COVID-19

Disease caused by the SARS-CoV-2 virus

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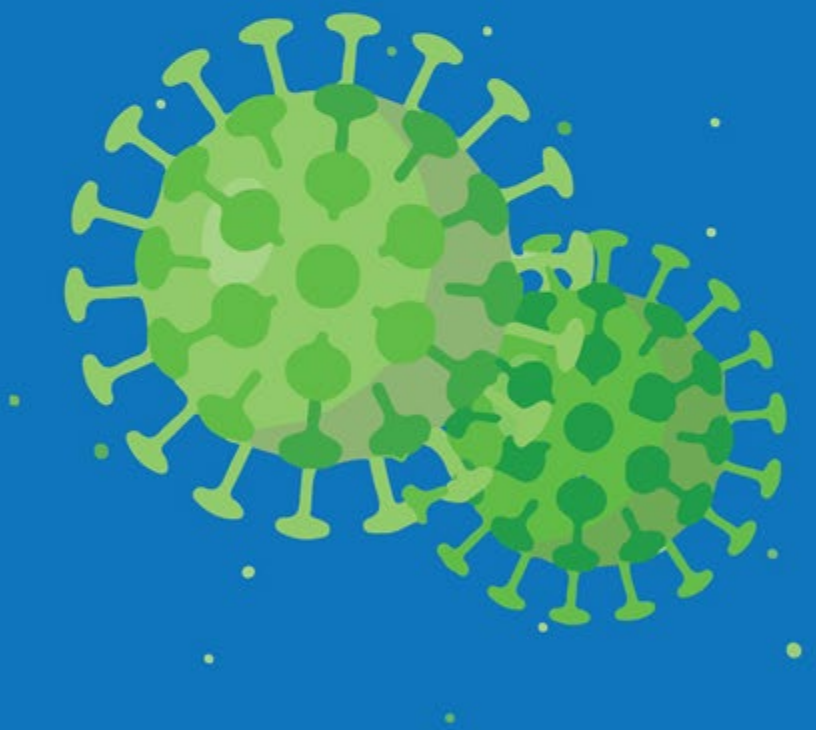
COVID-19 Aviation Health Safety Protocol

Operational Guidelines for the management of air passengers and aviation personnel in relation to the COVID-19 pandemic



EASA
European Union Aviation Safety Agency

ecdc
EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

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Glossary

COVID-19	Coronavirus disease 2019
DCC	Digital COVID Certificate
DLCO	Carbon monoxide diffusing capacity
dPLF	Digital Passenger Locator Form
EASA	European Union Aviation Safety Agency
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EU	European Union
EU-OSHA	European Agency for Safety and Health at Work
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
NCAs	National Competent Authorities
NPIs	Non-pharmaceutical interventions
PLF	Passenger Locator Form
PPE	Personal protective equipment
RADT	Rapid Antigen Detection Test
SARS-CoV-2	Severe acute respiratory syndrome corona virus 2
UPK	Universal Precaution Kits
VOC	Variant of concern
WHO	World Health Organisation

Executive summary

This document is intended to provide support to European Union/European Economic Area (EU/EEA) Member States' national authorities and aviation stakeholders to ensure, in a coordinated manner, the health and safety of passengers and the aviation personnel who serve them, by maintaining safe and secure operations while minimising the risk of SARS-CoV-2 transmission.

The document incorporates the latest scientific evidence and expert opinion from ECDC and EASA presenting recommended non-pharmaceutical interventions and other measures customised for air travel.

Wearing face masks at airports and inflight should be aligned with national measures on wearing masks in public transport and transport hubs. If either the departure or destination States require the wearing of face masks on public transport, aircraft operators should require passengers and crew to comply with those requirements inflight, beyond 16 May 2022. Further, as of 16 May 2022, aircraft operators, during their pre-flight communications as well as during the flight, should continue to encourage their passengers and crew members to wear face masks during the flight as well as in the airport, even when wearing a face mask is not required.

Member States should ensure that their travel-related measures are communicated effectively, in a timely and well-coordinated manner to avoid being imposed unilaterally, which could lead to confusion in travellers and a reduction in compliance. Experience during the past two years has demonstrated that coordination and communication of measures are essential to ensure optimal implementation and de-escalation of measures.

Where States still enforce entry measures, vaccinated people and those who have recovered from COVID-19 within the previous 180 days, who are not arriving from very high-risk countries or areas with community circulation of Variants of Concern (VOCs) and who can provide evidence of that by using the Digital Covid Certificate (DCC), or for third country nationals by using similar means of certification, should not be subject to testing or quarantine. States should consider accepting vaccination certificates for vaccines approved by national authorities or the World Health Organization (WHO). In this regard the document emphasises the use of 'one-stop' principles and the importance of a risk-based approach in accordance with safety management system principles.

For people who are not vaccinated and/or who have not recovered from COVID-19 within the previous 180 days, a risk-based approach to entry measures should be considered based on the Council Recommendation (EU) 2022/107 and the principles detailed in this document.

It is expected that the preventive measures recommended in these operational guidelines can be gradually scaled back over time in line with a reduction of the risk level through the roll-out of vaccination campaigns.

ECDC and EASA are constantly monitoring the epidemiological situation and will adjust the current recommendations as appropriate.

1 Background

On 15 April 2020, the European Commission (EC), in cooperation with the President of the European Council, put forward a Joint European Roadmap setting out recommendations on lifting COVID-19 containment measures. As called for in the Roadmap, on 13 May 2020 the EC put forward further guidelines on how to progressively restore transport services, connectivity, and free movement as soon as the health situation would allow it, whilst protecting the health of transport workers and passengers. The European Commission's Communication mandated the European Union Aviation Safety Agency (**EASA**) and the European Centre for Disease Prevention and Control (**ECDC**) to jointly issue more detailed technical operational guidelines for the aviation sector.

Subsequently, EASA and ECDC have developed the "Aviation Health Safety Protocol - Operational guidelines for the management of air passengers and aviation personnel in relation to the COVID-19 pandemic" (AHSP) document, first published on 20 May 2020 and updated on 30 June 2020 and 17 June 2021.

In December 2021, a new SARS-CoV-2 VOC, Omicron, spread across European countries. Although the severity of the infection with Omicron is lower at the individual level compared to previously circulating variants, the combination of higher growth rate and immune evasion indicate that any potential advantage Omicron may have in terms of decreased severity might be countered by increased community infection rates[1] that lead to a substantial additional burden to the healthcare system[2].

On 25 January 2022, the Council of the European Union adopted Council Recommendation (EU) 2022/107[3] on a coordinated approach to facilitate safe free movement during the COVID-19 pandemic and replacing Recommendation (EU) 2020/1475. Council Recommendation (EU) 2022/107 is intended to limit fragmentation and disruption, and to increase harmonisation, transparency and predictability for citizens and businesses while enhancing the criteria to be used for risk assessment putting more focus on the individual risk level by introducing the vaccination as a criterion for the risk assessment.

On 26 April 2022 the European Commission issued the Communication on COVID-19 - Sustaining EU Preparedness and Response: Looking ahead, which puts forward an approach for the management of the pandemic in the coming months, moving from emergency to a more sustainable mode. It invites Member States to take actions building on the successful EU-wide coordination for health preparedness and response.

This new update of the EASA and ECDC operational guidelines for the management of air passengers and aviation personnel in relation to the COVID-19 pandemic incorporates recent evidence regarding the effectiveness of COVID-19 vaccination as well as the implementation experience of the recommended non-pharmaceutical interventions (NPIs) for air travel, and aims to make recommendations for the transition/ de-escalation process with a harmonised and coordinated approach.

These operational guidelines and proposed measures will continue to be regularly evaluated and updated in line with better knowledge about the risks of transmission and the evolution of the pandemic. At the time of

[1] https://www.cdc.gov/mmwr/volumes/71/wr/pdfs/mm7104e4-H.pdf
[2] https://www.ecdc.europa.eu/en/publications-data/covid-19-omicron-risk-assessment-further-emergence-and-potential-impact
[3] Council of the European Union. Council Recommendation (EU) 2022/107 of 25 January 2022 on a coordinated approach to facilitate safe free movement during the COVID-19 pandemic and replacing Recommendation (EU) 2020/1475. Brussels: Council of the European Union; 2022. Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022H0107&qid=1646394991702

drafting this issue of the AHSP, the infection rate continues to be high at the European and global level, as does the mortality rate, particularly among those who have not been immunised or are vulnerable to severe infection. ECDC and EASA experts advise for cautious de-escalation of measures considering that a substantial proportion of the European population is not vaccinated, immunity wanes following vaccination or infection, and that new VOCs able to escape the vaccine-derived immunity are likely to appear. To mitigate the likelihood of new infection 'waves', it is essential that countries reduce their COVID-19-related measures gradually and in a coordinated manner.

At the time of drafting this update, five SARS-CoV-2 vaccines have been assessed by the European Medicines Agency (EMA) and approved for emergency use in Europe[4] and four more are currently under rolling review. A vaccination strategy has been implemented in all EU/EEA countries, including a strategy for supplementary doses (so-called 'booster' doses). In other parts of the world, other SARS-CoV-2 vaccines have been approved by regional or national authorities. Consequently, passengers traveling into Europe from other areas may have been vaccinated with other types of vaccines

As currently available vaccines do not provide full protection against infection and transmission, the NPIs proposed in this document for implementation in airports and on-board aircrafts should still be observed to minimise any residual risk of virus transmission during travel.

The EASA-ECDC AHSP will continue to evolve with the epidemiological situation of COVID-19 in the EU/EEA. EASA, in coordination with ECDC, will regularly assess the need to amend individual measures and will regularly report to the Return to Normal Operations Task Force as well as to its Member States' Advisory Body and Stakeholder Advisory Body if there is a need to update the AHSP. It is expected that the preventive measures recommended in these operational guidelines may be gradually scaled back over time in line with the epidemiological situation[5], vaccination overview[6] and a reduction of the burden of disease. Furthermore, if additional and reliable mitigating measures become available, these should be considered as alternatives or enhancements aiming to alleviate the burden on passengers and aviation personnel, while maintaining the appropriate level of health safety and considering the level of risk.

[4] COVID-19 Vaccines: Key Facts at: https://www.ema.europa.eu/en/human-regulatory/overview/public-health-threats/coronavirus-disease-covid-19/treatments-vaccines/vaccines-covid-19/covid-19-vaccines-key-facts

[5] ECDC weekly update https://www.ecdc.europa.eu/en/covid-19/country-overviews

[6] ECDC, COVID-19 vaccine tracker, at https://qap.ecdc.europa.eu/public/extensions/COVID-19/vaccine-tracker.html#uptake-tab and COVID-19 Vaccine rollout overview, at: https://www.ecdc.europa.eu/en/covid-19/vaccine-roll-out-overview

2 General evidence-based principles

— Airport operators should appoint a coordinator to ensure the uniform application of preventive measures in order to ensure that the public health risks during this particular crisis are mitigated by all stakeholders providing services at the airport. The coordinator should be in direct contact with the airport public health authorities and the local (and/or national) public health authorities.

— The risk of infection depends on the type and duration of the contact with an infected person. In order to decrease risk of infection during travel, airport and aircraft operators should consider measures to influence these two variables. This could be achieved by:

- properly using a medical facemask, which can help reduce the spread of COVID-19 in the community by reducing the release of infectious respiratory droplets;
- limiting close contact between individuals not travelling together - for example by encouraging physical distancing where possible at airports; and
- limiting the exposure time, for example by managing passenger flows at airports, by orderly embarking and disembarking procedures or by limiting the waiting times in boarding and disembarking busses.

— Risk communication messages should discourage people with COVID-19-compatible symptoms from travelling or showing up for work. Testing possibilities should be offered to the staff/crew.

— Health safety promotion material[7] should be widely available at airport premises[8] and in the aircraft cabin. Attention should be paid to the format of the health safety promotion material. We recommend using infographics that can reduce the chances of misunderstandings due to language differences.

— There are several scenarios for the further development of the pandemic. The future trajectory of the COVID-19 pandemic will be impacted by many factors, including the:

- duration of immunity after infection and vaccination;
- global vaccination coverage; and
- any emergence of new variants.

— The epidemiological situation will continue to fluctuate, variants will continue to emerge, potentially with different characteristics for transmissibility, immune escape and severity. We anticipate that SARS-CoV-2 will periodically place significant strain on public health services and health systems.[9]

[7] EASA and ECDC have created sample health safety promotional material available to assist airport operators and aircraft operators in creating their own material:
https://www.easa.europa.eu/document-library/general-publications/easaecdc-process-passengers
https://www.ecdc.europa.eu/en/covid-19/facts/infographics,
https://www.ecdc.europa.eu/en/covid-19/facts/videos

[8] see Annex 1 'Health Safety Promotion Material' for communication guidance.

Suk JE, et al, Public health considerations for transitioning beyond the acute phase of the COVID-19 pandemic in the EU/EEA. Euro Surveill. 2022;27(17):pii=2200155. https://doi.org/10.2807/1560-7917.ES.2022.27.17.2200155

— With the publication of the EU Digital COVID Certificate (DCC) Regulation[10], the certification of vaccination within Europe has been harmonised. Many countries have decided to suspend the verification of the DCC. However, if an authority continues to require the verification of a vaccination certificate such as the EU DCC, from a medical perspective the best option is to do such verification prior to arriving at the airport. If verification has been reliably completed prior to departure, there is very little medical reason for additional checks later on through the journey, which would constitute duplication.

3. Management of passengers

The guidance provided in this Section reflects and expands on the general principles provided in Section 2 and is grouped as measures proposed at all times and – in addition to these recommendations – further specific recommendations before flight/at the airport and when on board the aircraft.

3.1 At all times

OBJECTIVE

To ensure that passengers arriving at the airport and boarding flights are aware of, and adhere to, the preventive measures to ensure a safe and healthy environment for air travellers and aviation personnel at all times.

The use of medical face masks

Medical face masks[11] (hereafter referred to also as 'face masks') are among the most efficient means to prevent the transmission of SARS-COV-2 including existing VOCs. As such, the wearing of masks should be considered in crowded indoor and outdoor settings, including air travel.

If the departure or destination States require wearing of face masks in public transport, aircraft operators should require passengers and crew to wear a face mask beyond 16 May 2022.

In other cases, starting 16 May 2022, aircraft and aerodrome operators should continue to encourage passengers and crew members, as part of their pre-flight communications as well as during travel through signage and announcements, to wear a face mask during flight as well as in the airport as a way to protect themselves and others and that they should respect others' decision to wear or to not wear a mask. In their communication, operators should highlight that people at high risk for severe COVID-19 are advised to wear an FFP2 respirator mask during the flight for their own protection. Experimental studies indicate that respirators are more effective than medical face masks both in limiting the release of infectious respiratory

[10] Regulation (EU) 2021/953 of the European Parliament and of the Council of 14 June 2021 on a framework for the issuance, verification and acceptance of interoperable COVID-19 vaccination, test and recovery certificates (EU Digital COVID Certificate) to facilitate free movement during the COVID-19 pandemic. Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0953

[11] A **medical face mask** (also known as a surgical or procedure mask) is a medical device covering the mouth, nose and chin ensuring a barrier that limits the transition of an infective agent between the hospital staff and the patient. They are used to prevent large respiratory droplets and splashes from reaching the mouth and the nose of the wearer and help reduce and/or control at the source the spread of large respiratory droplets from the person wearing the face mask. Medical masks comply with the requirements defined in European Standard EN 14683:2019+AC:2019.

droplets when worn by the infectious source and in limiting the exposure when worn by the exposed person.[12]

People with respiratory symptoms (coughing or sneezing) are strongly recommended to wear a medical face mask irrespective of the requirements on that particular flight.

Where the requirement to wear a mask is maintained, medical face masks (also named "surgical masks") should be considered the minimum standard to be used, unless stricter requirements are still imposed by some public health authorities. Children aged five years or below and people who cannot wear a face mask due to medical reasons should be exempted, while for children aged six to 11 years a risk assessment should be performed in accordance with WHO COVID-19 infection prevention and control living guideline: mask use in community settings.

Countries may advise on the use of face masks with the public health objective to reduce ongoing transmission of COVID-19 as one of a range of possible measures in confined public spaces, such as stores, supermarkets, transportation hubs (e.g. ports, airports, train/coach stations) and when using public transport.

Passengers should be reminded that, typically, face masks should be replaced after being worn continuously for four hours, unless otherwise advised by the face mask manufacturer, or when they become wet or soiled, and that they should ensure a sufficient supply of face masks for the entire duration of their journey.

Airport and aircraft operators should provide information regarding the proper use and removal of face masks, and the appropriate way to dispose of them, in their health safety promotion material. Additionally, airport and aircraft operators should consider making face masks available at airports and on board aircraft.[13]

Physical distancing

Physical distancing, alongside the proper wearing of face masks, has proven among the most effective non-pharmaceutical interventions to prevent SARS-CoV-2 (including VOCs) transmission. Physical distancing should be encouraged in all airport areas, the arrival terminal (with a particular focus for the meet and greet area) and around the baggage carousels. Signage and communication material should continue to encourage physical distancing where possible.

However, implementation experience has shown that in some cases, strict physical distancing measures in the aviation environment (airport and aircraft) is not operationally feasible and creates additional unintended bottlenecks in other areas, increasing the exposure times and leading to operational delays touching the flight time limitation requirements and, consequently, flight safety. Physical distancing could therefore be added to the use of face masks where operationally feasible and where it does not result in additional crowding in other areas. If physical distancing measures cannot be implemented, the use of face masks should be encouraged for passengers.

[12] Considerations for the use of face masks in the community in the context of the SARS-CoV-2 Omicron variant of concern, available at: https://www.ecdc.europa.eu/en/publications-data/using-face-masks-community-reducing-covid-19-transmission

[13] Additional information regarding the use of face masks is available in ECDC's technical report 'Using face masks in the community — Reducing COVID-19 transmission from potentially asymptomatic or pre-symptomatic people through the use of face masks' and ECDC Guidelines for the implementation of non-pharmaceutical interventions against COVID-19.

Other non-pharmaceutical interventions

The use of face masks should be complemented by other NPIs, which should be promoted by airport and aircraft operators, including:

— hand hygiene (including by using an alcohol-based hand-sanitising solution);

— respiratory etiquette by covering the mouth and nose with a paper towel or a flexed elbow when sneezing or coughing, even when wearing a face mask;

— limiting direct contact (touch) with surfaces; and

— waste material management, in particular as regards PPE and in accordance with the applicable international guidance[14] or, where available, national guidance.

Information to passengers

Aircraft operators should advise their passengers to consult the Reopen platform or similar platforms to consult the COVID-19-related measures at their destination.

Throughout their journey, passengers should regularly be made aware that they should adhere to the preventive measures in place at various areas in the airport and in the aircraft and to give proper consideration to the full range of preventive measures, irrespective of their vaccination status[15].

Passengers who refuse to adhere to the preventive measures in place should, however, no longer be refused access to the airport's terminal building, to the aircraft cabin, or disembarked, if the event takes place before the aircraft doors are shut, unless there is an obligation for such measures imposed by the national or local authorities.

Personal protective equipment for crew members and staff

Airport operators, aircraft operators and service providers/suppliers should provide the necessary PPE to their staff members and ensure that they are trained in its appropriate use:

— Staff members who interact with passengers directly (e.g. cabin crew members, security check agents, assistants for passengers with reduced mobility, cleaning staff, etc.) should be encouraged to properly wear a medical face mask or, where available and the legal framework permits, a higher-standard face mask (e.g. FFP2/N95/KN95 respirators).

— Staff should be encouraged to practise respiratory hygiene at all times as well as frequent hand hygiene, either via appropriate hand-washing or by applying an alcohol-based hand disinfectant. The use of a protective gown or a one-use plastic apron can be considered for tasks that may expose staff to splashes.

[14] https://apps.who.int/iris/bitstream/handle/10665/331488/WHO-2019-nCoV-Aviation-2020.1-eng.pdf
https://www.who.int/publications/i/item/water-sanitation-hygiene-and-waste-management-for-the-covid-19-virus-interim-guidance
https://www.iata.org/contentassets/df216feeb8bb4d52a3e16befe9671033/iata-guidance-cabin-operations-during-post-pandemic.pdf

[15] In this context, aircraft operators should consider the operational recommendations and guidance detailed in the latest revision of EASA SIB 2020-02, the *EASA Guidance on Management of Crew Members in relation to the SARS-CoV-2 pandemic*, and the *EASA Guidance on Aircraft Cleaning and Disinfection in relation to the SARS-CoV-2 pandemics*.

— Flight crew members should be encouraged to wear a face mask whenever interacting with, or in the proximity of, other people. Once they are in the flight compartment and the door is closed, flight crew members may remove their masks subject to their operator's policy and mutual agreement. Furthermore, the flight's crew members should remove their masks for emergency situations and whenever requested by appropriate authorities for official purposes such as identification or alcohol testing.

— Aircraft operators should have on board one or more Universal Precaution Kits (UPKs. Such kits should be used by crew members who are assisting passengers with COVID-19-compatible symptoms and in cleaning up and correctly discarding any potentially infectious contents.

Vaccination

Aircraft and airport operators, either individually or via their representation bodies, and in coordination with the relevant public health authorities, should continue to inform their staff members of the advantages of COVID-19 vaccination, especially the high effectiveness in preventing severe infection and death. Vaccination against SARS-CoV-2 reduces the risk for them, for their family members and for the people traveling who, for health reasons, may not be able to receive the vaccine or have deficient immune response. Where the national legal framework allows, operators could also consider developing a strategy for vaccination for all eligible staff members.

If regular testing for staff members who are not fully vaccinated or who are outside of the protection interval of the vaccine[16] is required at national level, airport and aircraft operators should facilitate access to regular SARS-CoV-2 testing for their respective staff members.

3.2. Before flight/at the airport

OBJECTIVE

To reduce the chance that any passenger with COVID-19 arrives at the airport. To ensure that passengers arriving at the airport are aware of, and adhere to, the preventive measures in place. To reduce the residual risk of virus transmission from potential asymptomatic contagious passengers.

Cleaning and disinfection

Airport operators should implement enhanced hygiene measures for passengers, crew members and staff, as well as enhanced facility cleaning. Similar measures should be implemented in General Aviation (GA) terminals.

[16] Joint ECDC-EU-OSHA Technical Document: Considerations on the use of rapid antigen detection (including self-) tests for SARS-CoV-2 in occupational settings, at: https://www.ecdc.europa.eu/en/publications-data/considerations-use-rapid-antigen-detection-including-self-tests-sars-cov-2

Airport operators and, where applicable, service providers/suppliers, should enhance the cleaning of public areas in terms of depth and frequency, subject to flight schedules. Airport operators should put a procedure in place to ensure that cleaning and disinfection is performed in a consistent manner and follows the principles and the ECDC guidance[17] below:

— Regular cleaning should be performed using standard detergents, followed by the disinfection of frequently touched surfaces (e.g. door handles, banister rails, buttons, washrooms, buses etc.), using an approved biocidal product.

— Studies have shown that plastic security-screening trays are frequently contaminated with respiratory viruses[18]; therefore, their cleaning should be intensified and hand disinfectant placed at the entry and exit of the security locations to encourage hand hygiene.

— Cleaning and disinfection activities should be performed in such a way as not to aerosolise the particles that have already set on the various surfaces (e.g. avoiding air-blowing procedures).

Aircraft operators should consider enhanced cleaning of their aircraft in accordance with the EASA SIB 2022-03 considering the risk assessment performed based on the risk of transmission in the country of departure and the country of destination and with the principles detailed in the EASA Guidance on Aircraft Cleaning and Disinfection in relation to the SARS-CoV-2 pandemic[19]. Disinfection should be considered as soon as operationally possible where the operator was informed that a positive COVID-19 case was confirmed after the flight.

Ventilation

Proper air ventilation should be ensured in all airport areas, including public washrooms. Heating, ventilation and air conditioning (HVAC) systems should be optimised in order to ensure a high rate of air change or, as appropriate, windows can be kept open for additional supply of fresh air.

The employment of air filters and increasing the frequency of the filter replacement, minimising the percentage of air recirculation and favouring the use of fresh air, where possible, in accordance with the ECDC guidance for ventilation of indoor public spaces should be followed[20].

Protective screens

Where airport/aircraft operator staff interact with passengers from a fixed location, such as check-in counters, ticketing, passport control, and information desks, protective screens could be considered in such a way as to allow the handover of the documents required but protect staff from the respiratory droplets of passengers and vice versa. Protective screens and workspaces should be carefully cleaned at frequent intervals, with an emphasis at points when the operators change.

[17] ECDC, Disinfection of environments in healthcare and non-healthcare settings potentially contaminated with SARS-CoV-2 https://www.ecdc.europa.eu/en/publications-data/disinfection-environments-covid-19

[18] Ikonen, N., et al., *Deposition of respiratory virus pathogens on frequently touched surfaces at airports*. BMC Infect Dis 18, 437 (2018). https://doi.org/10.1186/s12879-018-3150-5

[19] https://www.easa.europa.eu/document-library/general-publications/guidance-aircraft-cleaning-and-disinfection

[20] ECDC, Heating, ventilation and air-conditioning systems in the context of COVID-19- 1st Update https://www.ecdc.europa.eu/en/publications-data/heating-ventilation-air-conditioning-systems-covid-19

Check-in, boarding and disembarking

Whenever possible, priority should be given to self-services (e.g. boarding pass, baggage tag kiosks, baggage drop, automatic boarding pass scanners, and electronic passport control). Aircraft operators, in coordination with airport operators, should put measures in place to assist passengers in using self-check-in procedures in order to expedite the boarding process.

Before boarding, passengers should be reminded to ensure a sufficient supply of medical face masks for the entire duration of their journey.

Aircraft operators, in coordination with the airport operators and the relevant service providers/suppliers, should ensure efficient boarding processes and avoiding crowding, resulting in a lower risk of close contact. If the embarkation and disembarkation procedures are adapted, the aircraft operator should give proper consideration to the possible adverse effect on the aircraft balance in order to avoid an increase of aircraft tail tipping risk. Where busses are used for boarding or disembarkation, if physical distancing measures cannot be implemented, then the use of facemasks should be encouraged.

Transfer passengers

'One-stop' health screening arrangements should be developed using existing one-stop security arrangements as a model. In this model, passengers and property are not rescreened at transfer locations based on the mutual recognition of security measures between the States in the travel itinerary. A similar arrangement for health screening procedures may prevent unnecessary queuing points at passenger transfer locations.

Where testing of passengers is implemented, transiting passengers should not be tested in the country of transfer, with the exception of cases where passengers develop COVID-19-compatible symptoms during travel. If countries require information on the test results for transiting passengers, they should accept that testing can be done either before departure from the country of origin or upon arrival at the final destination, in which case information on positive cases can be exchanged via the digital Passenger Locator Form (dPLF) system.

Checking the Digital COVID Certificates

Many countries have currently suspended the use of COVID-19 certificates. Nevertheless, with the evolution of the epidemiological situation the use of COVID certificates may again become a valuable tool in fighting the pandemic.

In cases where a Digital COVID Certificate is being used, implementation experience has shown that multiple document verification created bottlenecks and unnecessary queueing, consequently additional opportunities of transmission. It is strongly recommended that document verification should be a 'One-stop' arrangement and to the extent possible in a touch-free manner. This is particularly the case for duplicative verifications at arrival, as this will create unnecessary queues. If verification has been reliably completed prior to departure, there is very little medical reason for additional checks later on through the journey.

Passenger Locator Form (PLF)

Several countries require completed Passenger Locator Forms (PLFs) before entering their territories due to the COVID-19 pandemic. Other countries have temporarily suspended the requirement for the completion of PLFs, while maintaining the possibility to reintroduce them to control the spread of new SARS-COV-2 VOCs.

Where a PLF is still required and electronic systems (digital PLF – dPLF) are available and accepted by the national public health authorities, aircraft operators should encourage their passengers to fill in their data for contact-tracing purposes before their boarding passes are issued.[21] Where international digital PLF systems such as the EU Digital PLF are available, States should consider using such harmonised solutions to facilitate travellers' compliance.

Where such systems for the collection of contact-tracing data are not available or temporarily fail, aircraft operators should provide, without undue delay and without prejudice to the applicable data protection requirements, the following minimum set of data to the relevant national public health authorities upon request for contact-tracing purposes:

— full name;
— date of birth;
— allocated seat number; and
— contact details, including working phone number (preferably mobile), email address and, if available, postal address.

This data set represents a minimum recommended extract from the currently available WHO, IATA, and ICAO passenger locator form (PLF).[22]

As several countries are, for the time being, relaxing the use of PLFs, aircraft and airport operators should maintain the capacity to provide air passenger data to public health authorities when requested to do so in cases of specific outbreaks (e.g. in the event of the emergence of a new SARS-CoV-2 VOC).

Baggage claim and exiting the arrival airport

Airport operators should implement all necessary measures to optimise passenger and baggage flow so that passengers can claim baggage and exit arrival terminals as quickly as possible.

It is strongly recommended that national governments simplify border control formalities by enabling contactless processes (e.g. relating to the reading of passport chips, facial recognition, etc.) or passenger flow management with digital solutions and setting up special lanes where feasible.

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[21] ECDC, Mobile applications in support of contact tracing for COVID-19 - A guidance for EU EEA Member States, https://www.ecdc.europa.eu/en/publications-data/covid-19-mobile-applications-support-contact-tracing

[22] https://www.icao.int/safety/aviation-medicine/guidelines/AvInfluenza_guidelines_app.pdf
https://www.iata.org/contentassets/07a397c1164d45e794c22949c75a95ac/public-health-passenger-locator-form.pdf
Also refer to the Commission Implementing Decision (EU) 2021/858 and ECDC document on Considerations relating to passenger locator data for the use of the PLF data by the national public health authorities for contact-tracing purposes.

3.3 Onboard the aircraft

OBJECTIVE

To reduce the residual risk of virus transmission on-board the aircraft, in the event of an (a)symptomatic passenger on-board.

All passengers

Aircraft operators should provide guidance material to their passengers regarding the application of the preventive measures on board, including as regards the appropriate use of face masks, ensuring hand hygiene, respiratory etiquette and the reduced use of the individual air-supply nozzles (unless otherwise recommended by the aircraft manufacturer).

In their cabin safety demonstration, aircraft operators should state that, in case of emergency, where passengers are wearing face masks, they should remove their face masks before using the cabin oxygen masks. Furthermore, aircraft operators should instruct their aircrew to remove their protective face masks in case of emergency in order to facilitate the communication of instructions to passengers.

Should oxygen-dispensing equipment (i.e. therapeutic oxygen, drop-down oxygen masks and quick donning masks) be used during the flight, this should be thoroughly disinfected afterwards.

Aircraft operators should have a sufficient number of medical face masks on board to provide to all their crew members and, in exceptional circumstances, to passengers, especially for long-haul flights. Operators should also consider putting measures in place to prevent passengers from queuing in the aisle or the galleys for the use of the lavatories.

Passengers should be reminded to remain seated in their allocated seat to ensure the integrity of PLF data.

Aircraft ventilation

Aircraft operators that use cabin air recirculation in their aircraft are recommended to either install, use and maintain HEPA filters according to the aircraft manufacturer's specifications, or to avoid the use of cabin air recirculation entirely, provided that it is confirmed that this will not compromise any safety-critical functions (e.g. avionics cooling, cabin pressurisation, etc.).

If the aircraft has an option for high-flow operation, the original equipment manufacturer (OEM) should be contacted for setting recommendations. If the aircraft in-flight operating procedure calls for packs to be off for take-off, the packs should be switched back on as soon as thrust performance allows[23].

Aircraft operators should consider reviewing their procedures for the use of recirculation fans in air-conditioning systems based on the information provided by the aircraft manufacturer or, if not available, by seeking advice from the manufacturer in order to achieve the objectives stated above. Air operators are recommended to dispatch aircraft from their main bases only when all packs are serviceable and with air

[23] https://www.icao.int/covid/cart/Pages/Aircraft-Module---Air-System-Operations.aspx

recirculation fans serviceable. Procedures should be in place for a best-case configuration in the event of unserviceability after dispatch.

Aircraft and airport operators should collaborate to ensure that passengers are not kept on board an aircraft without proper ventilation for longer than 30 minutes. In order to enhance the cabin air quality, it is recommended to use all packs and the auxiliary power unit (APU) bleed or ground air conditioning unit, depending on aircraft configuration and only in accordance with applicable procedures such as APU restrictions. Proper consideration should be given to the fact that external pre-conditioned air (PCA) is treated the same way in the aircraft as aircraft APU air. External air sources are identically processed, and the recirculated portion is filtered through a HEPA filter if the aircraft is equipped with such a system.

Passengers with respiratory or COVID-19 compatible symptoms

If, after take-off, a passenger shows symptoms that are compatible with COVID-19 or other respiratory infections, (e.g. fever, persistent cough, difficulty breathing or other flu-like symptoms), the cabin crew should make sure that the passenger concerned is wearing a face mask properly and has additional face masks available to replace the one being used in case it becomes wet after coughing or sneezing.

If a face mask cannot be tolerated, the symptomatic passenger(s) should be instructed to cover mouth and nose with tissues when coughing or sneezing. If the passenger is having fever and difficulty breathing, medical assistance should be sought and oxygen offered, as needed, to ensure care for any ill person.

4. Considerations regarding other travel-related measures

OBJECTIVE

To reduce the risk of translocation of a new SARS-CoV-2 VOC through air travel

The emergence of a new SARS-CoV-2 VOC depends on the virus's antigenic evolution and can happen at any time for as long as people keep becoming infected. A new SARS-CoV-2 VOC with more immune escape characteristics or higher disease severity would signal the need to reconsider travel-related measures. However, the ability of SARS-CoV-2 to be transmitted both in the pre-symptomatic phase and from asymptomatic cases makes it very difficult to contain. Modelling studies and the global experience from the response to the COVID-19 pandemic have shown that travel measures such as screening, quarantine and closing of borders have variable public health success, largely depending on the context, the timing and the completeness of the measures implemented. [24]

The risk-based principles described in the Council Recommendation (EU) 2022/107 could be an alternative to prevent the spread of new VOCs. Risk assessment and risk mitigation principles could be considered for passengers traveling within the EU as well as for those travelling to and from those third countries where reporting is reliable and the measures implemented achieve at least a similar level of control according to reports provided by reliable sources, e.g. WHO or national/regional public health authorities.

[24] Grépin KA, Ho T-L, Liu Z, et al. Evidence of the effectiveness of travel-related measures during the early phase of the COVID-19 pandemic: a rapid systematic review. BMJ Global Health 2021;6:e004537. doi:10.1136/bmjgh-2020-004537

In order to facilitate compliance by travellers, Member States should ensure that their travel-related measures are well communicated ahead of time and coordinated, and not imposed unilaterally, while being flexible and able to follow the emerging science findings.

5 Additional considerations regarding aviation personnel

OBJECTIVE

To reduce the residual risk of infection of aviation personnel and to avoid duplication of procedures.

The health and safety of staff is paramount, not only for their own protection but also to help prevent the spread of the virus and maintain safety. There is a comprehensive body of EU legislation to protect workers' health and safety at the workplace. Additional measures that need to be taken for COVID-19 may pose additional risks to staff in terms of higher physical and mental workload, longer working hours and increased administrative workloads. Workplace risk assessments in accordance with occupational safety and health legislation therefore need to be revised and occupational health and safety measures adapted in agreement with public health authorities and staff performing the tasks taking into account all types of risks.

Due to their safety and relevant functions, it is recommended that essential air transport staff, such as aircrew, airport operational staff and service provider/supplier operational staff receive the COVID-19 vaccine as soon as available in accordance with the national COVID-19 vaccine roll-out plans. National competent authorities and aircraft and airport operators should encourage uptake of vaccination by essential air transport staff, using approaches that are consistent with national policies and legal frameworks. Non-binding guidelines developed at EU level aim to help employers and workers to stay safe and healthy in a working environment that has changed significantly because of the COVID-19 pandemic. More information on occupational safety and health is available here:

- Overview: https://osha.europa.eu/en/themes/covid-19-resources-workplace
- COVID-19: Guidance for the workplace: https://oshwiki.eu/wiki/COVID-19:_guidance_for_the_workplace
- COVID-19: Back to the workplace Adapting workplaces and protecting workers https://osha.europa.eu/en/publications/covid-19-back-workplace-adapting-workplaces-and-protecting-workers/view
- Considerations on the use of rapid antigen detection (including self-) tests for SARS-CoV-2 in occupational settings https://www.ecdc.europa.eu/en/publications-data/considerations-use-rapid-antigen-detection-including-self-tests-sars-cov-2

Where the COVID-19 screening procedures are still in force, aircrew members, airport staff and service provider/supplier staff who can demonstrate that they have been fully vaccinated or recovered from a SARS-CoV-2 infection more than 10 days before but not more than 180 days before should be exempt from such screening.

As some aircrew or other staff members cannot or do not want to receive the vaccination, the equipment of common use used by aviation personnel such as computers, tablets, radio stations, headsets, etc. should be disinfected before being used by another staff member.

Wherever possible, airport operators should set up separate flows for aircrews in order to ensure that physical distancing from passengers can be guaranteed at all times.

Annex 1 — Health safety promotion material

General instructions

— Wash hands regularly for at least 20 seconds with soap and water or, where not available, use alcohol-based hand-sanitising solutions.

— Cover the mouth and nose with a tissue or flexed elbow when sneezing or coughing even when wearing a face mask (respiratory etiquette).

— Consider wearing a medical face mask even when it is not mandatory and ensure it is used and disposed of correctly. Replace the mask every four hours (unless instructed otherwise).

— Whenever feasible, observe at least one metre physical distancing.

— Do not touch surfaces unless necessary and avoid close contact with other people, as much as possible.

— Be kind to each other and respect the choice of other passengers.

Before leaving for the airport

— Do not travel to the airport if you have tested positive for COVID-19 in the past 10 days, if you have been placed in official quarantine or if you have COVID-19-compatible symptoms.

— Read your airline's health safety promotion material.

— Make sure you have sufficient medical face masks and hand sanitiser for your entire journey.

— Make sure you allow enough time for your journey to the airport, including security checks at the airport.

At the airport

— Contact airport staff if you have any questions or if you feel uneasy (they are there to help you).

— Practice hand hygiene and cough etiquette, and observe physical barriers or signs indicating recommended preventive measures. Where possible, maintain physical distancing.

— Consider wearing a medical face mask even when it is not mandatory.

— Collect your bags and exit the terminal building as soon as possible.

— Reduce the risk of virus transmission by minimising interaction with people in the arrival terminal.

On the aircraft

— If you have any questions or feel uneasy, ask a cabin crew member (they are there to help you in this new situation) and be nice to them .

— Watch the cabin safety demonstration so you know what is happening on your flight.

— Follow the sanitary instructions given by the on-board personnel and respect the choice of other passengers if the mask is not required.

— Reduce the use of the individual air-supply nozzles as much as possible.

EASA-developed Safety promotion material can be found available at the following links:

- https://www.easa.europa.eu/document-library/general-publications/easaecdc-process-passengers
- https://www.easa.europa.eu/document-library/general-publications/coronavirus-advice-airlines-and-their-crews
- https://www.easa.europa.eu/community/content/covid-19-support-material

ECDC-developed infographics and video materials regarding COVID-19 preventive measures can be found at the following links:

- https://www.ecdc.europa.eu/en/covid-19/facts/infographics
- https://www.ecdc.europa.eu/en/covid-19/facts/videos

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