measures taken in response to possible or confirmed COVID-19 cases on board river cruise ships. In parallel, the authorities at central level (national IHR focal point) must always be informed by the authorities at local level.

3.10. Isolation and quarantine capacity on board river cruise ships

⁵ Possible case: any person with at least one of the following symptoms: cough, fever, shortness of breath, sudden onset of anosmia, ageusia or dysgeusia. Additional less specific symptoms may include headache, chills, muscle pain, fatigue, vomiting and/or diarrhoea (source: Case definition for coronavirus disease 2019 (COVID-19), as of 3 December 2020. <https://www.ecdc.europa.eu/en/covid-19/surveillance/case-definition>).

River cruise ship line operators should 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.

River cruise ship operators are advised to ensure they are able to individually and temporarily isolate or quarantine (in a single cabin) possible COVID-19 cases/contacts. The ship should have isolation spaces for 5% of the total persons on board. However, if at least 90% of the total persons on board are vaccinated against COVID-19 (full vaccination cycle has been completed), then the ship should have isolation spaces for 1% of the total persons on board.

Moreover, 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. Wherever possible, the river cruise ship operators should accommodate each crew member in a separate cabin, in order to reduce the risk of new infections.

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.

3.11. Focused inspection on COVID-19 prevention and control for resuming river cruise ship voyages

The competent authorities of each port may conduct focused inspections based on this advice before starting river cruise season. For the purpose of the inspection and to further facilitate the process, the inspectors may use a checklist developed by EU HEALTHY GATEWAYS. Inspections will be organised nationally in cooperation with the cruise ship operators. To avoid double inspections, the competent authorities could inform EU HEALTHY GATEWAYS about the dates of inspections, the port and the names of ships that inspection conducted and this list will be available upon request to the EU/EEA countries. Inspection results can be recorded in the SHIPSAN Information System and access can be given to the authorities in the ship itinerary in order to view, record and update inspection results.

4. Options for measures to prevent COVID-19 infectious passengers from starting holidays

4.1. Vaccination of passengers

Passengers should be advised as per county national COVID-19 vaccination policy. For example, family or public health or travel medicine doctors could advise travellers to be vaccinated at least two weeks prior to the voyage, in order to develop immunity before boarding the ship. 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. Vaccinated passengers should hold an official proof of vaccination and if asked, inform the medical staff on board and/or the public health authorities about their vaccination status. The

vaccine delivered should be included in the list of approved vaccines of an internationally recognized authority (i.e. EMA, WHO or US FDA). Any data kept by the ship operators should be handled in accordance with the relevant legislation for personal data protection. The European Commission proposed creating a 'Digital Green Certificate' to facilitate safe free movement inside the EU during the COVID-19 pandemic. The 'Digital Green Certificate' is designed as proof that a person has been vaccinated against COVID-19, received a negative test result or recovered from COVID-19. This Certificate will be used for travelling once it is adopted (4).

4.2. Diagnostic testing or other measures in accordance with the requirements for incoming travellers to the country of embarkation

Diagnostic testing requirements are described in Annex 1.

4.3. Exclusion policy

River cruise ship operators should develop an exclusion policy with regard to COVID-19 and inform the travelling public about the policy through their travel agents, travel companies, river cruise ship 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. Symptomatic and potentially exposed passengers should not be accepted to travel, as is in place for air travel. In this respect, the following person would not be accepted on board river cruise ships: a) any person experiencing symptoms compatible with COVID-19, b) anyone who meet the definition of a "contact", c) anyone who test positive for SARS-CoV-2 by RT-PCR⁶ or a 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/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf (5)) as part of the pre-travel testing and/or day of embarkation testing.

4.4. High risk groups

As long as the pandemic continues, special precautions may be applied to passengers and crew belonging to high risk groups. Passengers 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 advised to be vaccinated before travelling. Crew members in high risk groups could work in positions where there is little or no interaction with other individuals and could be given priority/offered/ facilitated vaccination. Moreover, advanced respiratory protection (e.g. filtering face-piece class 2 or 3 (FFP2/FFP3) face masks⁶) could be prioritized for use by crew members

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

belonging to high risk groups (if respirators are available for use by the public and if sufficient supplies of respirators are available after prioritization for use in healthcare settings).

4.5. Exclusion policy information

River cruise ship 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 river cruise ship. Moreover, relevant information could be shared directly with passengers via email, text message, mail, website or other means of communication.

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

5.1. 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, at pre-arrival, at the terminal, on board, as well as the procedures in case of a COVID-19 event.

Each river 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 plan and records should be available for review for all crew working on board.

Training content for crew

River cruise ship operators should provide training and instructions to their crew regarding the recognition of the signs and symptoms compatible with COVID-19. Attention should be given to crew well-being.

Crew should also be instructed that if they develop symptoms compatible with COVID-19, they should not come to work. If symptoms develop while working, the crew should immediately self-isolate, wear appropriate personal protective equipment (PPE) such as a medical face mask and inform their designated supervisor/manager and medical staff immediately.

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>

Symptoms should be reported for both themselves and other crew members or passengers, if noted.

River cruise ship operators crew should be reminded of the procedures that should be followed when a passenger or a crew member displays signs and symptoms indicative 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 (e.g. monthly or bimonthly or as needed).

River cruise ship operators should also provide training and instructions to crew regarding physical distancing measures, managing crowds, respiratory etiquette, use of face masks⁷ (respirators, medical mask or non-medical “community” mask with), strategies to improve face mask fit/, ventilation in closed rooms, use of other PPE, as well as protocols for cleaning and disinfection (see Annex 2 for PPE donning and doffing techniques).

Ship operators or their representatives should ensure that crew who visit or stay in local areas at the various destinations are 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.

If tests are to be performed on board by ship crew, dedicated trained crew is able to carry out testing for SARS-CoV-2, as well as storage and transport of the samples.

Information and communication to passengers

River cruise ship operators, 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, and the importance of preventive measures should be provided together with bookings. To support on board preventive measures, river cruise ship operators 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 recently (within the previous 14 days)

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.

Non-medical face masks (or “community” mask): include various forms of self-made or commercial masks and face covers made of cloth, other textiles or other materials (e.g. paper). They are not standardised and not intended for use in healthcare settings or by healthcare professionals. (ECDC. 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> The European Committee for Standardization (CEN) published Workshop Agreement guidelines (CWA 17553) on minimum requirements for non-medical “community” masks (https://www.cencenelec.eu/research/CWA/Documents/CWA17553_2020.pdf). Other standardization organizations have also published standards for non-medical “community” masks.

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 testing prior to travel/embarkation;
- if passengers or crew have been vaccinated, then it is advised to 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 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 who are not fully vaccinated for COVID-19;
- recommendation for passengers over 60 years of age to consult with their medical care provider to obtain advice on their ability 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 river cruise ships at the destination (e.g. physical distancing, when or where use of face masks is required, disembarkation) (6);
- the need to immediately report to river cruise ship crew if passengers develop respiratory symptoms during travel, including means of reporting to crew (e.g. providing dedicated number or location to contact), crew will then inform the designated officer for the 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.

5.2. Contingency planning on board

Operators of river 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
- Ventilation of indoor areas
- Health monitoring of symptoms for river cruise ship crew, and when applicable passengers through daily contactless temperature measurements or self-checks and record keeping
- 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
- 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

- Interview of cases (in cooperation with public health authorities or by trained crew)
- 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
- 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 psycho-social support.

5.3. Supplies and equipment

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

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*).

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. Facilities used to accommodate ill persons on board should be arranged to provide capacity for separation of infectious and non-infectious patients.

6. Crew vaccination and testing

6.1. Vaccination of crew members

It is recommended that all crew members be vaccinated against COVID-19. Currently, crew members may be vaccinated in accordance with their national vaccination programme. Crew members, 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 (7). Vaccination of crew for ships sailing in EU MS should be legally acquired from official sources. Vaccinated crew members should hold an official proof of vaccination and inform their employer about their vaccination status. The vaccine delivered should be included in the list of approved vaccines by an internationally recognized authority (i.e. EMA, WHO or US FDA). Records of crew members who have received vaccination, including names and dates, should be kept in order to help in decision making regarding public health measures during a potential outbreak situation. Any data kept by the ship operators or the medical doctor

responsible for occupational or other medical issues on board should be handled in accordance with the relevant legislation for the personal data protection.

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

Diagnostic testing requirement are described in Annex 1.

6.3. Routine testing of crew members

Diagnostic testing requirement are described in Annex 1.

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

7.1. 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 will be quarantined or isolated and treated, respectively.

Pre-boarding screening can 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) (8-10). Those travellers may not be detected and therefore may still board the ship.

Pre-boarding screening measures are generally conducted as a two-step process: primary screening and secondary screening (11, 12). Primary screening includes pre-boarding diagnostic testing. This should be supported by completion of a health screening questionnaire, 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. A Passenger Locator Form could be completed the day of embarkation and updated if needed on the day of departure. 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 recommended and be carried out by personnel with public health, medical or tailor-made training. This includes observing travellers for any signs of infectious disease (depending on the outcome of secondary screening, the actions described in paragraph 9.1 will be followed). Upon re-boarding of the river cruise ship, health screening assessing the presence of COVID-19 symptoms or other relevant illnesses is carried out. Contactless temperature measurements may be conducted and

a more in-depth medical questionnaire can be used. A standard policy should be implemented for denial of boarding to any exposed or symptomatic possible case among passengers and crew.

7.2. Diagnostic testing of passengers the day of embarkation

Diagnostic testing requirements are described in Annex 1.

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

8.1. Health monitoring

A specific location on board is reserved for medical and testing operations. This could be a passenger cabin.

Routine on board health monitoring for all crew and other shore side staff can help with early detection of symptomatic COVID-19 cases. Daily contactless temperature measurement or self-check measurement and immediately reporting to supervisors of any mild or severe symptoms compatible with COVID-19 is of high importance. Any crew with a temperature at or above 38°C should immediately self-isolate, be provided with appropriate PPE (e.g. medical face mask) and inform their designated supervisor/manager and medical staff. In the event of a possible COVID-19 case on board, the frequency of contactless temperature measurement of crew may be increased (e.g. to twice per day). However, body temperature measurement should be considered as an additional layer of measures applied, which has its own limitations: not all COVID-19 cases will have fever; incubating patients will not present with fever and fever can be masked with antipyretics.

Daily contactless temperature measures or self-checking for all passengers may also be conducted to support early detection of symptomatic COVID-19 cases. Any passenger with a temperature at or above 38°C should immediately self-isolate, report symptoms to medical staff for further evaluation and be provided with appropriate PPE (e.g. medical face mask). In the event of a possible COVID-19 case on board, the frequency of contactless temperature measurement may be increased (e.g. to twice per day).

8.2. Physical distancing

Physical distancing of at least 1.5 metres should be maintained at waiting areas and during boarding at transport stations, by adopting special markings and controlled entry measures. In addition to physical distancing measures practiced on board, the use of face masks should be required (please see Annex 2). One-directional flow of passengers should be implemented if possible.

River cruise ship crew could oversee the process and compliance with physical distancing measures to avoid crowding. Operating procedures could be implemented to control the flow of passengers.

Special floor markings could be considered at all possible traveller congestion points, such as ticket offices, passenger services, bars, restaurants, shops, entertainment areas and shared toilets to ensure physical distance is maintained.

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.

During embarkation/disembarkation, several gangways should be used if possible to avoid crowding of passengers.

Where there are permanent non-moving seats either indoors or outdoors, there should be special markings on where a passenger is and is not allowed to sit, in order to maintain physical distance.

8.3. 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. Furthermore, glove use may provide a false sense of security.

Stations with alcohol-based hand rub solutions should be available at all entrances/gangways to the ship and in other areas such as elevators, check-in areas, entertainment venues, casinos, bars and restaurants.

River cruise ship operators should provide information to passengers and river cruise ship crew on hand hygiene related issues, and where necessary the appropriate facilities and equipment (13):

- 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, or elbow crease
- Avoid touching with hands the eyes, nose or mouth
- Appropriate waste disposal

- Proper use and storage or disposal of face masks (medical masks and non-medical “community” masks)
- Avoiding close contact with people suffering from acute respiratory infections

8.4. Respiratory etiquette

Respiratory etiquette should be advised: 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 river cruise ship (e.g. tissues or paper towels, 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.

8.5. Preventing droplet transmission by the use of face masks

River cruise ships are semi-closed environments with common areas that may allow extended periods of close contact between people. As described in Annex 2, crew members and passengers should use medical face masks (and that strategies to improve fit⁸). High protection face masks (e.g. FFP2 standard) could also be considered for crew members and passengers if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings.

Given limited availability of respirators, their use should be prioritized considering:

- Setting and job position: prioritized for health care workers, medical personnel or those providing direct care to a possible or confirmed COVID-19 case.
- Vulnerability of wearer: use of respirators if available for use by the public could be prioritized for crew members and passengers belonging to high-risk groups for severe COVID-19 complications or those that have not been vaccinated against SARS-CoV-2

Further details about strategies that can be used by crew members to improve face mask fit can be found here: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/mask-fit-and-filtration.html>

In accordance with the prioritization above, face masks should be used by all crew members at all times 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

⁸ Strategies to improve mask fit include using masks with nose wires, using mask fitters/braces, using a knotting/tucking technique, or double masking: wearing a second mask on top of a first mask (to create a “double mask” wear a medical procedure mask underneath a cloth mask. Do not combine two medical procedure masks to create a “double mask”). (Centers for Disease Control and Prevention. Improve the Fit and Filtration of Your Mask to Reduce the Spread of COVID-19. 6 April 2021. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/mask-fit-and-filtration.html#double-mask>)

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 must be used by passengers at all times in all areas on board when exiting/outside of their cabins (for example, exceptions include during eating or drinking, seated on sunbeds, swimming or doing other activities where the mask would get wet, in which case physical distancing should still be practiced, indoors and outdoors. Crew members and passengers must use a medical face mask in any public indoor space and any public outdoor space on the ship, in addition to maintaining physical distancing. Exceptions may be allowed for the use of medical face masks outdoors where this is not required by the health authorities. However, they must be worn outdoors if physical distancing cannot be maintained. When crew members and passengers are ashore they should follow the rules of each country.

An overview of recommended PPE for crew and passengers on board river cruise ships (in the context of lifting restrictive measures in response to the COVID-19 pandemic) can be found here: <https://www.healthygateways.eu/Novel-coronavirus>

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

Crew members could be present in areas around the ship, particularly where physical distancing is difficult to maintain, to monitor passenger compliance with proper use of face masks.

Information about the correct use of face masks should be provided to passengers via audio messages, leaflets, TV, infographics, websites or electronic posters etc. and at the terminal stations.

8.6. Adequate ventilation

The minimum required air changes per hour for each space on the ship will 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 will be functional and operate continuously.

If technically possible, all of the air handling units (AHUs) should be switched from recirculation to 100% outside air by closing the recirculation dampers (via the Building Management System or manually). This decision should be taken after consultation of the manufacturer and considering the cooling and heating capacity of the system.

8.7. Cleaning and disinfection

Enhanced cleaning and disinfection will 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)”.

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?ver=2020-04-21-154731-953

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 areas of the ships.

8.8. Special considerations for cabins

Between check out and check in, 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). It is advised that any item that cannot be cleaned between cabin occupancies should be removed from the cabin (e.g. shared multiple use items such as menus, magazines and other objects that cannot be disinfected, coffee or tea packaging, certain mini bar products etc.).

Moreover, it is recommended to remove equipment and products from the cabin, which are not offered from a dispenser or cannot be disinfected between occupancies. It is preferable that the above devices or mini bar products be made available upon a passenger's request, so that their disinfection is ensured. The mini bar can be used as a refrigerator by passengers and should be disinfected after each check out.

A disposable cover should be placed on the TV and the air-conditioning remote controls to facilitate proper disinfection, unless these items can be easily and adequately cleaned.

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

During occupancy of a cabin by the same passenger/passengers, clothing and towels should be changed upon a passenger's request or routinely, but it is recommended that instead of routine changes are made less frequent than normal (e.g. avoid changing of towels twice daily).

Passengers should be encouraged to open outside doors and windows.

It is recommended that individual alcohol-based hand rub solutions are placed in each cabin, which passengers can carry with them when moving outside of the cabin.

Specific guidance 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?ver=2020-04-21-154731-953.

8.9. 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](http://www.shipsan.eu/Home/EuropeanManual.aspx)” 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.

It is recommended that self-service food operations which are not touchless are avoided, and if this is not feasible, these facilities can operate only if additional specific hygiene management precautions are implemented as described in the following paragraphs. It is preferable that food is delivered by crew to passengers in closed packages or wrapped when it is delivered.

Disposable/single portion packages salt, pepper and other relevant containers should be used unless these containers can be cleaned between uses. Cutlery, plates, trays, napkins, soft drinks, straws etc. should be handed by crew to the passengers; the passengers should not collect these items themselves.

Physical distance should be maintained 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 recommended to limit food service provided in public areas of the ship. 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. A distance of 1.5 metres between chairs of different tables must be maintained.

It is also recommended when feasible that crew and passengers are divided into cohorts (designated groups) and are served food at different times to limit interactions. In addition, limiting seating capacities in dining areas or using reservations to control passenger crowds could be implemented. The duration that restaurants are open could be extended to allow the rotating attendance of passengers in cohorts. The frequency of food service could also be increased to limit crowding and ensure physical distancing is maintained.

Special care should be taken to keep physical distances of 1.5 metres 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 2). 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 must 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. Restaurant linen should always be changed between passengers.

If it is not possible to avoid buffet service (especially in the crew food service area), then the following precautions should be used:

- At the entrance of the buffet area passengers and crew should be provided with an alcohol-based hand rub solution, and crew should ensure that passengers or crew disinfect their hands.
- The required physical distance should be maintained at all times in the service area.
- Self-service should not be allowed
- If buffets are wall mounted or of island type construction, stanchions should be put in place at 1.5 metres to restrict passengers'/crews' direct access, and assisted services should be offered by designated crew wearing disposable aprons, medical masks, face shield and disposable gloves.
- Only the designated crew should be allowed to serve food. Crew serving food should wear appropriate PPE (face masks, disposable gloves) and should follow strict hygiene rules. Under no circumstances should crew or passengers who will be served food use any commonly shared utensils or other items. These should be removed from the service so that only a designated crew can distribute them.
- Self-service of dispensed items, plates, cutlery and utensils should not be allowed. Food handlers should serve any dispensed items (for example water, coffee, juice etc.). Food handlers should wear appropriate PPE (face masks, face shields) and follow strict hygiene rules.

Complimentary coffee stations could be open for self-service provided that the hand contact parts are cleaned by a crew member after each use.

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 warewashing 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 not enter the cabin, but rather deliver food to the door in a way which avoids hand to hand contact. Likewise, used plates and utensils should be collected by crew from outside the door.

8.10. Reception, bookings, orders and purchases

On-line bookings, orders and purchases and the use of contactless cards for payments should be encouraged. 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).

Where face-to-face interaction without physical distancing between crew and passengers cannot be avoided, then protective screens or barriers may be used instead where feasible, or face shields with face masks could be worn.

All non-essential face-to-face employee meetings, group events (such as employee non-essential trainings), or social gatherings should be cancelled. 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.

Alcohol-based hand rub solutions should be available for use by passengers at the reception desk.

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.

Regular cleaning of reception desks/counters is recommended. Key cards should be cleaned (see paragraph 8.7).

In order to maintain appropriate physical distancing, the river cruise ship should configure the reception desk, add deck markings at distances of at least 1.5 metres where passengers will stand/proper distance marking in the waiting area, properly arrange furniture and manage the queue to reduce waiting times and avoid crowding.

Crew should monitor and encourage compliance with good hand hygiene in this area as well as proper use of face masks. Reception may be able to provide PPE when requested.

8.11. Public spaces and facilities

Public spaces should be supplied with hand rub alcohol-based solution stations for the passengers. At waiting areas, physical distancing of at least 1.5 metres is maintained. There should be special floor marking at all possible congestion points. Preferred one-way routing is indicated.

Furniture should be arranged in such a way to help avoid overcrowding in shared spaces (4 persons/10 m²).

Public spaces should be supplied with hand rub alcohol-based solution stations. Crew members should monitor compliance of hand hygiene

It is preferred to open shops by appointment only. Shoppers are encouraged not to handle items on display and clothes are not tried on.

Electronic payments, cleaning should be followed in all public spaces and facilities on board river cruise ships.

8.12. Nursery and play areas for children

It is preferable to operate the outdoor children's play areas only or maximise their use. If this is not possible, the number of children using the indoor areas should be reduced to levels which help staff maintain physical distancing. The areas should be cleaned 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>

Crew members and any other person over 6 years of age in indoor and outdoor children's play areas should wear a medical face mask or high protection face masks (e.g. FFP2 standard) if available for use by the public and sufficient supplies are available after prioritization for healthcare settings). If unavailable a non-medical "community" mask with multiple layers of tightly woven, breathable could be used. Strategies to improve the medical or non-medical mask fit could be considered.

The number of children in the outdoor children's play areas/playgrounds may also be limited at one time.

8.13. Hairdressers beauty salons and gyms

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](http://www.shipsan.eu/Home/EuropeanManual.aspx)" available here <http://www.shipsan.eu/Home/EuropeanManual.aspx>.

The operator should prevent overcrowding of the shared facilities and ensure adequate ventilation. Operating procedures whenever possible should include:

- Pre-booking systems.
- Timed appointments.
- Record keeping.

The gym operating capacity should be restricted using a ratio of 1 person per 10 m² per usable floor surface space and the maximum operating capacity posted on signs at the entrance.

- Operating procedures should be used to manage occupancies and avoid queues whenever possible including using:
 - Pre-booking systems.
 - Timed appointments.
 - Staggered and extended service times to help control the flow of individuals.
- Physical distancing must be maintained between users:
 - ≥1.5 metres apart, or
 - A greater distance where required by health authorities.
- A sign-in and out system should be established to manage occupancy and contact tracing.

- Showers, lockers and changing rooms should be closed. However, gym users may still have access to any toilets located in the changing rooms.
- Provide appropriate floor markings, stickers, barriers or stanchions and signage to help manage physical distancing, the flow of people and maximum capacities. Consider using one-way systems for any small spaces.
- Equipment should be placed at least 1.5 metres apart, with a greater distancing for treadmills and other high-exertion aerobic fitness equipment where feasible.
 - Equipment can be arranged in an “X” pattern to help provide greater distancing.
 - Equipment that cannot be moved should 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 allowed to perform high-intensity exercise only outdoors.
- Indoor gym users are required to wear a face mask at all times
- Gym users should be asked to clean or 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 guest occupancy, traffic flows, wearing of face masks/shields, 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.

8.14. Potable water

In case the potable water system of the river 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 river 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.

8.15. Recreational water facilities

The showers for the outdoor recreational water facilities should be separated, in order to facilitate the efficient showering of the bathers before they enter the pool.

The maximum allowable number of bathers at any time in the swimming pools should be one bather per 4 m² of water surface, regardless of the depth of the pool. Small hot tubs (with depth less than 1 m and tub volume less than 6 m³) should be used only by bathers of the same household or by bathers staying in the same cabin at a time. For larger spa/hydrotherapy pools (with depth more than 1 m and tub volume more than 6 m³), the maximum bather load is one person per 20 L per minute of recirculation flow (as per the [“European Manual for Hygiene Standards and Communicable Disease Surveillance on passenger ships”](#)); in any case, the total number of co-bathers should not exceed one bather per 4 m² of water surface.

In case the recreational water facilities of the river cruise ship has not been operated as per the European Manual standards, or the river 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.

8.16. Port visits, shore based activities and excursions

Alcohol-based hand rub solutions should be made available at gangway exits, and all persons who disembark and re-embark the river cruise ship should be requested to use them. At all times during embarkation, disembarkation and during shore-based activities or excursions medical face masks (or respirators if available for use by the public and sufficient supplies are available after prioritization for healthcare settings) should be used. If unavailable a non-medical “community” mask with multiple layers of tightly woven, breathable fabric could be used. Strategies to improve the medical or non-medical mask fit/filtration could be considered as described in Annex 2.

EU MS, river cruise ship operators 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.

River cruise ship operators should check that external excursion and tour providers offer similar precautions as on board, including physical distancing measures, use of PPE, and cleaning and disinfection protocols, while also following any local/national health regulations. Any external provider who interacts with passengers (such as tour guides) should follow river cruise ship operator’s protocols (e.g. for health screening). The national guidelines should serve as a minimum standard.

While travelling in groups, it should be ensured that passenger groups maintain physical distance from other tour groups.

River cruise ship operators 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.

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

9.1. Management of a possible case

Following a preliminary medical examination, if the ship's designated officer determines that there is a possible case of COVID-19 on board⁹, the patient should be isolated in an isolation ward, cabin, or quarters and infection control measures continued until they are disembarked and transferred to an isolation facility or a hospital ashore. River cruise ship operators should designate single cabins to be used specifically for isolation of cases on board. The designated

⁹ 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>

cabins should be located near the ship's dedicated medical facility or near the end of a passenger corridor and if possible, have windows to promote appropriate air exchange. 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 2**. 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 evacuated/disembark.

Further advice, including the definition of a possible case, management of possible cases and use of the Passenger/Crew Locator Forms (PLFs) can be found in the EU HEALTHY GATEWAYS Advice for 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 river cruise ships will be implementing measures for early detection of COVID-19 possible cases)¹⁰.

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

9.2. Management of contacts

River cruise ship operators should designate single cabins to be used specifically for temporary quarantine of close contacts on board until disembarkation at the home/contingency port as described in the EU HEALTHY GATEWAYS "Advice for 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 made to support those with special needs.

Management of contacts should be in accordance with the national policies of the port of disembarkation and as detailed in the contingency plan/outbreak management plans of the river cruise ship and the port. Advice for management of contacts and use of the Passenger/Crew Locator Forms (PLFs) in **Annex 4** can be found in the EU HEALTHY GATEWAYS "Advice for ship operators for preparedness and response to an outbreak of COVID-19", available at: <https://www.healthygateways.eu/Novel-coronavirus>

9.3. Embarkation/disembarkation

If a cluster or an outbreak occur on board, 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.

¹⁰ <https://www.ecdc.europa.eu/en/publications-data/strategies-surveillance-covid-19>

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

9.4. Reporting

In accordance with the International Health Regulations (2005), the officer in charge of the river cruise ship operators must immediately inform the competent authority at the next port of call about any possible case of COVID-19²¹.

For ships on international voyage, the MDH must be completed and sent to the competent authority in case of any symptomatic passenger or crew member, or at any port that does require submitting.

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.

10. Testing policy and non-pharmaceutical measures for travellers (passengers and crew members) vaccinated or recovered from COVID-19

Currently, due to the lack of evidence whether individuals vaccinated or recovered from COVID-19 can be infectious, vaccinated travellers or travellers who have recovered from COVID-19 should not be excluded from the testing policy, or from implementing non-pharmaceutical measures (use of face masks, physical distancing etc.). This recommendation will be updated regularly taking into consideration any new evidence (14, 15).

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.^{11,12} 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.

¹¹ 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>

¹² 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>

Passenger/Crew Locator Forms could be disseminated before boarding or during boarding and collected by river cruise ship crew prior to disembarkation. Electronic completion of Passenger/Crew Locator Forms before boarding could be used as well. 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 river cruise ships, which are also available from the EU HEALTHY GATEWAYS joint action website here: <https://www.healthygateways.eu/Translated-Passenger-Locator-Forms>.

Passenger/Crew Locator Forms for ships must also be completed by all crew members who disembark for their long term leave.

Other means of contact tracing to identify and inform passengers of possible exposure may be employed by river cruise ship operators, 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. Data protection laws of the countries should be considered.

Annexes

Annex 1: Diagnostic testing of passengers and crew members

National policies should be considered for diagnostic testing of passengers and crew. In addition to the national policies, EU polices and the following advice from EU HEALTHY GATEWAYS should be also considered for diagnostic testing.

1.1. Diagnostic testing of crew members

1.1.1. Before resuming operations and incoming crew members

Before resuming operations, river cruise ship operators should perform RT-PCR¹³ for SARS-CoV-2 to all crew members that are already on board the river 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, as described in the EU HEALTHY GATEWAYS advice “Advice for 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 RT-PCR¹³, within 72 hours before arrival on the river cruise ship. Only those with negative test results will be allowed on board the river cruise ship.

All crew should undergo a RT-PCR¹³ or RADT the day of embarkation. The type of the rapid antigen diagnostic test should be 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/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf (5)).

Incoming crew members coming from non-EU countries should be quarantined ashore for 10 days and then be tested with RT-PCR¹³ at the end of the quarantine. The rest of the incoming crew should be quarantined and tested according to the national public health authority regulations of the contingency port country. After their quarantine ends and if the test results are negative they can start their regular work schedule on board the river cruise ship, provided that the additional diagnostic test (RT-PCR¹³ or rapid antigen test) conducted the day of embarkation is also negative.

¹³ RT-PCR or other Nucleic Acid Amplification Test (NAAT) could be conducted, 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>

1.1.2. Routine diagnostic testing of crew members

Once on board and working in a regular work schedule, crew members should be tested with RT-PCR¹³ or RADTs every 7 days. Local policies for additional routine self-tests could be applied (e.g. twice a week). The type of rapid antigen diagnostic test should be 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 RADTs test result certificates”, https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf (5). This practice 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.).

In the event that a case of COVID-19 is identified among the crew members except from incoming crew members that are in quarantine on board the ship), 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 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 river cruise ship should be tested with RT-PCR¹³ or RADTs antigen tests as soon as possible, in accordance with the risk assessment conducted as part of the contact tracing process. Depending on results of the risk assessment, it could be decided to conduct tests not only on close contacts, but also on low risk contacts.

1.2. Diagnostic testing of passengers

1.2.1. Diagnostic testing or other measures in accordance with the requirements for 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. For example, this could be testing within 72 hours before arrival on the river cruise ship with RT-PCR¹³ or RADTs (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/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf (5)). Only those with negative test results will be allowed on board the river cruise ship.

1.2.2. Diagnostic testing of passengers the day of embarkation

All passengers (except from children under the age of 6 years) should undergo an RT-PCR¹³ or RADT the day of embarkation. If a RADT will be conducted, the type of RADT should be 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/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf (5)).

1.2.3. Diagnostic testing of passengers during the cruise

All passengers should undergo a RT-PCR¹³ or RADT the third or fourth day of the cruise. If RADT will be conducted, the type of RADT should be 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/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf (5).

Annex 2: Overview of suggested personal protective equipment (PPE) on river cruise ships

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

River 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 river cruise ships (16).

Examples of public health measures that can be applied in all workplace settings include (17, 18):

- 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 and ensuring medical face masks are available in case a crew member or passenger develops symptoms compatible with COVID-19
- Encouragement of physical distancing of at least 1.5 metres. 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.)
- Ensure a supply of medical face masks are available in the event a crew member or passenger on board develops symptoms compatible with COVID-19
- Ensure a supply of face masks are available, and provide information on proper face mask management (e.g. use, storage and cleaning or disposal)
- Ensure 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 PPE and face masks presented in this Annex

Personal protective equipment (PPE)	Protection offered
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<p>High protection face mask (respirator) e.g. class 2 or 3 filtering face-piece (FFP2/FFP3)</p>	 ©ECDC	<ul style="list-style-type: none"> • Protects wearer against inhalation of droplets and small airborne particles, including aerosols • Requires proper fitting • Primarily used by health care workers, particularly during aerosol-generating procedures • Comply with requirements defined in European Standard EN 149:2001+A1:2009
<p>Medical face mask (surgical or procedural mask)</p>	 ©ECDC	<ul style="list-style-type: none"> • Protects against exhaled droplets when worn by ill patient • Protects the user against potential large infective respiratory droplets • Medical device that does not require fit-testing but require proper fitting • Comply with requirements defined in European Standard EN 14683:2014
<p>Other</p>		<p>Protection offered</p>
<p>Non-medical face mask ("community mask")</p>		<ul style="list-style-type: none"> • Manufactured or homemade masks and face covers (made of cloth, textiles or other materials) • Cannot be considered PPE or medical device and are not standardized • In case of severe PPE shortages and if medical masks are not available, cloth masks are suggested as a last-resort • Not intended for use by healthcare workers

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>)

General considerations for use of face masks (medical and non-medical "community" masks) (19, 20)

- 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 wearing 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 and disposed of safely (e.g. in a closed bin or bag) immediately after removing, followed by hand hygiene.
- Reusable face masks should be removed and placed in a clean plastic re-sealable bag until cleaned. They should be laundered after each use as soon as possible, using common detergent, hot water (at least 60°C) and dried completely. Laundering face masks should not change the fit or damage the mask.

- Non-medical “community” masks (manufactured or homemade) should be constructed of multiple layers of tightly woven fabric that allows the wearer to breathe comfortably without restriction.
 - Manufactured non-medical “community” masks:
The European Committee for Standardization (CEN) published Workshop Agreement guidelines on minimum requirements for non-medical masks (available here: https://www.cencenelec.eu/research/CWA/Documents/CWA17553_2020.pdf) as have other standardization organizations. Considerations regarding filtration, breathability and fit of manufactured non-medical masks can also be found here: [https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak)
 - Homemade non-medical “community” masks:
Guidance on recommended materials and how to construct a homemade non-medical mask can be found at the following: [https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak) and <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-make-cloth-face-covering.html>
- 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. Masks should **not** have exhalation valves, slits or be damaged in any way (wearers should inspect the mask before putting on).
- To improve the fit of face masks, strategies exist to reduce any gaps between the wearer’s face and the face mask. These strategies include: using fitters and braces over a face mask, choosing face masks that have nose wires, using a knotting/tucking technique, or possibly “double masking”¹⁴. Further details and considerations for improving the fit of face masks can be found here: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/mask-fit-and-filtration.html>
- 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>

¹⁴ Wearing a second mask on top of a first mask (to create a “double mask”): wear a medical procedure mask underneath a cloth mask. Do not combine two medical procedure masks to create a “double mask.” Medical procedure masks are not designed to fit tightly and wearing a second medical procedure mask on top of the first medical procedure mask does not help to improve the fit. (Centers for Disease Control and Prevention. Improve the Fit and Filtration of Your Mask to Reduce the Spread of COVID-19. 6 April 2021. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/mask-fit-and-filtration.html#double-mask>)

- 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 from others.

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>).

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 outside of individual cabins or working with other crew members (e.g. in public spaces, service areas etc.)	Medical mask^a OR Properly fitting respirator (FFP2)^b
	Crew members off duty and 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	If unavailable a non-medical “community” mask^a Frequent hand hygiene



©ECDC

OR



©ECDC

If above unavailable:



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

^b Respirators could be considered if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings. Respirators must be prioritized for healthcare workers/medical personnel, especially during aerosol-generating procedures

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
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Passengers	Anytime outside of cabin, regardless of whether physical distancing of 1.5 metres can be maintained	<p>Medical mask^a OR Properly fitting respirator (FFP2)^b</p> <p>If unavailable a non-medical “community” mask^a</p>	 ©ECDC OR  ©ECDC If above unavailable: 
		Frequent hand hygiene	

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

^b Respirators could be considered if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings. Respirators must be prioritized for healthcare workers/medical personnel, especially during aerosol-generating procedures

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 should be used. Exceptions include during eating, drinking, seated on sunbeds, when swimming or doing other activities where the mask would get wet.

When passengers are interacting with their family unit or travelling unit (e.g. cohabitants) within their cabin, no face mask is recommended.

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	<p>Properly fitting respirator (FFP2) <i>If not available</i></p> <p>Medical face mask</p>	 ©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 river cruise ship where respiratory protection is strongly recommended to be required by crew members and passengers

WHO	WHEN	WHAT
Crew members and Passengers	<p>All areas outside of individual cabins on board regardless of whether physical distance of 1.5 metres can be maintained</p> <p>Examples of settings include: Walking/passing in narrow corridors on board In elevators on board In entertainment venues, dining areas, reception areas, spas/hairdressers</p>	<p>Medical mask^a OR Properly fitting respirator (FFP2)^b</p> <p>If unavailable a non-medical “community” mask^a</p>  <p>©ECDC</p> <p>OR</p>  <p>©ECDC</p> <p>If above unavailable:</p> 
Frequent hand hygiene		

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

^b Respirators could be considered if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings. Respirators must be prioritized for healthcare workers/medical personnel, especially during aerosol-generating procedures

There are certain settings on board as outlined in Table 5 where the use of respiratory protection is strongly recommended to be required for both crew members and passengers.

Face masks should be required by crew members and passengers at all times on board when outside of individual cabins, regardless of whether a physical distance of 1.5 metres can be maintained (exceptions include during eating, drinking, drinking, when seated on sunbeds, when swimming or doing other activities where the mask would get wet).

Table 6: Other settings where respiratory protection is strongly recommended to be required

WHO	WHEN	WHAT
Crew members and Passengers	<p>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</p> <p>Examples of settings include: When entering and on the premises of the terminal station During embarkation at the terminal station On buses during transport During disembarkation During on-shore activities /excursions</p>	<p>Medical mask^a OR Properly fitting respirator (FFP2)^b</p> <p>If unavailable a non-medical “community” mask^a</p>  <p>©ECDC</p> <p>OR</p>  <p>©ECDC</p> <p>If above unavailable:</p> 
Frequent hand hygiene		

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

^b Respirators could be considered if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings. Respirators must be prioritized for healthcare workers/medical personnel, especially during aerosol-generating procedures

Table 6 describes situations where use of respiratory protection is strongly recommended to be required in areas outside the river 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 (21), 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)^b If unavailable a non-medical “community” mask^a	 © ECDC OR  © ECDC <u>If above unavailable:</u> 
		Frequent hand hygiene	

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

^b Respirators could be considered if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings. Respirators must be prioritized for healthcare workers/medical personnel, especially during aerosol-generating procedures

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 3: Pre-boarding health declaration questionnaire

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

NAME OF VESSEL	RIVER CRUISE SHIP OPERATORS	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:		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:		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?		
2. Have you, or has any person listed above, had close contact with anyone diagnosed as having coronavirus 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, visited or stayed in close proximity to anyone with COVID-19?		
5. Have you, or has any person listed above, worked in close proximity to or shared the same classroom environment with someone with COVID-19?		
6. Have you, or has any person listed above, travelled with a patient with COVID-19 in any kind of conveyance?		

7. 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 disembarkation requires it)?	<input type="checkbox"/> No <input type="checkbox"/> Pending results <input type="checkbox"/> Positive* <input type="checkbox"/> Negative	
2. Have you performed, the day of embarkation, a rapid test for COVID-19?	<input type="checkbox"/> No <input type="checkbox"/> Positive* <input type="checkbox"/> Negative	
3. Have you been vaccinated with all the necessary doses for COVID-19?	<input type="checkbox"/> No <input type="checkbox"/> Yes	

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

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 (<i>tour, team, business, other</i>)
(1)			
(2)			

To be completed by CREW only:

38. Working sector on board:

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39. Co-habitants in cabin:

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

Working group members

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For any questions or support related to the points of entry including ports, airports, ground crossings, please email info@healthygateways.eu

References

1. Kordsmeyer A-C, Mojtahedzadeh N, Heidrich J, Militzer K, von Münster T, Belz L, et al. Systematic Review on Outbreaks of SARS-CoV-2 on Cruise, Navy and Cargo Ships. *International Journal of Environmental Research and Public Health*. 2021;18(10):5195.
2. European Centre for Disease Prevention and Control. ECDC TECHNICAL REPORT - Contact tracing: Public health management of persons, including healthcare workers, having had contact with COVID-19 cases in the European Union - third update Stockholm: ECDC, 2020 18 November 2020. Report No.
3. World Health Organization. WHO - Prequalification of Medical Products (IVDs, Medicines, Vaccines and Immunization Devices, Vector Control) 2021. Available from: <https://extranet.who.int/pqweb/vitro-diagnostics/coronavirus-disease-covid-19-pandemic-%E2%80%94-emergency-use-listing-procedure-eul-open>.
4. European Commission. COVID-19: Digital green certificates 2021 [cited 2021 29 April]. Available from: https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/safe-covid-19-vaccines-europeans/covid-19-digital-green-certificates_en.
5. EUROPEAN COMMISSION DIRECTORATE-GENERAL FOR HEALTH AND FOOD SAFETY Public health ck, crisis management Health Security and Vaccination. EU health preparedness: A 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. Agreed by the Health Security Committee on 17 February 2021. An update to Annex II was agreed by the HSC on 19 March 2021. 2021.
6. European Centre for Disease Prevention and Control. Using face masks in the community: first update. Stockholm: ECDC, 2021 15 February 2021. Report No.
7. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL Preparedness for COVID-19 vaccination strategies and vaccine deployment (2021).
8. Nishiura H, Kamiya K. Fever screening during the influenza (H1N1-2009) pandemic at Narita International Airport, Japan. *BMC Infect Dis*. 2011;11:111.
9. Samaan G, Patel M, Spencer J, Roberts L. Border screening for SARS in Australia: what has been learnt? *Med J Aust*. 2004;180(5):220-3.
10. St John RK, King A, de Jong D, Bodie-Collins M, Squires SG, Tam TW. Border screening for SARS. *Emerg Infect Dis*. 2005;11(1):6-10.
11. World Health Organization. Technical note for Ebola virus disease preparedness planning for entry screening at airports, ports and land crossings. 2014.
12. World Health Organization. Handbook for management of public health events on board ships. 2016.
13. World Health Organization. WHO advice for international travel and trade in relation to the outbreak of pneumonia caused by a new coronavirus in China 2020 [updated 10 January 2020/1/2020]. Available from: https://www.who.int/ith/2020-0901_outbreak_of_Pneumonia_caused_by_a_new_coronavirus_in_C/en/.
14. World Health Organization. Interim position paper: considerations regarding proof of COVID-19 vaccination for international travellers COVID-19 Travel Advice 2021 [updated 5 February 2021]. Available from: <https://www.who.int/news-room/articles-detail/interim-position-paper-considerations-regarding-proof-of-covid-19-vaccination-for-international-travellers>.
15. European Centre for Disease Prevention and Control. Risk of SARS-CoV-2 transmission from newly-infected individuals with documented previous infection or vaccination. Stockholm: ECDC, 2021 29 March. Report No.
16. European Centre for Disease Prevention and Control. ECDC TECHNICAL REPORT - : Guidelines for the implementation of nonpharmaceutical interventions against COVID-19 Stockholm: ECDC, 2020 24 September 2020. Report No.
17. World Health Organization. Considerations for public health and social measures in the workplace in the context of COVID-19. Annex to Considerations in adjusting public health and social

measures in the context of COVID-19 [updated 10 May 2020]. Available from: <https://www.who.int/publications-detail/considerations-for-public-health-and-social-measures-in-the-workplace-in-the-context-of-covid-19>.

18. World Health Organization. Getting your workplace ready for COVID-19 [updated 3 March 2020]. Available from: <https://www.who.int/docs/default-source/coronaviruse/getting-workplace-ready-for-covid-19.pdf>.

19. World Health Organization. Mask use in the context of COVID-19. Interim guidance. 2020 1 December 2020. Report No.

20. European Centre for Disease Prevention and Control. Using face masks in the community. Stockholm: ECDC, 2020.

21. European Centre for Disease Prevention and Control. ECDC TECHNICAL REPORT. Considerations for infection, prevention and control measures on public transport in the context of COVID-19. Stockholm: ECDC, 2020 29 April 2020 Report No.