



International Civil Aviation Organization

ELECTRONIC BULLETIN

For information only

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POST-COVID-19 INFECTION PROTOCOL FOR MEDICAL CERTIFICATION

1. The SARS-Co-V2 pandemic is still ongoing, and it has caused widespread illness. The severity of infection is dependent on a number of factors including pre-existing medical condition, the variant causing the infection and vaccination status.
2. An acute COVID-19 infection can present with symptoms that could have an adverse effect on flight safety. Medication used to treat these symptoms, including their side effects, could affect fitness to fly or to control aircraft. Studies have shown that COVID-19 infection can result in prolonged and long-term effects, after having recovered from the acute infection, known as *Post COVID-19 condition*.
3. It is crucial to ensure that aviation licence holders and others in safety critical positions maintain optimal physical and mental health to ensure minimal risk to aviation safety.
4. Currently, there is no international standard regarding resumption of duties post COVID-19 infection. Aviation licence holders who have had a COVID-19 infection should be assessed in accordance with national risk-based criteria to determine fitness for return to duty, which could include an additional assessment by an aviation medical examiner. Additional medical assessment by an aviation medical examiner after a COVID-19 infection should not be a routine requirement.
5. The International Civil Aviation Organization (ICAO) has developed expert-based guidance material to assist Member States with the risk assessment when considering the medical certification of licence holders with a history of COVID-19 infection.
6. Member States are encouraged to monitor the new scientific evidence as it becomes available and consider the guidance in the attached enclosure.

Enclosure:

Guidance material on post-COVID-19 infection protocols

Issued under the authority of the Secretary General

GUIDANCE MATERIAL ON POST-COVID-19 INFECTION PROTOCOLS

1. Introduction

More than two years after the beginning of the COVID-19 pandemic, States are still experiencing waves of COVID-19 infections, which in some instances have resulted in flight cancellations, rescheduling of flights or flight delays due to pilots, cabin crew or air traffic controllers being ill with COVID-19.

Acute COVID-19 infection and *Post-COVID condition* can cause symptoms or performance deficiencies that are incompatible with flight safety.

Some ICAO Member States have compiled protocols for fitness to fly or to control air traffic following COVID-19 infection. However, there is no international standard to assess fitness to return to duties since more data is required to determine an international standard.

The objective of this document is to provide guidance to ICAO Member States, in light of the importance of medical assessment of licence holders in safety-critical positions, to minimize the risk to aviation safety post COVID-19 infection.

2. Health impact of COVID-19

2.1 Acute COVID-19 infection

2.1.1 People with COVID-19 may have no symptoms, mild disease or severe illness. Symptoms may appear from one to fourteen days after exposure to the virus. Symptoms may include fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, new loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting or diarrhea¹.

2.1.2 Older adults and people who have significant underlying medical conditions such as heart disease, lung disease, diabetes and others seem to be at a higher risk for developing serious complications from COVID-19 illness.

2.1.3 Although the predominant symptoms of COVID-19 are respiratory, neurological manifestations have been recognized as an important component of the disease, even in cases without respiratory symptoms. The neurological manifestations associated with COVID-19 range from mild to critical and can be present both during and after acute COVID-19 infection.

2.1.4 Reported neurological signs, symptoms or syndromes in the acute phase include headache, dizziness, impaired taste or smell, delirium or confusion, agitation, stroke, seizures, coma, meningoencephalitis and Guillain-Barré syndrome².

2.1.5 Re-infection with SARS-Co-V2 variants have been clinically reported in some individuals.

¹ <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

² <https://www.who.int/publications/i/item/WHO-2019-nCoV-Sci-Brief-Neurology-2021.1>

2.2 Long-term health impact

- 2.2.1 Most people who were infected with COVID-19 recover completely within days to weeks. Some individuals — even those who had mild versions of the disease — continue to have persistent signs or symptoms after recovery. Those with severe symptoms may develop complications and require rehabilitation after hospitalization.
- 2.2.2 According to a WHO scientific brief³, *Post COVID-19 condition* occurs in individuals with a history of probable or confirmed SARS-CoV-2 infection, usually 3 months from the onset of the infection, with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis.
- 2.2.3 Symptoms may be a new onset following initial recovery from an acute COVID-19 episode, or persist from the initial illness. Symptoms may also fluctuate or relapse over time.
- 2.2.4 Common symptoms include fatigue, shortness of breath and “brain fog” or other cognitive dysfunction that could have an impact on everyday functioning. Other COVID-19–related long-term symptoms include cough, muscle/joint pain, chest pain, fast or pounding heartbeat, and dizziness. These symptoms may worsen following physical or mental activities.
- 2.2.5 Long-term neurological consequences include headache, problems with smell or taste, cognitive impairment, memory problems, confusion, fatigue, difficulty concentrating, sleep disturbances and neuropsychiatric symptoms such as depression or anxiety⁴.

2.3 Mental health impact

- 2.3.1 Psychological reactions such as stress, anxiety, and depression are common responses to the COVID-19 pandemic. In aircrew, circumstantial factors such as the fear of infection, fear of job loss, layover conditions, last minute flight roster changes, rapidly changing flight restrictions, different requirements for aircrew in different countries and unruly passenger behavior add to the stress experienced.
- 2.3.2 The pandemic, with all its associated consequences, has had a significant impact on overall mental health, including emotional, psychological, and social well-being of both passengers and aviation personnel, which could impact operational safety.
- 2.3.3 States are encouraged to implement the mental health principles in the Electronic Bulletin published on 10 November 2020 (Electronic Bulletin 2020/55) to support the mental well-being of aviation personnel and passengers.
- 2.3.4 Specifically, in the interest of flight safety, aviation medical examiners (AMEs) should discuss mental health effects with aviation licence holders and remind them that it is normal to be affected or feel anxious when having to cope with an abnormal event such as the COVID-19 pandemic. AMEs should encourage crew and controllers to reach out to a trusted peer support colleague or a medical professional when finding that the pressures of work or life could affect their performance. Self-awareness and early intervention are very effective mitigation measures to ensure safe performance, prevent licence holders from being removed

³ https://www.who.int/publications/i/item/WHO-2019-nCoV-Post_COVID-19_condition-Clinical_case_definition-2021.1

⁴ <https://www.who.int/publications/i/item/WHO-2019-nCoV-Sci-Brief-Neurology-2021.1>

from duty, and assist aviation personnel in managing any potential long-term health effects.

3. **Aeromedical assessment and issuance of certificates**

3.1 **Return of flight crew to duty after vaccination**

3.1.1 After vaccination, flight crew may return to duty if they are fit to do so in accordance with national guidelines.

3.1.2 ICAO does not recommend a universal mandatory administrative post-vaccination grounding period. However, States may wish to consider post-vaccination grounding periods or other mitigation measures based on their own risk assessments⁵. The risk assessment should include consideration of the likelihood and severity of side effects and the resulting risk of incapacity.

3.2 **Return to duty after COVID-19 infection**

3.2.1 Currently, there is not sufficient data available regarding the exact incidence of COVID-19 in aviation personnel and the prevalence of symptoms and sequelae post infection. Both the acute and long-term effects of the disease could interfere with the safe performance of duties in terms of functional performance and the risk of incapacitation.

3.2.2 Aviation licence holders with symptoms consistent with COVID-19 should stop flying or controlling air traffic until the diagnosis has been confirmed or excluded. Once the diagnosis has been confirmed or excluded, they should be assessed in accordance with national risk-based criteria to determine fitness for return to duty, which may include an additional assessment by an aviation medical examiner if indicated and need not be a routine requirement.

3.2.3 The national aviation authorities should provide appropriate guidance to support the safe return of aviation personnel to their duties once they are no longer infectious and have recovered from COVID-19 infection. It is essential to continue to monitor the scientific evidence regarding infectiousness and the effects of COVID infection and update the relevant guidance material accordingly.

3.2.4 Clinical presentation, course of the infection, treatment provided, development of complications or sequelae and existing comorbidity factors should be considered and clearly documented when assessing fitness to resume duties.

3.2.5 Individuals with asymptomatic or mild initial COVID-19 illness may return to normal duties after self-assessment or assessment by their treating doctor within the minimum time as recommended by the national public health authorities and aviation authorities under the following circumstances:

- a) Asymptomatic infection confirmed by a laboratory and the individual is no longer considered to be infectious;

⁵ https://www.icao.int/safety/CAPSCA/PublishingImages/Pages/ICAO-Manuals/10152_manual_3rd_edition.en.pdf

- b) Having completed a period of isolation or quarantine as required by the public health authorities; or
- c) Symptomatic infection (with an uncomplicated course of illness for example no hospitalization and full recovery) after resolution of symptoms that might reduce functional ability or increase incapacity risk.

3.2.6 Under the following circumstances the assessment should be conducted by an aviation medical examiner prior to resumption of duties:

- a) Incomplete recovery such as individuals with ongoing residual symptoms or requiring ongoing treatment;
- b) A complicated course of illness (e.g., hospitalization and/or where treatment required oxygen administration and/or ventilation);
- c) Development of complications/ sequelae; or
- d) Presence of complicated or chronic co-existing medical conditions.

3.2.7 If there are continuing symptoms or sequelae that might impair cognitive performance and/or the physical operation of flight controls, or present an increased acute incapacity risk, additional information, specialist referral and/or secondary assessment by a medical assessor might be required prior to issuance of a “fit for duty” medical certificate for return to duty.