



GUIDELINES FOR PILOTAGE ACTIVITIES DURING THE COVID-19 PANDEMIC

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GUIDELINES FOR PILOTAGE ACTIVITIES DURING THE COVID-19 PANDEMIC

1) Objectives

This document is part of an effort undertaken by the Brazilian Maritime Pilots' Association (CONAPRA) to safeguard the health of pilots, of ship crew members, and of the society in general by mitigating the risks for COVID-19 infection in the Brazilian port system.

These guidelines are subject to changes according to the epidemiological scenario, the latest findings about the disease, and the resulting updates on sanitary standards made by competent national agencies. This document entails some, but not all, preventive measures against COVID-19. It is important that reliable sources such as the Ministry of Health, the Brazilian Health Regulatory Agency (ANVISA), and State and City Health Departments be consulted for a continuous update on the topic.

2) Introduction

On December 31, 2019, the World Health Organization (WHO) was informed of an outbreak of a non-determined etiology pneumonia in the Chinese city of Wuhan, Province of Hubei. Soon afterwards, on January 7, 2020, Chinese authorities announced the discovery of a new type of coronavirus as the causative agent of the disease. In February, the WHO named the new virus SARS-CoV-2, and the disease caused by it as COVID-19 (Coronavirus Disease, described in 2019). The disease spread quickly to neighboring countries and other continents. Because of this scenario, the WHO declared the coronavirus outbreak a pandemic. Brazil reported its first confirmed case of COVID-19 on February 26.

The incubation period of the disease may range from 2 to 14 days, with an average incubation period of 3 to 4 days. The most common symptoms include cough, fever, runny nose, sore throat, muscle pain, and difficulty breathing. When staying near other people, an infected person is able to spread the virus to another 2 to 3 individuals via respiratory droplets produced when this person sneezes, coughs, and even talks. Besides, these droplets may land on objects such as computers, cell phones, and other surfaces, and be carried to a healthy person's mouth, nose, or eyes by their own hands.

In most cases, the infection is asymptomatic or causes only mild symptoms, which very often go unnoticed. However, according to the WHO, about 20% of the cases will need hospital care due to breathing difficulties, and in the most serious cases extensive pneumonia and other complications will develop and may cause death.

Researchers around the world have been studying this virus in depth, so many unanswered questions must come to light as new discoveries are made. Effective pharmacological treatments and vaccines are yet to come. Meanwhile, the major health organizations in the world and the Brazilian Ministry of Health advocate practices such as social distancing, cough and sneeze etiquette, wearing face masks, and hand hygiene as the most effective measures to fight this pandemic.

Because pilots need to board ships and be in direct contact with crew members from different parts of the country and the world, who come from different epidemiological realities, they are specially vulnerable to COVID-19. Pilotage is an essential service, and because of the high transmissibility of this disease, preventive measures must be taken during the work shift and when boarding vessels in order to minimize the risks these professionals may become exposed to.

3) What to do before beginning the work shift

Between shifts, pilots should observe all recommendations and resolutions from federal, state and municipal health authorities. These have undergone constant changes to catch up with the epidemics dynamics, and were devised to slow down the spread of the virus among people. It is also paramount to take care of the personal health, as the disease tends to cause milder symptoms in healthy individuals. Therefore, the following measures are highly recommended:

- Exercise regularly, as this helps reduce the risks for high blood pressure, diabetes, obesity, and some types of cancer, which are all complicating factors for COVID-19.
- Try to have a healthy and well-balanced diet, as this helps strengthen the immune system.
- Avoid smoking; smokers are more vulnerable to respiratory infections in general.
- Make sure vaccines are up-to-date, especially the annual influenza vaccine and, in the absence of any contraindications, the pneumococcal vaccine for individuals older than 60.
- Follow current recommendations on social distancing, as set forth by local health authorities.
- See a doctor regularly to control possible chronic diseases and undergo complementary lab tests as required.

Attention:

- **In case a pilot presents with any COVID-19 symptoms such as cough, fever, runny nose, difficulty breathing, or loss of taste and smell, he/she cannot work and must seek medical care as soon as possible.**
- **If there are any confirmed or suspected COVID-19 cases at home, the pilot cannot work and must stay in isolation for 14 days counting from the case's onset of symptoms.**
- **People with 60 years of age or more, people who are obese or suffer from chronic diseases (cardiac, renal, respiratory, immunosuppressive, ischemic, high blood pressure, diabetes, among others), organ transplanted patients, pregnant women or women who have recently given birth, are all at a higher risk for serious illness.**
- **Depending on the local epidemiological scenario, this group should be kept away from direct pilotage activities to minimize the risks for**

infection. For such, it is critical to continuously observe the recommendations from local authorities.

- Undergo specific tests for COVID-19. There are basically two types of tests, both of which should be carried out once a month depending on the local epidemiological scenario.
 - PCR or RT-PCR - a sample of nasopharynx secretion or saliva is collected for virus detection.
 - Serology - identification of IgM or IgA, and IgG antibodies against SARS-CoV-2 on a blood sample.
 - The combination of results can be interpreted, in a simplified way, through the table below:

| RT-PCR | IgM/IgA | IgG | Clinical meaning |
|--------|---------|-----|---|
| + | - | - | Recent infection. |
| + | + | - | Recent infection. |
| + | + | + | Late active infection or final period of disease. |
| + | - | + | Late stage of infection. |
| - | + | - | Possible initial stage of infection. |
| - | - | + | Past contact with the virus. Possible immunity. |
| - | - | - | No previous contact with the virus. |

Orange: Pilots cannot work and must seek medical care as soon as possible

Green: Pilots can work normally.

Attention: Because these tests have technical limitations, false positive and false negative results are not rare. The final interpretation of results must be made by a physician during the medical appointment.

4) What to do during the work shift

4.1) At the pilots' accommodations:

- Wash hands with soap and water up to the level of the wrists for at least 20 seconds before rinsing.
- Spread 70 % alcohol gel on palm and back of hands, and on and between fingers. Let it dry alone.
 - Pilots should do it often during the work shift, especially before and after meals, after using PPE, and after touching shared surfaces. Dry up hands with paper towel and then discard it properly.
- Respect cough and sneeze etiquette: do not use your hands to cover your mouth/nose when coughing or sneezing; instead, stay away from people and cover your nose and mouth with a disposable tissue or with your arm. Discard the tissue in an appropriate place and clean your hands afterwards.
- Avoid touching your eyes, nose and mouth with unwashed hands.
- Avoid non-essential gatherings and meetings.

- Keep a distance of 2 meters from other people; act in a friendly manner, but without physical contact.
- Wear a N95/PFF2 mask during the work shift and make sure it is clean, dry, intact, and covering your nose and mouth. Handle your mask only with clean hands; use the lateral elastics and avoid touching its inner and outer sides. Keep your mask in a safe place after removing it, so as not to damage its structure.
 - When lodging conditions allow people to stay 2 meters apart from each other, and when everyone is wearing a mask, a surgical mask can be used in the circulation and rest areas, leaving the N95/PFF2 mask to be used when boarding ships with suspected or confirmed cases.

Attention: In addition to the 70% alcohol gel dispensers found in lodgings, dining rooms, and bathrooms, pilots should also carry individual containers with this product.

- Do not share objects of personal use.
- Objects that are handled with frequency, such as cell phones and computers, should be cleaned often.
- Make sure social areas are well ventilated.
- Try to handle documents virtually.
- Avoid elevators.
- Make sure the cleaning staff disinfects all common areas, living rooms, dining rooms, dormitories, and bathrooms with the correct disinfectant for each type of surface.
 - Disinfectant options: bleach solution for the floor and 70% alcohol for benches, consoles, and surfaces in general.
 - ANVISA Technical Standard nº 47/2020 provides for alternative disinfectants to 70% alcohol.
- The cleaning staff should do the disinfection at least twice a day, and always after each work shift change.
- When serving meals in a collective environment, safe distancing between tables and chairs should be observed so that people will not stay too close to one another.

4.2) During the transport to the vessel:

- Avoid frequent changes in the transport staff.
- Make sure both land and water transport facilities used by pilots have been disinfected with an appropriate solution for each type of surface.

Attention: use non-inflammable solutions when disinfecting motor boats.

- Do the disinfection before each trip.
- The driver and all crew members must wear a mask during land transport; the pilot can choose to wear safety goggles. The windows of the vehicle must stay open or partially open during the whole trip.

- All crew members must wear a mask during water transport. The pilot should travel in a place protected from the water and wetness, so as not to damage their personal protective equipment.

Attention: the pilot should always put on their personal protective equipment in a safe place, preferably before boarding the ship. It is very important that pilots become familiar with their PPE, since its incorrect handling is risky and can jeopardize the pilot's safety at work.

4.3) On the vessel:

- Get information about the sanitary conditions of the ship before boarding. In the absence of any reports, act as if there were suspected or confirmed cases on board.
- The personal protective equipment to be used when boarding vessels with no suspected or confirmed cases includes surgical or N95/PFF2 mask, and safety goggles or face shield. The pilot may choose to wear disposable gown and gloves.
- When boarding vessels with suspected or confirmed cases, pilots must wear full personal protective equipment: N95/PFF2 mask, safety goggles or face shield, scrub cap, gloves, and a disposable long-sleeved gown (see annex I)
- Avoid entering the bridge spaces when possible; prefer to work from external areas.
- Avoid using internal accommodations such as dining rooms and restrooms.
- Use your own personal protective equipment.
- If necessary, take your own supply of food and water as well as your personal hygiene products.

Vessels receiving a pilot must take the following measures:

- One hour before the pilot's boarding, keep only essential crew in the pilot's working area.
- Just before the pilot's boarding, disinfect surfaces and equipment to be used by him/her, including the bridge as well as cabins and bathrooms in case the pilot is to spend the night on board.
- Prevent the pilot from accessing the internal spaces of the vessel.
- Keep the pilot's passage areas well ventilated; choose well-ventilated passage areas that will not compromise the pilot's safety.
- All crew members receiving or escorting a pilot must:
 - Respect the 2-meter distancing.
 - Avoid physical contact.
 - Wear a mask.
- Provide the pilot with 70% alcohol containers for his/her own use.

4.4) When leaving the vessel:

- There should be a container with chlorinated solution to disinfect the pilot's shoes after disembarking.
- When returning from vessels with suspected or confirmed COVID-19 cases, remove the personal protective equipment carefully in a well-ventilated area as soon as possible.
- Keep the personal protective equipment in a plastic bag for infectious waste, as per ANVISA Resolution nº 56 of 2008. The bag must be sealed and disposed of appropriately.

Attention: Doffing PPE is a dangerous procedure, where contamination is very likely to occur. Therefore, pilots should be well trained to do it safely (see annex II).

- As soon as you have removed your personal protective equipment, wash your hands with soap and water, sanitize them with 70% alcohol gel, and then take a shower as soon as possible.

5) What to do after the work shift

5.1) Going home:

- Avoid gatherings, respect social distancing recommendations, wear a mask, and sanitize your hands with 70% alcohol gel during the transport.
- Consider taking off your shoes or stepping on a wet cloth with chlorinated solution before entering home. As soon as you get into the house, go to a well-ventilated place that is isolated from the other rooms to take off your shoes and leave objects such as bags, backpacks, glasses, etc.
 - Clothes should be laundered as soon as possible and put in the sun or in a well-ventilated place.
 - Other items such as bags, backpacks, and glasses can be washed with soap and water or sanitized with 70% alcohol before being reused.
 - Disinfect objects such as computers, cell phones, and other electronics that have been used at work with 70% isopropyl alcohol, before reusing them at home.
- After handling all clothes and materials, do your personal hygiene by taking a complete shower.

5.2) Health exams:

In case the pilot shows any symptoms, he/she must undergo a new medical assessment between each work shift. In such case, the doctor may request specific tests for COVID-19, in addition to other tests he/she might judge necessary.

5.3) How to behave at home:

If the pilot has been exposed to any suspected or confirmed COVID-19 case at work, he/she should follow the recommendations below for a period of 7 days:

- Keep distance from people at home, preferably sleeping in a separate room or respecting the 2-meter distancing.
- Respect cough and sneeze etiquette.
- Do your hand hygiene frequently with soap and water or 70% alcohol gel.
- Wear a mask while staying in the same room as other family members.
- Limit your movements around the house.
- Do not share food nor objects of personal use.
- Use a separate bathroom, if possible.
- Do not receive visitors.

People at home should watch for any respiratory symptoms; if symptoms arise, they must seek medical care, avoid unnecessary outings, respect cough and sneeze etiquette, and do their hand hygiene frequently with soap and water or 70% alcohol.

Areas in the house should be well ventilated and sanitized with soap and water or domestic disinfectants. Change towels, bed sheets, and clothes frequently. Keep and dispose of the garbage properly.

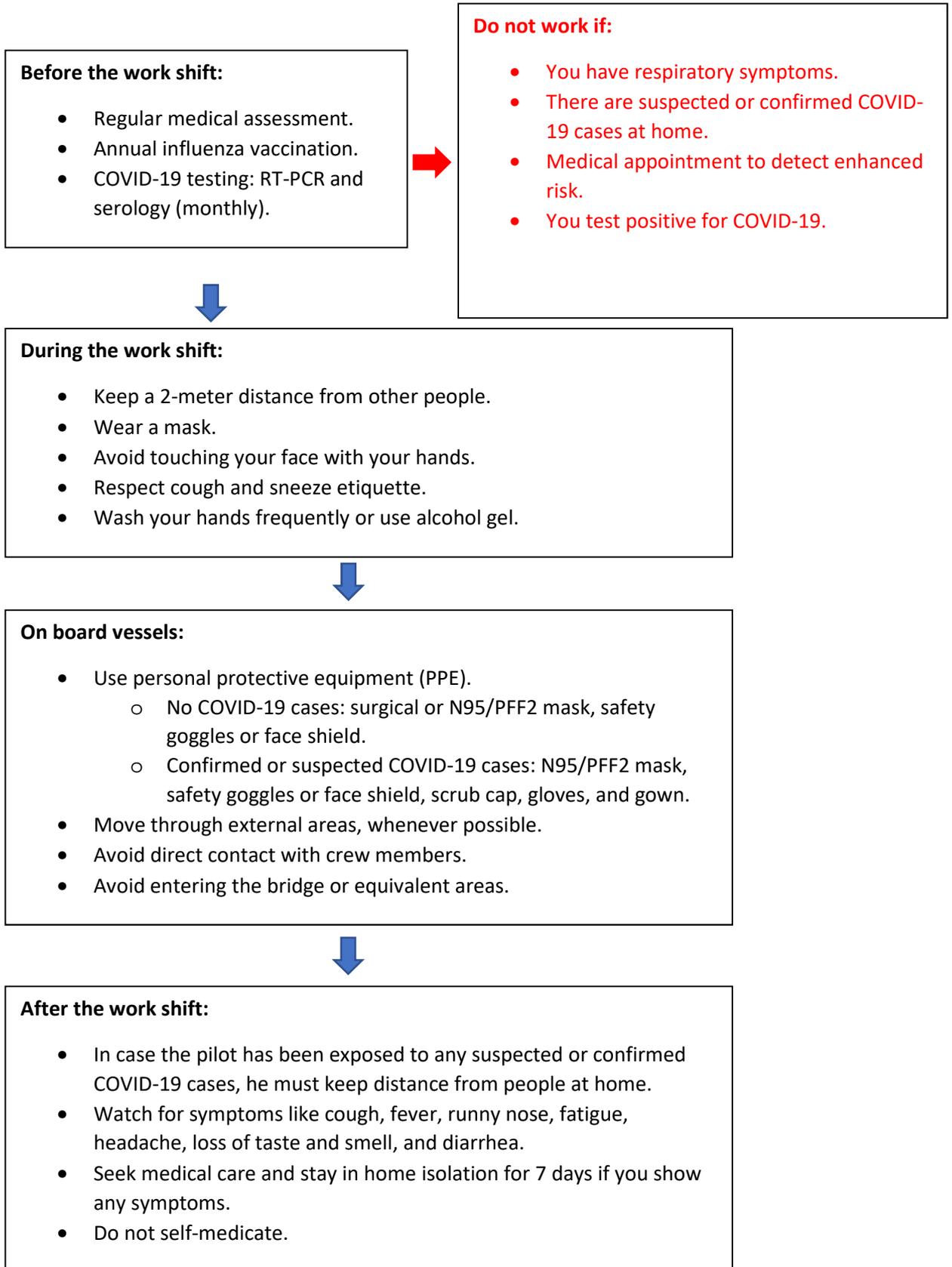
6) How to behave if you have symptoms

Pilots should watch for any COVID-19 symptoms arising during or after their work shift. They must take the following actions in case of symptoms:

- Withdraw immediately from the work schedule.
- Report suspected case to the port health authority.
- Keep in isolation until the health condition is properly elucidated, as per item 5.3 of this document.
- Seek face-to-face or remote medical care as soon as possible.

Attention: If symptoms arise, the diagnosis must be made by a qualified health professional. Avoid self-medication, as this could lead to serious side effects and hinder the diagnosis.

7) Flowchart of most important measures



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Annex I: Donning PPE



1. Wash hands.



2. Put gown on.



3. Put on mask, goggles, and scrub cap.



4. Wash hands.



5. Put gloves on.

Annex II: Doffing PPE



1. Take gloves off.



2. Wash hands.



3. Take off gown and scrub cap.



4. Wash hands.



5. Take off goggles and then mask using the lateral elastics. Sanitize goggles.



6. Wash hands.

Attention:

- Recommended reading: “Orientações Sobre a Colocação e Retirada de Equipamentos de Proteção Individual (EPIs)” [*Guidelines for Putting on and Removing Personal Protective Equipment (PPE)*], produced by the Federal Board of Nursing (COFEN), cited in the references. Also, watch the video suggested in the aforementioned document at <https://youtu.be/Kza71bme6ms>.
- The waste is considered infectious and must be disposed of accordingly.