

COVID-19

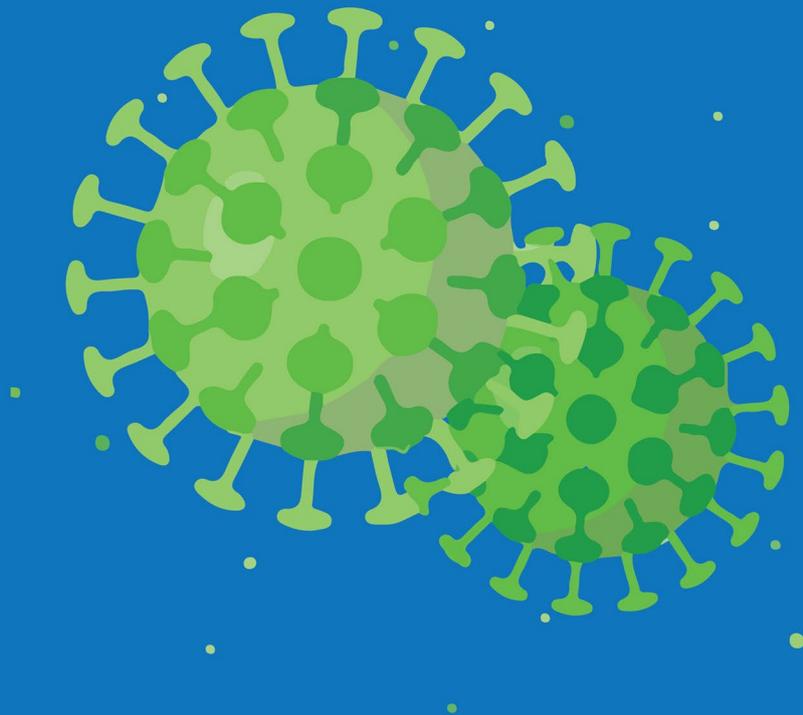
Disease caused by the SARS-CoV-2 virus

Issue date 10/01/2023

Addendum Issue no: 01

Guidelines in response to the worsening of the epidemiological situation

Addendum to the Aviation Health Safety Protocol implementing the Integrated Political Crisis Response (IPCR) COVID-19 Operational Conclusions



Suggested citation: European Centre for Disease Prevention and Control and European Union Aviation Safety Agency. Guidelines in response to the worsening of the epidemiological situation – Addendum to the Aviation Health Safety Protocol. 10 January 2023. ECDC: Stockholm; 2023/EASA: Cologne; 2023.

© European Centre for Disease Prevention and Control/European Union Aviation Safety Agency 2023

Reproduction is authorised, provided the source is acknowledged.

Contents

Executive summary	4
1. Context.....	5
2. Recommended measures in response to a worsening of the epidemiological situation	6
2.1 Pre-departure testing	6
2.2 The use of medical face masks	7
2.3 Cleaning and disinfection of aircraft.....	7
2.4 Vaccination of crew members	7
3. Recommended measures to enhance epidemiological and virological surveillance.....	8
3.1 Random testing upon arrival	8
3.2 Aircraft and airport wastewater surveillance.....	8
Additional scientific considerations.....	10

Executive summary

The measures detailed in this document are recommended to be followed by the national competent authorities, aircraft and airport operators, ground handling stakeholders and their crew members and staff to contribute to global SARS-CoV-2 genomic surveillance and mitigate the higher risk of infection and importation of SARS-CoV-2 from areas with severe worsening of the epidemiological situation such as is currently the case in China. The duration of applicability of the document is temporary in nature and should be aligned with the risk assessment of the epidemiological situation performed by ECDC and WHO.

This document provides operational recommendations regarding the implementation of a set of measures that has been agreed by the Member States in the context of a precautionary approach to potential severe worsening of the COVID-19 epidemiological situation as described in the [Council Recommendation \(EU\) 2022/2548](#) and are further outlined in this addendum. The measures as per the [IPCR decision](#) of 4 January 2023 are as follows:

- Airports and operators to recommend the wearing of medical masks or respirators to passengers and crew on flights to and from areas with severe worsening of the epidemiological situation such as is currently the case in China.
- Airports and operators to recommend the implementation of enhanced personal hygiene and health measures for both travellers and aircraft and airport personnel.
- Following the decision of the Member States, aircraft operators to introduce, for all passengers departing from areas with severe worsening of the epidemiological situation such as is currently the case in China to Member States, the requirement for a negative COVID-19 test taken not more than 48 hours (RADTs) or 72 hours (NAATs) prior to departure from such areas, and in line with ICAO standards for testing (operators having the responsibility to check pre-departure testing before boarding).
- Guidance to facilitate the random testing of passengers arriving from areas with severe worsening of the epidemiological situation such as is currently the case in China in the Member States, as appropriate, and recommending liaising with the health authorities for sequencing of all positive results.
- Airport operators and ground handling agents operating at airports with international flights to support local health authorities in sampling wastewater from airports and aircraft with a particular focus on the direct flights arriving from areas with severe worsening of the epidemiological situation such as is currently the case in China.

National aviation authorities, ground handling service providers, and aircraft and airport operators should give proper consideration to the recommendations of the latest version of the [EASA/ECDC Aviation Health Safety Protocol](#).

This document is part of the EU package in response to the severe worsening of the epidemiological situation along with the '*Ad-hoc guidance for the sampling of aircraft and airport wastewater for SARS-CoV-2 surveillance*'¹ published by the European Commission Joint Research Centre (JRC) and with the '*Pilot study outline for targeted genomic surveillance of SARS-CoV-2 in travellers in response to a worsening or unknown epidemiological situation in a third country*'² published by ECDC. The document, its observations, recommendations and conclusions are provided in the context of EU policy recommendations proposed by EU Member States as part of the IPCR Operational Conclusions and the [Health Security Committee \(HSC\) Opinion](#) and reflect best knowledge available at the time of writing, as compiled and analysed by experts at European Centre for Disease Prevention and Control (ECDC), the European Union Aviation Safety Agency (EASA) and European Commission services.

Depending on the evolution of the pandemic and future evidence and developments, in terms of risk assessment criteria, testing technologies or the evolution of vaccines, this document may require updating which may prompt further assessment by the Member States in their implementation efforts. The EU Integrated Political Crisis Response Arrangements (IPCR) will regularly review its recommendations to the Member States starting with mid-January and an update of the IPCR recommendations may also impact the recommendation defined in this document.

¹ <https://wastewater-observatory.jrc.ec.europa.eu/#/guidance>

² <https://www.ecdc.europa.eu/en/publications-data/covid-19-pilot-study-targeted-genomic-surveillance-sars-cov-2-travellers>

1. Context

On 13 December 2022, the Council of the European Union adopted [Recommendation\(EU\) 2022/2548](#) on a coordinated approach to travel to the Union during the COVID-19 pandemic and replacing Council Recommendation (EU) 2020/912. The Council Recommendation recommends the lifting of all COVID-19-related restrictions for inbound travellers to the EU, while at the same time setting criteria for travels in case of severe worsening of the epidemiological situation and addressing variants of concern/interest and emergency brake mechanism.

In December 2022 China modified its zero-COVID policy by removing many of the non-pharmaceutical interventions (NPIs) that were in use. This relaxation of non-pharmaceutical interventions coupled with low population immunity resulted in high levels of SARS-CoV-2 infections and increased pressure on healthcare services in China. From the existing data and information available, the ECDC published an assessment of the [Impact of surge in China COVID-19 cases on epidemiological situation in EU/EEA](#) on 3 January 2023. Given the higher population immunity in the EU/EEA, and the fact that the variants reported to be circulating in China have already been circulating in the EU/EEA, the current surge in cases of these variants in China is not expected to have a significant impact on the COVID-19 epidemiological situation in the EU/EEA. There are currently no data suggesting the emergence of new variants of concern in China. The ECDC assessment will be revisited as new information becomes available. However, in the absence of more detailed and timely data from official sources in China on epidemiological indicators and sequencing, the public health impact and the size and severity of the current surge of COVID-19 cases are difficult to assess. As new variants can emerge anywhere in the world and considering the circulation of other respiratory viruses such as RSV and influenza, strengthening of surveillance and genomic monitoring across the EU/EEA is required and response efforts should be coordinated, proportionate, and sustainable.

In this context, the Integrated Political Crisis Response (IPCR) Working Level Roundtable issued its COVID-19 [Operational Conclusions](#) on 4 January 2023. The Member States agreed on a coordinated precautionary approach in the light of COVID-19 developments in China, especially considering the need for sufficient, reliable data and the easing of travel restrictions by China starting on 8 January 2023. The Health Security Committee (HSC) of the European Commission has issued its [Opinion for a common EU approach in response to the COVID-19 situation in China](#) providing steps for a staged, phased and proportionate common approach. This is with the view of taking a precautionary approach and with the aim of detecting any new SARS-CoV-2 variant in the EU/EEA as early as possible.

The travel-related measures such as closure of borders or across-the-board quarantine previously imposed in the context of the COVID-19 pandemic have showed limited efficacy and have had a negative impact on citizens' rights to free movement and the functioning of the internal market. In this context, focused measures based on reliable risk assessment as well as SARS-CoV-2 genomic surveillance aiming at the enhanced monitoring of the spread of variants make more sense in the current epidemiological context of Europe.

Several Member States have been experiencing a high circulation of several respiratory viruses over the last months including respiratory syncytial virus (RSV), seasonal influenza, along with SARS-CoV-2 and others, which may reduce the resilience of their health care systems to respond to any further significant increases in SARS-CoV-2 case numbers.

This document aims to support Member States in implementing a coordinated approach to monitor the situation and reduce the risks related to the movement of people to/from the EU/EEA countries through air travel in the context of a precautionary approach to potential severe worsening of the COVID-19 epidemiological situation as described in the [Council Recommendation \(EU\) 2022/2548](#) as well as the actions proposed in the current HSC Opinion and the [IPCR operational conclusions](#). It is intended for use by decision-makers in the Member States, including public health authorities and civil aviation authorities, as well as aviation professionals, airlines, airports, and ground handling service providers.

This document is part of the EU package in response to the severe worsening of the epidemiological situation along with the '*Ad-hoc guidance for the sampling of aircraft and airport wastewater for SARS-CoV-2 surveillance*³' published by the European Commission Joint Research Centre (JRC) and with the '*Pilot study outline for targeted genomic surveillance of SARS-CoV-2 in travellers in response to a worsening or unknown epidemiological situation in a third country*⁴' published by ECDC.

The purpose is to provide guidance to EU/EEA Member States for implementing coordinated temporary measures, taking into account EU policy recommendations, as set out in the HSC Opinion and IPCR operational conclusions, and based on a review of the available evidence and modelling studies, to manage the risks associated with air travel and to monitor the COVID-19 epidemiological situation. The document makes reference to non-pharmacological interventions described in the most recent release of the Aviation Health Safety Protocol.

³ <https://wastewater-observatory.jrc.ec.europa.eu/#/guidance>

⁴ <https://www.ecdc.europa.eu/en/publications-data/covid-19-pilot-study-targeted-genomic-surveillance-sars-cov-2-travellers>

The measures detailed in this document should be considered by national competent authorities, aircraft and airport operators, ground handling stakeholders and their crew members and staff to mitigate the higher risk of infection and importation of SARS-CoV-2 from areas with severe worsening of the epidemiological situation such as is currently the case in China. A severe worsening of the epidemiological situation could be considered in situations such as, but not limited to, a sharp and sustained increase in cases and hospital admissions or deaths, particularly in the absence of reliable genomic monitoring data or if there is evidence of the emergence of new variants of concern. The duration of applicability of the document is temporary in nature and should be aligned with the risk assessment of the epidemiological situation performed by ECDC and WHO.

2. Recommended measures in response to a worsening of the epidemiological situation

2.1 Pre-departure testing

The common approach decided by the Member States in the IPCR includes that arriving passengers originating from China should carry a negative pre-departure COVID-19 test.

Entry screening has been demonstrated during the COVID-19 pandemic as well as other previous outbreaks to have a low preventive efficacy, while creating additional burden on the country of destination. On the other hand, exit screening has a higher efficacy in reducing international spread and uses already existing facilities in the country of origin. For this reason, in case of a rapidly changing or severe worsening of the epidemiological situation, pre-departure testing may be considered as a measure to reduce the risk of transmission on board aircraft and if implemented at a very early stage, also reduce the risk of importation of new cases and even new variants.

Testing methods used for the diagnosis of COVID-19 include Nucleic Acid Amplification Test (NAAT) such as RT-PCR, and rapid antigen detection tests (RADTs). RADTs aim to detect active infections (i.e. infectious individuals at the time of testing). RT-PCR may also detect non-infectious cases due to high sensitivity and thereby the possibility to detect the prolonged existence of viral ribonucleic acid (RNA).

RADTs have a number of advantages for screening used within the aviation environment due to their ability to detect active infection by currently circulating variants, the shorter waiting periods for results which enables testing closer to the time of departure, their high availability, and the lower cost of their use. However, PCR testing is still considered to be the most reliable diagnostic test.

To maximise the benefits of testing, RADTs should be performed not more than 48 hours before scheduled time of departure. For NAATs the test should be performed not more than 72 hours before the scheduled departure of the flight to enter the EU/EEA.

When defining their pre-departure testing procedure for incoming travellers originating from areas with severe worsening of the epidemiological situation, national competent authorities, in coordination with aircraft operators, should adhere to the principles detailed in the section 3.3 of the [ICAO Manual on COVID-19 Cross-border Risk Management](#).

When requiring pre-departure testing, national competent authorities should refer to the [EU Common list of COVID-19 antigen tests](#) agreed by the HSC, for the list of reliable antigen tests in the current updated version.

Member States should facilitate the verification of the travellers' health documentation and circumstances by providing proper verification means that would allow these processes to be automated, such as governmental portals. This would limit the interaction between the airport or aircraft operator staff with the passengers and consequently limiting the risk of spreading the virus as well as ensure limited operational impact. Where electronic verification is not possible, aircraft operators should verify the presence of a compliant negative COVID-19 test result in English or in the language of the Member State of arrival prior to boarding.

Where national competent authorities check the compliance of passengers coming from areas with severe worsening of the epidemiological situation such as is currently the case in China via a third country hub, they should define the appropriate personnel, such as customs personnel or health authorities' personnel, who should check the travellers on flights in provenance of major third country hubs. The provenance of passengers may be determined by several solutions, such as a passenger self-declaration, the filling of a PLF or by mandatory information to be handed over by the airline to the national/regional competent authorities.

Crew members traveling for duty should be exempted from the requirement to provide a negative COVID-19 test result.

Finally, due to the currently ongoing co-circulation of multiple respiratory viruses (SARS-CoV-2, seasonal influenza, RSV, etc) which cause severe disease to vulnerable groups, airport authorities in collaboration with public health authorities in Member States should consider recommending to the public to avoid non-essential travel when having respiratory symptoms. Otherwise, wearing a FFP2/N95/KN95 respirator should be recommended (see section 2.2. below).

2.2 The use of medical face masks

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

For this reason the use of medical face masks is among the most important recommendations of the [EASA/ECDC Aviation Health Safety Protocol](#), providing detailed information regarding the use of face masks, including categories that should be exempted from wearing face masks. At all times, Member States are advised to use the recommendations in the [Aviation Health Safety Protocol](#) in a risk based approach.

In particular for flights from areas with severe worsening of the epidemiological situation, the aircraft operators should recommend the passengers to wear a medical face mask or, an FFP2/N95/KN95 respirator to reduce the risk of onboard contamination and SARS-CoV-2 transmission. Similarly, operators should recommend their crew members to wear, for their own protection, a medical face mask or an FFP2/N95/KN95 respirator when interacting with passengers during their duty period on flights departing from such areas with severe worsening of the epidemiological situation. Where national competent authorities require a face mask onboard, the aircraft operators should ensure this requirement is properly implemented. Passengers exhibiting respiratory symptoms should be advised to wear a FFP2/N95/KN95 respirator during their whole stay and flight.

In addition, advice for passengers and crew members should be reinforced via multiple channels (e.g. information boards/posters, leaflets, public announcements made in airports and onboard aircraft) to give proper consideration to the use of face masks as well as to personal hygiene, including hand hygiene and respiratory etiquette, and waste management in particular for used medical face masks and napkins.

2.3 Cleaning and disinfection of aircraft

In particular for aircraft returning from areas with severe worsening of the epidemiological situation, EASA would like to highlight to aircraft operators the importance of enhanced cleaning based on the risk assessment in accordance with the provisions of EASA Safety Information Bulletin [SIB 2022-03](#) recommending that operators implement enhanced cleaning policies subject to risk levels.

2.4 Vaccination of crew members

Considering the co-circulation of influenza viruses and the severe worsening of the epidemiological situation in certain areas of the world, EASA and ECDC would like to reemphasise the importance of adherence to national guidelines on preventing severe outcomes of the infection, including death, and to recommend that aircraft operators and crew members give proper consideration to the applicable recommendations of the [EASA/ECDC Aviation Health Safety Protocol](#), and the [Joint EC, WHO and ECDC statement](#).

When operating in areas with severe worsening of the epidemiological situation and in order to reduce the risk of severe outcome, operators could consider as part of their risk assessment the vaccination status of their crew members, where such information is made available to the aircraft operators.

3. Recommended measures to enhance epidemiological and virological surveillance

3.1 Random testing upon arrival

For the purpose of SARS-CoV-2 genomic surveillance, national competent authorities in coordination with airport operators and/or ground handling service providers could consider, if deemed appropriate, random anonymous, unlinked testing of selected flights at international airports to allow for a better monitoring and understanding of circulation of SARS-CoV-2 variants and early detection of new variants. Targeted genomic surveillance of travellers upon arrival at airports can support global SARS-CoV-2 variant monitoring and provide evidence to help determine whether an increase in cases in a third country with inadequate genomic surveillance may be associated with new virus variants. ECDC developed a specific protocol for *'Pilot study outline for targeted genomic surveillance of SARS-CoV-2 in travellers in response to a worsening or unknown epidemiological situation in a third country'*, outlining procedures for recruitment, testing and reporting data from such an activity.

To this respect, the testing strategy used should allow for subsequent genomic sequencing of positive samples.

The testing should mostly focus on randomly selected arriving passengers above the age of 12 with a particular focus on passenger flights arriving from areas with severe worsening of the epidemiological situation such as is currently the case in China. The number of passengers to be selected in each airport to reach the target number of positive samples for sequencing will depend on the overall number of airports implementing the testing as well as the estimated SARS-CoV-2 prevalence among passengers. This will require periodic calibration as the situation evolves.

National competent authorities should coordinate with airport operators when defining the random testing procedure aiming to be performed without any negative impact on flight safety and with minimal or, preferably, no operational disruption of aviation activities while at the same time avoiding queuing or passenger clustering.

National competent authorities should coordinate with aircraft operators to provide early information to the arriving passengers regarding their potential selection for random testing.

Furthermore, the arriving passengers testing positive should be managed in accordance with the applicable national requirements for SARS-CoV-2 cases in regard to normal activities and isolation.

Crew members traveling for duty should be exempt from such random testing in order not to have a negative impact on their duty and resting times in accordance with the flight time limitations, and consequently on flight safety.

3.2 Aircraft and airport wastewater surveillance¹

Member States are encouraged to complement the other measures presented in this document by wastewater monitoring programmes specifically from airports with international flights and aircrafts arriving from China. Wastewater monitoring programmes at the specific international airports or in the areas where these international airports are located should complement national wastewater monitoring systems and could be integrated into municipal and regional wastewater monitoring system to enhance the knowledge regarding the circulation of SARS-CoV-2 variants. The ultimate goal is to monitor the epidemiological situation of arriving passengers and crew, and to use this information for policy decisions on potential further preventive measures. The purpose of the wastewater sampling at airports is twofold:

- To monitor the circulation of known SARS-CoV-2 variants among travellers with particular focus currently on those arriving from China; and
- To facilitate the early detection of any new virus mutations that may enter the EU/EEA.

Regarding the practical sampling of wastewater, the European Commission Joint Research Centre (JRC) in cooperation with Health Emergency Preparedness and Response Authority (HERA) and Union agencies, including EASA and ECDC, has developed, with the participation of national and industry experts, specific recommendations in the 'Ad-hoc guidance for the sampling of aircraft and airport wastewater for SARS-CoV-2 surveillance⁵'. The document provides practical options for sampling at aircraft and airport level as well as the main limitations of sampling.

Sampling should aim to be made without any negative impact on flight safety, cost and with minimum or, preferably, no operational disruption.

⁵ <https://wastewater-observatory.jrc.ec.europa.eu/#/guidance>

1. Scope of wastewater sampling:

Wastewater sampling should include airports with international flights and/or aircraft after long-haul passenger flights performing international flights with a particular focus on direct passenger flights arriving from areas with severe worsening of the epidemiological situation such as is currently the case in China.

2. Main principles:

- a. To perform wastewater sampling at airports in the least disruptive way to aviation stakeholders. The punctuality of operations and safety of operations and aviation employees must prevail in all cases.
- b. To ensure a coordinated response across Europe and internationally.

3. Responsibility for the wastewater sampling:

- a. Wastewater sampling and testing is carried out under the responsibility of the competent public health authorities of the Member States which are responsible for designating the qualified personnel authorised to perform the sampling. Sampling should be performed by properly trained individuals ensuring the integrity of the sample while ensuring that flight safety level is not adversely impacted as a result of the sampling. The ground handling service providers and aerodrome personnel are expected to facilitate the collection of samples. They should not be required to perform the sampling themselves unless proper training is provided by the national or local competent authorities.
- b. Coordination between the airport operator and health authorities in case of granting access to unauthorised persons to restricted areas of the aerodrome should be ensured as part of the facilitation process.

4. Wastewater sampling methods:

- a. The wastewater sampling methods are further detailed in the specific recommendations outlined in 'Ad-hoc guidance for the sampling of aircraft and airport wastewater for SARS-CoV-2 surveillance' developed by JRC.
- b. The selection of the sampling method should be done by the competent public health authorities in cooperation with the airport operator and ground handling service provider.
- c. Member States are encouraged to choose the method of wastewater sampling among the ones provided in the 'Ad-hoc guidance for the sampling of aircraft and airport wastewater for SARS-CoV-2 surveillance', depending on the operational context at each airport, including the airport capacity, the type of operation, and the need for additional equipment, and the financial capabilities of each Member State. The chosen sampling method should be agreed and shared with all the actors involved in the operation.
- d. Depending on the chosen method at each airport, if samples are collected directly from the aircraft wastewater tank, it is not expected that all flights bringing passengers from China are sampled. Rather a random sampling of flights should be performed.
- e. When no special facility or equipment is available, the method least disruptive for the airport, airline, and ground handling operations is sampling at the point where the lavatory service truck is unloaded into the sewage transfer points in the airport terminal. The estimated time for sampling wastewater using this method is a few minutes for each truck.

Additional scientific considerations

Wastewater testing is a method that allows the identification of SARS-CoV-2 and other pathogens from collected wastewater. The method is highly efficient in identifying and monitoring of SARS-CoV-2 viral titres, as it correlates with clinical presentation of new COVID-19 cases, with the trends showing 4–10 days earlier in wastewater than in clinical settings. However, it has limited value in detecting new variants that were not previously identified depending on several factors, such as how genetically distinct the new variant is and the number of different virus variants present in the wastewater.

The method is aimed at epidemiological surveillance at population level. It does not allow a proportionality equation to identify the number of positive individuals based on the virus concentration in the wastewater sample, nor to identify individuals with an active infection and it should not be used for such purposes.

In particular for aviation, when performing wastewater testing proper consideration should be given to the impact of the specific chemicals used for microorganism management in the aircraft lavatory or chemicals used in normal airport operations (e.g. de-icing solution, oils, etc) when apron sewage is common with wastewater coming from the airport lavatories. In this case, the chemicals may potentially reduce the viral load in the sample or even selectively inactivate certain variants distorting analysis results. Wastewater testing from aircraft has, however, proven to be an effective tool in airports across the world to monitor the circulation of numerous pathogens linked to the departure country of travellers when implemented at aircraft level.

Furthermore, for geographical correlation, the possible confounding effect of infected crew members and, in case of airport wastewater sampling, infected airport staff, should also be taken into account when interpreting the results of wastewater testing.