



**EU HEALTHY GATEWAYS JOINT ACTION**  
**GRANT AGREEMENT NUMBER: 801493**  
**PREPAREDNESS AND ACTION AT POINTS OF ENTRY**  
**(PORTS, AIRPORTS, GROUND CROSSINGS)**



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# **Interim advice for preparedness and response to cases of 2019- nCoV acute respiratory disease at points of entry in the European Union (EU)/EEA Member States (MS)**

## **Public health measures at points of entry**

### **Version 2**

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## Introduction

This interim advice was prepared after a request from the European Commission's Directorate-General for Health and Food Safety (DG SANTE). An ad-hoc working group was established with members from the EU HEALTHY GATEWAYS joint action consortium. Names and affiliations of the working group members are listed at the end of the document.

The advice is based on the currently available information (up to 3 February 2020) published by the World Health Organization (WHO) and the European Centre for Disease Prevention and Control (ECDC) in regards to epidemiology and knowledge about the 2019-nCoV acute respiratory disease, as well as advice previously published for Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS)-CoV infections<sup>1-4</sup>.

The scope of the advice provided in this document is to assist public health authorities in developing their short-term and long-term national and local preparedness plans. It further contains useful advice for the air and the maritime transport sectors.

This version of advice addresses issues of air and maritime transportation. There are also rail connections between China and Europe. The working group will address issues for ground crossings in the future version of the advice.

# 1. Strengthening measures at points of entry for detection of acute respiratory infection (ARI) due to the 2019-nCoV

## a. Strengthening measures for detection of ARI due to 2019-nCoV on board aircrafts arriving from affected area<sup>2</sup>

It is advised that EU MS identify the airlines operating direct or indirect flight connections with affected areas, as well as their flight schedules.

These airlines can be requested by EU MS: i) before landing in an EU airport, to arrange for completion of the Public Health Passenger Locator Form (PLF) for all travellers on board the aircraft arriving from affected areas, who have ARI symptoms during the flight and their contacts as described in the following paragraph (IHR 2005, Article 23)<sup>5</sup> (EU MS may decide to ask for completion of the PLF not only from symptomatic travellers and contacts, but from all individuals on board the aircraft), ii) to raise awareness of their cabin crew staff about the detection of ARI (fever and sudden onset of respiratory infection with one or more of the following symptoms: shortness of breath, cough or sore throat) among the travellers and finally, iii) remind their crew staff about the procedures for informing air traffic control that a suspect case of a communicable disease is on board, so that the public health authority at the destination can be advised in a timely manner (IHR 2005, Articles 28 and 38)<sup>5</sup>.

Symptomatic travellers and their contacts will disembark the aircraft according to instructions received from the competent authorities in order to minimize the risk of spreading the disease. Symptomatic travellers will be assessed for their condition and exposure at the designated facility of the airport and if they fulfil the definition of a suspect case, will be transferred to a hospital. Management of contacts will take place in accordance with instructions from the public health authority as described in paragraph 3.

### **Public Health Passenger Locator Form**

Completion of the PLF can be requested for the adult persons on board the aircraft arriving on a direct or indirect flight connection from an affected area, who have developed symptoms of ARI (fever or feeling feverish and sudden onset of respiratory infection with one or more of the following symptoms: shortness of breath/breathing difficulties, cough or sore throat)<sup>6</sup> and all other persons on board. EU MS may decide to ask for completion of the PLF not only from symptomatic travellers and contacts, but from all individuals on board the aircraft. The completed PLFs can be collected and delivered to the competent staff upon arrival at the airport.

The PLF has been developed by a working group established by WHO to facilitate rapid collection of passenger contact information that can be used for case investigation and contact tracing<sup>7</sup>. Information collected should be handled according to the legal framework for protection of personal data.

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<sup>2</sup> Affected areas are those defined by WHO as affected.

ECDC has published guidelines for contact tracing of passengers in the event that a case of MERS-CoV is identified and assessed to have been infectious during flight<sup>8</sup>. Guidance regarding contact tracing is also provided by the EU AIRSAN project in the document “Contact Tracing – Collaboration between the Public Health and the Aviation Sector”<sup>9</sup>. Guidance from ECDC about “Public health management of persons having had contact with novel coronavirus cases in the European Union” can be downloaded at the following link: <https://www.ecdc.europa.eu/en/publications-data/public-health-management-persons-having-had-contact-novel-coronavirus-cases>

The EU HEALTHY GATEWAYS joint action has gathered PLFs in different languages from the joint action consortium, as well as those posted in the CAPSCA website. The PLF in different languages can be downloaded at the following link:

[https://www.healthygateways.eu/Portals/0/plcdocs/Passenger\\_public\\_health\\_locator\\_forms.zip](https://www.healthygateways.eu/Portals/0/plcdocs/Passenger_public_health_locator_forms.zip)

The PLF can be completed in English or another language that persons of the authorities who will use the information in the completed PLF can understand.

### ***Health Part of the Aircraft General Declaration***

An EU MS can request the submission of the Health Part of the Aircraft General Declaration from aircrafts arriving from an affected area directly or through indirectly connecting flights from affected areas, when there is a suspected case of infectious disease on board the aircraft (IHR 2005, Article 38)<sup>5</sup>. The Health Part of the Aircraft General Declaration can be downloaded at the following link: [https://www.who.int/csr/ihr/Annex9\\_en.pdf](https://www.who.int/csr/ihr/Annex9_en.pdf)

### ***Educate cabin crew***

Crews should be trained to: a) recognise the signs and symptoms of ARI (fever and sudden onset of respiratory infection with one or more of the following symptoms: shortness of breath, cough or sore throat); b) understand hygiene measures that prevent the spread of ARI: hand washing, respiratory etiquette during coughing and sneezing, social distancing, waste disposal, use of respiratory masks, elimination of handshaking; c) recognise and report individuals with symptoms so that this information is sent to the next airport using the *Health Part of the Aircraft General Declaration*; d) properly use Personal Protective Equipment (PPE) such as masks and gloves.

### ***Equipment and supplies***

Aircrafts should carry universal precaution kits including as per International Civil Aviation (ICAO): dry powder that can convert small liquid spills into a sterile granulated gel, germicidal disinfectant for surface cleaning, skin wipes, face/eye mask (separate or combined), gloves (disposable) and a protective apron<sup>3</sup>.

## **b. Strengthening measures for detection of ARI due to 2019-nCoV on board ships arriving from affected area**

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<sup>3</sup> <https://www.icao.int/MID/Documents/2013/capsca-mid3/ICAOHealthRelatedSARPsandguidelines.pdf>

### **Maritime Declaration of Health**

EU MS are advised to require the submission of the Maritime Declaration of Health (MDH) from all arriving ships that have visited a port in China within the previous 30 days. Captains should be requested to note in the MDH the ports that have been visited in the affected areas and to report any case of disease which is suspected to be of an infectious nature, or report zero cases if there is no infection on board the ship, as required in the IHR 2005 Article 37<sup>5</sup>.

Surveillance of infectious diseases should take place on board at the ship hospital accommodation/medical centre. The competent authority of the next port of call must always be informed if a suspect case of an infectious disease or death has occurred on board (IHR 2005, Article 28)<sup>5</sup>.

### **Education, hygiene measures and supplies**

It is advised that EU MS identify the ships arriving from an affected area and request that the ship operators: a) raise awareness among crew about the detection of ARI; b) permanently keep ships free of sources of infection or contamination, in accordance with IHR 2005, Article 24<sup>5</sup>; and c) have available on board adequate medical supplies and equipment to respond to an outbreak as described in the WHO (2007) recommended medicines and equipment by the International Medical Guide for Ships 3rd edition.

### **c. Enhancing measures for detection of ARI due to 2019-nCoV at medical facilities at the point of entry (port and airport)**

Staff at the medical facilities and/or the public health authority staff of the point of entry should receive up-to-date information regularly about the 2019-nCoV acute respiratory disease (e.g. outbreak evolving, symptoms, epidemiology), so as to be alerted and consider the possibility of persons presented with ARI to have been exposed to an affected area of travellers who may seek medical advice at the medical facility.

Staff should be trained to implement the contingency plan at the point of entry and should be familiar with the communication plan, who to contact in case a suspected traveller fulfilling the epidemiological criteria has been identified and the Standard Operating Procedures (SOPs) included in the contingency plan should be followed.

WHO advises that the suspect patient should be asked to wear a surgical mask as soon as they are identified and be evaluated in a private room with the door closed, ideally in the isolation room if available. Healthcare workers in contact with a suspected case of 2019-nCoV acute respiratory disease, should wear PPE for contact, droplet and airborne transmission of pathogens: FFP2 or FFP3 respirator tested for fitting, eye protection (i.e. goggles or face shield), a long-sleeved water-resistant gown and gloves<sup>10</sup>. Medical staff should keep at least 1-meter distance between suspected patients and other patients. All patients should be asked to practice respiratory etiquette, covering their nose and mouth while coughing or sneezing with a tissue. Hand hygiene should take place after contact with respiratory secretions<sup>11</sup>. Healthcare personnel entering the room should apply standard precautions, contact precautions and airborne precautions.

Detailed advice can be found at [https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-\(ncov\)-infection-is-suspected](https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected) and

<https://www.ecdc.europa.eu/en/publications-data/infection-prevention-and-control-care-patients-2019-ncov-healthcare-settings>.

## 2. Information strategies for prevention of respiratory infections at points of entry

### ***Health information to travellers arriving from or departing to affected area***

Informative materials (leaflets, banners, posters, electronic slides etc.) can be prepared and distributed to travellers arriving from or departing to affected areas.

The materials should include information about: symptoms, hygiene advice (hand washing, coughing and sneezing etiquette, disposal of dirty tissues, social distancing etc.), special considerations for persons vulnerable to ARI complications<sup>4</sup>, promptly seeking medical advice if relevant symptoms develop within 14 days after visiting affected area and informing the health care provider about their history of travel to affected areas, who to contact for medical advice, and avoiding close contact with live or dead farm or wild animals for persons visiting affected areas.

WHO advises the following for the general public: a) frequently clean hands by using alcohol-based hand rub or soap and water; b) when coughing and sneezing cover mouth and nose with flexed elbow or tissue – throw tissue away immediately and wash hands; c) avoid close contact with anyone who has fever and cough; d) if persons have fever, cough and difficulty breathing to seek medical care early and share previous travel history with the health care provider; e) when visiting live markets in areas currently experiencing cases of 2019-nCoV acute respiratory disease, avoid direct unprotected contact with live animals and surfaces in contact with animals; and f) the consumption of raw or undercooked animal products should be avoided. Raw meat, milk or animal organs should be handled with care, to avoid cross-contamination with uncooked foods, as per good food safety practices<sup>12</sup>.

WHO infographics are available at the following link: <https://www.who.int/health-topics/Coronavirus>

The ECDC brochure providing advice for travellers: is available at the following link: <https://www.ecdc.europa.eu/en/publications-data/advice-travellers-outbreak-novel-coronavirus-2019-ncov>

### ***Staff at the point of entry***

Public health authorities, travel health clinics, travel agencies and conveyance operators should receive up-to-date information about the 2019-nCoV acute respiratory disease. Trained staff to implement the contingency plan described in paragraph 3 should be available, as well as a stockpile of supplies.

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<sup>4</sup> Preliminary information suggests that older adults and people with underlying health conditions may be at increased risk for severe disease from the 2019-nCoV: <https://wwwnc.cdc.gov/travel/notices/alert/novel-coronavirus-china>

It is advised that non-public health staff and other service providers at points of entry such as security, police, port state control, harbour pilots and cleaning services receive up-to-date information about the 2019-nCoV acute respiratory disease.

### 3. Contingency plan at airports and ports

Contingency plans for acute respiratory infections should be in place and the SOPs included in the plan should be followed when identifying a traveller who fulfils the criteria of a suspect case as follows:

A patient with acute respiratory infection (sudden onset of at least one of the following: cough, sore throat, shortness of breath) requiring hospitalisation or not, **AND** in the 14 days prior to onset of symptoms, met at least one of the following three epidemiological criteria: were in close contact with a confirmed or probable case of 2019-nCoV acute respiratory disease; **or** had a history of travel to [areas with presumed on-going community transmission of 2019-nCoV](#); **or** worked in or attended a health care facility where patients with 2019-nCoV acute respiratory disease were being treated<sup>13</sup>.

When the clinical and epidemiological criteria of a suspect case are fulfilled, then the patient should be transferred directly to the health care facility or placed in a designated facility at the point of entry for temporary isolation until transferred to the health care facility. The PLF should be collected before disembarkation of travellers. Guidance on establishing public health assessment interview spaces at points of entry can be found in the WHO Handbook for the Management of Public Health Events in Air Transport [https://www.who.int/ihr/publications/9789241510165\\_eng/en/](https://www.who.int/ihr/publications/9789241510165_eng/en/).

If the laboratory results are positive for 2019-nCoV and the patient fulfils the criteria of a possible or a confirmed case, then contact tracing should begin. The contacts of a possible or confirmed case should be assessed for their exposure and classified.

#### **Contact tracing on aircrafts**

A contact in an aircraft is any person sitting within two seats (in any direction) of the suspect 2019-nCoV case, travel companions or persons providing care, and crew members serving in the section of the aircraft where the index case was seated, if severity of symptoms or movement of the case indicate more extensive exposure, passengers seated in the entire section or all passengers on the aircraft may be considered close contacts<sup>14</sup>.

An algorithm (Annex 1) that can be used by the public health authorities for decision making in response to an event of a suspect case of 2019-nCoV acute respiratory disease on board an aircraft can be downloaded from: [https://www.healthygateways.eu/Portals/0/plcdocs/Flow\\_chart\\_Aircrafts\\_4\\_2\\_2020.pdf](https://www.healthygateways.eu/Portals/0/plcdocs/Flow_chart_Aircrafts_4_2_2020.pdf)

#### **Contact tracing on ships**

The following definitions have been developed to be applied on board ships, adapting the definitions by WHO and ECDC<sup>14,15</sup>:

Close contact (high risk exposure):

- a person who has stayed in the same cabin with a suspect 2019-nCoV acute respiratory disease case;
- cabin steward who cleaned the cabin of the suspect 2019-nCoV acute respiratory disease case;
- a person who has had face-to-face contact or was in a closed environment with a suspect 2019-nCoV acute respiratory disease case, including participating with them in on board or ashore activities, or dining at the same table;
- a person in the same immediate travelling group participating in common activities on board or ashore;
- a healthcare worker or other person providing direct care for a 2019-nCoV acute respiratory disease suspect case.

Casual contact (low risk exposure):

- Casual contacts are difficult to define on board a confined space such as a cruise ship, therefore, it is advised to consider as casual contacts all travellers on board the ship who do not fulfill the criteria for the definition of a close contact.

A flow diagram (Annex 2) for the management of a suspect case and contacts, as well as the procedures of free pratique from the time of identification of a suspect case, until the ship will be allowed to depart can be downloaded from the following link:

[https://www.healthygateways.eu/Portals/0/plcdocs/Flow\\_chart\\_Ships\\_3\\_2\\_2020.pdf](https://www.healthygateways.eu/Portals/0/plcdocs/Flow_chart_Ships_3_2_2020.pdf)

### ***Standard Operating procedures***

The contingency plan at the PoE should have SOPs for:

- Interviewing symptomatic travellers (questionnaire asking for name, gender, date of birth, telephone, email address, country of residence, patient symptoms, date of first symptom onset, human exposures in the 14 days before illness onset, if patient travelled within the last 14 days domestically or internationally, countries visited, if the patient visited China and had exposure to animals in the 14 days before illness onset, if animals were handled, nature of contact with animals, contact with anyone with suspected or confirmed 2019-nCoV acute respiratory disease, if patient attended festival or mass gathering, if patient exposed to person with similar illness, location of exposure, if patient visited or was admitted to inpatient health, if patient visited outpatient treatment facility, if patient visited traditional healer, patient occupation (specify location/facility), if patient visited live animal market)
- Case management at the point of entry<sup>6,10,11,16</sup>
- Contact tracing (relevant advice can be found at EU HEALTHY GATEWAYS advice for ship operators, at ECDC guidelines for MERS-CoV and for 2019-nCoV acute respiratory disease<sup>8,14</sup>)
- Communication and reporting plan at the local point of entry level, intermediate level and national level
- Cleaning and disinfection for the point of entry facilities and instructions for use of PPE by Point of Entry (PoE) staff. The time of environmental survival of 2019-nCoV is currently unknown. SARS-CoV may survive in the environment for several days. MERS-CoV may survive >48hours at 20°C, 40% relative humidity comparable to an indoor environment, on plastic and metal surfaces<sup>17</sup>.



- Use of equipment (e.g. diagnostic body temperature measuring devices) according to manufacturer instructions, including calibration and checks for accuracy
- Transportation of symptomatic persons to a health care facility
- Public health observation, temporary isolation space

### ***Training materials for preparedness and response at ports and at airports***

The training materials of the following training courses that were conducted in the framework of the EU HEALTHY GATEWAYS joint action in 2019, are available to the EU MS:

- Training of the trainers' course "Preparedness and response to public health events at airports"
- Training of the trainers' course "Preparedness and response to public health events at ports"

The training materials of the training courses are available to the EU MS and access can be given by the EU HEALTHY GATEWAYS joint action (contact email: [info@healthygateways.eu](mailto:info@healthygateways.eu)).

## **4. Entry screening**

### ***Evidence for effectiveness of entry screening based on past experience***

As it has been described in WHO technical guidance during past public health events, entry or exit screening measures are generally conducted as a two-step process: primary screening and secondary screening<sup>18,19</sup>. Primary screening includes an initial assessment by personnel, who may not necessarily have public health or medical training. Activities include visual observation of travellers for signs of the infectious disease, measurement of travellers' body temperature, and completion of a questionnaire by travellers asking for presence of symptoms and/or exposure to the infectious agent. Travellers who have signs or symptoms of the infectious disease, or have been potentially exposed to the infectious agent, are referred to secondary screening. Secondary screening should be carried out by personnel with public health or medical training. It includes an in-depth interview, a focused medical and laboratory examination and second temperature measurement<sup>20</sup>.

A systematic review of the literature and a survey were conducted in the framework of a training course that was organised by DG SANTE in 2019 about entry/exit screening border measures<sup>20</sup>. The review examined structures and processes currently in place in EU MS and worldwide, as well as the strengths, limitations and lessons learnt from applying entry/exit screening at points of entry (ports, airports, ground crossings). The following are summary conclusions that have been extracted from the literature review and concern the lessons learnt from entry and exit screening measures applied during the Influenza Pandemic (H1N1), SARS and 2014-2015 Ebola Virus Disease (EVD) outbreak. It should be noted that the conclusions may not be directly applicable to the 2019-nCoV acute respiratory disease outbreak.

1. Evidence clearly showed **ineffectiveness of entry screening measures to identify cases** during past public health emergencies:
  - a. Entry screening measures for SARS did not detect any confirmed SARS cases in Australia, Canada and Singapore<sup>21-26</sup>.
  - b. Thousands of arriving travellers were screened, but no confirmed case was identified.

- c. Entry screening measures in various countries worldwide during 2009 Influenza Pandemic (H1N1) showed zero or extremely low percentages of confirmed cases out of the total numbers of travellers that passed through entry screening measures in various countries worldwide<sup>21,22 27 23-26</sup>.
2. There is **poor evidence for only a short delay of a few days in introducing cases** of 2009 Influenza Pandemic (H1N1) to countries implementing entry screening measures.
  - a. One study indicated the delay of introduction of 2009 Influenza Pandemic (H1N1) to the countries implementing entry screening by about one week, but there were limitations in the methodology used<sup>28</sup>.
3. **Limitations** of entry screening:
  - a. False declarations by passengers about exposure and disease signs and symptoms<sup>23</sup>.
  - b. Antipyretic drugs can be used by travellers to conceal fever<sup>23</sup>.
  - c. Questionnaires asking about exposure and thermal scanning machines, were nonspecific for SARS<sup>25</sup>.
  - d. The frequency of SARS among international passengers arriving or departing was low resulting in low positive predictive value<sup>25</sup>.
  - e. The de facto point of entry into the healthcare system for travellers with serious infectious diseases was found to be the in-country, acute care facilities (hospitals, clinics, and physicians' offices) and not the airports<sup>25</sup>.
  - f. Language barriers - flight announcements about screening measures and requests for declaring exposures were not understood by passengers<sup>23</sup>.
4. **Adverse effects** of entry and exit screening
  - a. High cost of screening measures<sup>23-25</sup>.
  - b. Investing in screening measures reduces the resources from other effective measures<sup>25,26</sup>.
  - c. May give to the public a false sense of security<sup>29</sup>.
5. However, evidence demonstrated that **several beneficial "secondary" effects** of entry/exit screening measures implementation have been reported:
  - a. Obtaining contact information of travellers to be used if needed for contact tracing or public health observation purposes<sup>30,31</sup>.
  - b. Educating and informing the traveller passing through the screening points about the public health risks and prevention measures<sup>30</sup>.
  - c. Linking the traveller with public health authorities for the duration of the incubation period to facilitate health monitoring and prompt referral for care if they became ill<sup>30</sup>.
  - d. Facilitating rapid and appropriate clinical care for ill travellers<sup>30</sup>.
  - e. Maintaining confidence that air travel is safe<sup>30</sup>.
  - f. Enabling humanitarian and public health organisations to sustain travel to affected areas by regular commercial airline flights, maintaining continued flow of passenger traffic and resources needed for the response to the affected region<sup>32-34</sup>.
  - g. During the large EVD outbreak of 2013-2016 in West Africa, exit screening in EVD affected countries, laid the foundation for future reconstruction efforts related to borders and travel, including IHR core capacities (e.g. regional surveillance systems, cross-border coordination)<sup>32</sup>.
  - h. May have helped dissuade ill persons from travelling by air<sup>35</sup>.

- i. Preserving public confidence<sup>23,25,36</sup>.
- j. Relieving political and social pressure and limiting negative economic consequences from travel and trade restrictions<sup>23</sup>.
- k. Help avoiding major economic, social and international impact which even a single imported SARS case may have<sup>26</sup>.

The detailed literature review report can be downloaded from:

[https://res.mdpi.com/d\\_attachment/ijerph/ijerph-16-04638/article\\_deploy/ijerph-16-04638-v2.pdf](https://res.mdpi.com/d_attachment/ijerph/ijerph-16-04638/article_deploy/ijerph-16-04638-v2.pdf)

### ***Measures causing travel or trade restriction - legal obligations of EU MS***

On the 30<sup>th</sup> of January 2020, the WHO Director-General declared that the outbreak of 2019-nCoV acute respiratory disease constitutes a Public Health Emergency of International Concern (PHEIC) and issued the temporary recommendations to all countries<sup>37</sup>. WHO does not recommend any travel or trade restriction based on the current information available.

According to the IHR 2005 Article 43, if a country have decided to implement public health measures including refusal of entry or departure of international travellers, baggage, cargo, containers, conveyances (aircrafts, ships trains etc.), goods, and the like, or their delay, for more than 24 hours, then the country must inform WHO within 48 hours about the public health rationale and justification of such measures<sup>5</sup>. WHO will review the justification and may request that the country reconsider their measures. WHO is required to share with other States Parties the information about measures and the justification received.

Moreover, according to Decision 1082/2013/EU, Articles 7, 9 “When notifying an alert, the national competent authorities and the Commission shall promptly communicate through the Early Warning and Response System (EWRS) any available relevant information in their possession that may be useful for coordinating the response such as [...] public health measures implemented or intended to be taken at national level<sup>38</sup>. Where a Member State intends to adopt public health measures to combat a serious cross-border threat to health, it shall, before adopting those measures, inform and consult the other Member States and the Commission on the nature, purpose and scope of the measures, unless the need to protect public health is so urgent that the immediate adoption of the measures is necessary (Decision 1082/2013/EU, Articles 9, 11)”<sup>38</sup>.

Lessons learned during past PHEIC demonstrated that additional health measures beyond the WHO temporary recommendations harmed populations in affected areas by delaying missions for medical support, preventing access to supplies, food, and medical equipment, causing economic damages to affected countries and spreading fear and stigma.

### ***Advice to EU MS about screening measures at borders***

WHO issued temporary recommendations for exit screening at international airports and ports of the People’s Republic of China, with the aim of early detection of symptomatic travellers for further evaluation and treatment, while minimizing interference with international traffic<sup>37</sup>.

WHO indicates the following about entry screening: “Advice for entry screening in countries/areas without transmission of the novel coronavirus 2019-nCoV that choose to perform entry screening: The evidence from the past outbreaks shows that effectiveness of entry screening is uncertain, but it

*may support risk communication strategy by providing information to travellers from affected countries/areas to reduce the general risk of acute respiratory infections, and to seek medical attention early if they develop symptoms compatible with the infection. During the current outbreak with the novel coronavirus 2019-nCoV, a number of exported cases were detected through entry screening implemented by some countries. Symptomatic cases may be detected through temperature screening at Point of Entry, for whom medical examination and laboratory tests will be conducted for confirmation. Temperature screening to detect potential suspect cases at Point of Entry may miss travellers incubating the disease or travellers concealing fever during travel and may require substantial investments. A focused approach targeting direct flights from affected areas could be more effective and less resource demanding. Currently the northern hemisphere (and China) is in the midst of the winter season when Influenza and other respiratory infections are prevalent. When deciding implementation of entry screening, countries need to take into consideration that travellers with signs and symptoms suggestive of respiratory infection may result from respiratory diseases other than 2019-nCoV, and that their follow-up may impose an additional burden on the health system. National policy and capacities should be taken into account during the decision-making process. If entry screening is implemented, temperature screening should always be accompanied by dissemination of risk communication messages at Points of Entry. This can be done through posters, leaflets, electronic bulletin, etc., aiming at raising awareness among travellers about signs and symptoms of the disease, and encouragement of health care seeking behavior, including when to seek medical care, and report of their travel history. Countries implementing temperature screening are encouraged to establish proper mechanism for data collection and analysis, e.g. numbers of travellers screened and confirmed cases out of screened passengers, and method of screening. Public health authorities should reinforce collaboration with airline operators for case management on board an aircraft and reporting, should a traveller with respiratory disease symptoms is detected, in accordance with the IATA guidance for cabin crew to manage suspected communicable disease on board an aircraft”.*

*The latest Rapid Risk Assessment from ECDC advises that “Entry screening for 2019-nCoV involves the use of thermal scanning and/or symptom screening. In general, evidence in peer-reviewed literature does not support entry screening as an efficient measure for detecting incoming travellers with infectious diseases, especially in this case where the symptoms of the disease are very common and the timeline coincides with the increased activity of seasonal influenza in Europe and China. However, some imported 2019-nCoV cases in Asian countries have been detected through entry screening procedures at destination airports. Modelling work by ECDC has assessed the effectiveness of entry screening in detecting travellers infected with nCoV to be low. Approximately 75% of cases from affected Chinese cities would arrive at their destination in the incubation period and remain undetected, even if the efficacy of the screening test to detect symptomatic individuals were 80% for both exit and entry screening.”<sup>1</sup>.*

The scientific evidence demonstrates ineffectiveness of entry screening measures to stop the spread of disease as previously described. However, entry screening can support informative strategies to travellers and in combination with measures described in paragraphs 1, 2 and 3 can contribute to early identification and appropriate management of imported cases. Health measures should not cause unnecessary delays and should not interfere with international traffic and trade.

The decision should be taken by the EU MS after consideration of country-specific factors. To facilitate the decision making process, an **algorithm** following 5 steps has been developed in the framework of the training course organised by DG SANTE in January 2019. The decision making algorithm can be downloaded from: [https://www.healthygateways.eu/Portals/0/plcdocs/15-Algorithm\\_EE\\_V4.pdf](https://www.healthygateways.eu/Portals/0/plcdocs/15-Algorithm_EE_V4.pdf). Information currently available about the 2019-nCoV acute respiratory disease from WHO, ECDC, US CDC, as well as past experience from SARS-CoV and MERS-CoV can be used in applying the algorithm. It should be noted that currently there is limited knowledge about the 2019-nCoV acute respiratory disease and therefore, it is expected that in this initial stage decision making will involve significant uncertainty.

### **Training materials for entry and exit screening**

DG SANTE organised the training programme 'Evidence-based best practices on entry/exit screening for infectious diseases in humans' to support countries participating in the Health Programme, to improve and better coordinate preparedness and response measures for serious cross-border health threats.

On 30-31 January 2019, the training course took place in Luxembourg, organized by DG SANTE and the Consumers, Health, Agriculture and Food Executive Agency (Chafea), with the support of the consortium of University of Thessaly (UTH), Robert Koch Institute (RKI) and the National Institute for Public Health and the Environment (RIVM).

The overall aim of the course was to build capacities and to foster cooperation between the public health/medical border authorities from EU MS, EU border control agencies and international organisations. The training course was designed in order to foster exchange of knowledge and practices on entry/exit screening for infectious diseases in humans and health measures at border controls (at air, water and land border crossings), and to contribute to the implementation of Decision 1082/2013/EU and the International Health Regulations 2005 (IHR).

The training materials of the training course are available to the EU MS and access can be given by the EU HEALTHY GATEWAYS joint action (contact email: [info@healthygateways.eu](mailto:info@healthygateways.eu)).

The EU HEALTHY GATEWAYS joint action is operating in an emergency mode and is available to provide technical or training support to EU MSs on issues related to health measures at points of entry.

## Working group members

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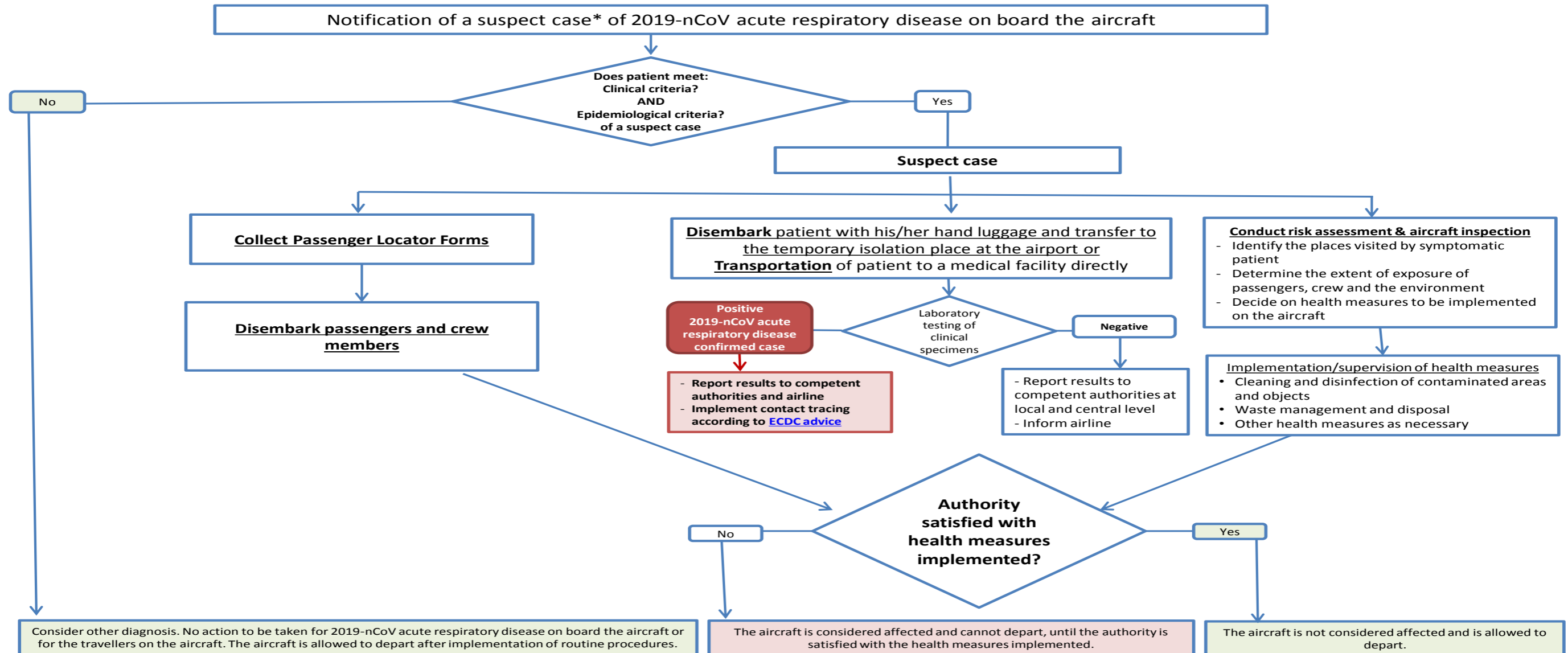
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For any questions or support related to the points of entry, please email [info@healthygateways.eu](mailto:info@healthygateways.eu)

Annex 1 [https://www.healthygateways.eu/Portals/0/plcdocs/Flow\\_chart\\_Aircrafts\\_4\\_2\\_2020.pdf](https://www.healthygateways.eu/Portals/0/plcdocs/Flow_chart_Aircrafts_4_2_2020.pdf)

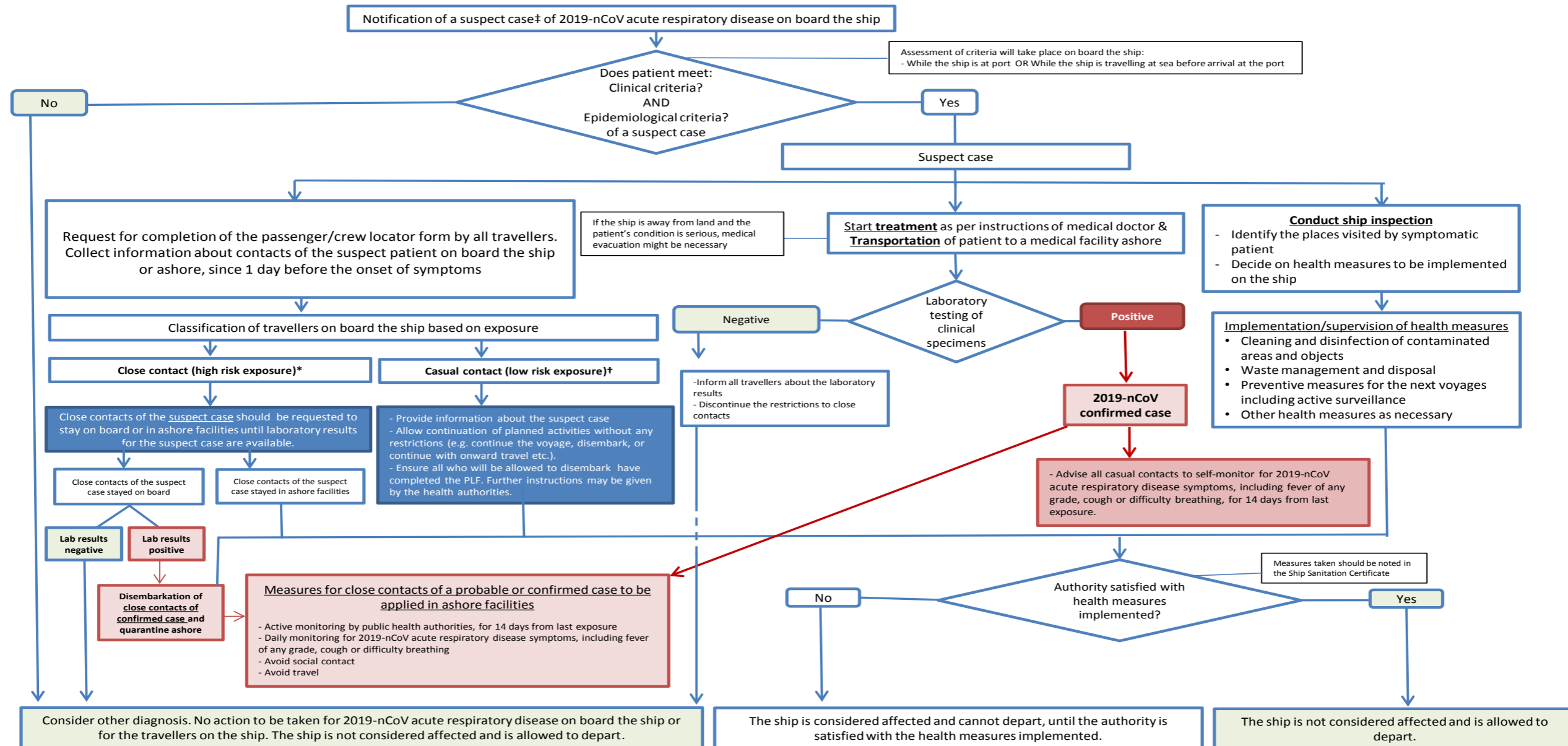
Algorithm for decision making in response to an event of a suspect case of 2019-nCoV acute respiratory disease on board an aircraft



**\*Suspect case:**

Patients with acute respiratory infection (sudden onset of at least one of the following: cough, sore throat, shortness of breath) requiring hospitalisation or not, AND in the 14 days prior to onset of symptoms, met at least one of the following three epidemiological criteria: were in close contact with a confirmed or probable case of 2019-nCoV acute respiratory disease ; or had a history of travel to areas with presumed ongoing community transmission of 2019-nCoV acute respiratory disease; or worked in or attended a health care facility where patients with 2019-nCoV acute respiratory disease were being treated.

**Algorithm for decision making in response to an event of a suspect case of 2019-nCoV acute respiratory disease on board ships**



**‡Suspect case:**  
 Patients with acute respiratory infection (sudden onset of at least one of the following: cough, sore throat, shortness of breath) requiring hospitalisation or not, AND in the 14 days prior to onset of symptoms, met at least one of the following three epidemiological criteria: were in close contact with a confirmed or probable case of 2019-nCoV infection; or had a history of travel to areas with presumed ongoing community transmission of 2019-nCoV; or worked in or attended a health care facility where patients with 2019-nCoV infections were being treated.

**\*Close contact (high risk exposure):**

- a person who has stayed in the same cabin with a suspect 2019-nCoV acute respiratory disease case;
- cabin steward who cleaned the cabin of the suspect 2019-nCoV acute respiratory disease case
- a person who has had face-to-face contact or was in a closed environment with a suspect 2019-nCoV acute respiratory disease case, including participating with them in on board or ashore activities, or dining at the same table;
- a person in the same immediate travelling group participating in common activities on board or ashore;
- a healthcare worker or other person providing direct care for a 2019-nCoV acute respiratory disease suspect case

**†Casual contact (low risk exposure):**  
 Casual contacts are difficult to define on board a confined space such as a cruise ships therefore, it is advised to consider as casual contacts all travellers on board the ship who do not fulfill the criteria of the close contact definition.





**EU HEALTHY GATEWAYS JOINT ACTION**  
**GRANT AGREEMENT NUMBER: 801493**  
**PREPAREDNESS AND ACTION AT POINTS OF ENTRY**  
**(PORTS, AIRPORTS, GROUND CROSSINGS)**



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