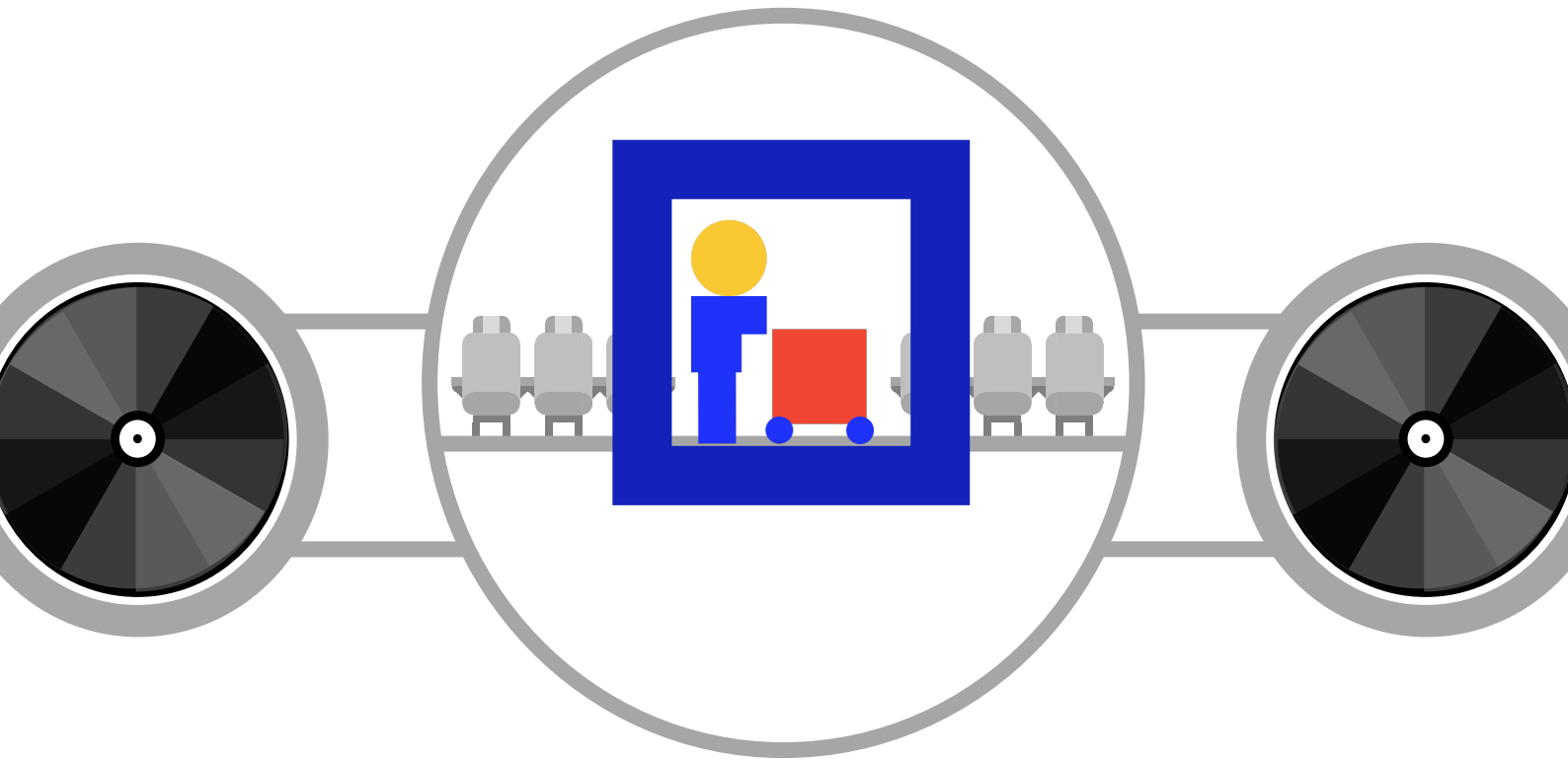




Guidance for Cabin Operations During and Post Pandemic

Edition 2 – 07 May 2020



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Revision record

Symbol	Meaning
□	Insertion
△	Amendment
⊗	Deletion

Revision table

Revision	Date	Section	Significant changes
Edition 1	22 April 2020	N/A	New issue
Edition 2	07 May 2020	2.1.2	Layers of protection from infection added , to highlight that protection is a multi-layered approach, incorporating distancing and PPE as and where appropriate.
		2.5	Crew positioning and flight duty limitations updated to include that exemptions may occasionally be granted by regulators subject to risk assessment and identification of mitigations.
		2.7.1	Crew Precautions during layover added .
		3.1.1	Masks section updated to include face coverings as an alternative. IATA recommends the use of face coverings by passengers and appropriate PPE for airport and airline staff.
		4.3	Using own cleaning materials updated to include that airlines may consider providing additional wipes for passengers and/or crew.
		5.2	Physical distancing updated - requirements may impact safety regulations e.g. seating of children next to guardians. These risks should be considered in the Airline safety risk assessment and mitigated appropriately.
		5.5	Passenger announcements updated to include safe and hygienic disposal of masks and tissues.
		5.7	Crew physical distancing updated to include double crew seats in risk assessment.
		5.10	Unruly passengers added to highlight potential new causes of unruly behavior.
		5.11	Carry-on baggage added – airport operators and/or security agencies may restrict the amount of carry-on baggage allowed through security searches and airlines should consider this within their risk assessment processes.
		5.12	Provision of First Aid onboard added to highlight the recommendation for Universal Precautions Kits to provide protection for cabin crew while administering first aid.
		5.13	Human factors/CRM issues added to highlight some issues which might require attention in risk assessment processes.



1. Introduction

As airlines resume passenger services during the ongoing Covid-19 Crisis, there are likely to be multiple public health, regulatory, training, operational and crew and consumer confidence challenges. This document is aimed at helping airlines consider the impact of these on their proposed operations and to help formulate alternative procedures until all restrictions are lifted.

The situation changes frequently, and regulations vary according to the routes being operated and the prevalence of the outbreak in each country.

Airlines should consider the following when preparing for cabin operations during and post pandemic, in order to determine effective risk mitigations, which support their workforce and passenger confidence:

- 1) The route/s to be operated, local infection rates and whether they are considered high, medium or low risk;
- 2) Any Health Authority restrictions at point of departure and destination;
- 3) Cabin crew health/quarantine restrictions at point of arrival, including any restrictions imposed on those who have recovered from infection;
- 4) Hotel availability, meals and crew transport arrangements;
- 5) Inflight Services products which can be delivered safely, appropriate to the level of risk;
- 6) Health Authority requirements for Personal Protective Equipment for cabin crew, its availability and the associated procedures for its use and disposal.

As time progresses, Health Authorities and regulators will determine which measures can be alleviated. Airlines should be prepared to review their cabin operations regularly to ensure compliance with regulations and facilitate a gradual return to more normal operations.

As regulations and recommendations change frequently, please go to

<https://www.iata.org/contentassets/df216feeb8bb4d52a3e16befe9671033/iata-guidance-cabin-operations-during-post-pandemic.pdf> for the most up to date version of this document.

2. Prior to operations

2.1 Procedural review and safety risk assessment

Prior to resuming services, airlines should review their standard operating procedures to identify whether any changes are required for both short term and long term. Where any change is related to safety regulation, these should be submitted to the regulator for acceptance and/or approval. Some regulators have issued generalized short-term exemptions to regulations, subject to airlines completing and submitting a risk assessment and/or exemption request.

All changes to procedures should be included in cabin crew training program which is required to be delivered before the crew member operates.

2.1.1 Risk assessment of routes

Operators may need to consider classifying each route for the level of risk of exposure to Covid-19 in order to determine whether additional mitigations are required in relation to services, policies or procedures.

The risk levels will change frequently according to the rate of local transmission, booked passenger load, the length of the flight/s operated and other factors.

The following table represents the basic criteria adopted by the [Civil Aviation Administration of China](#) to determine the risk levels associated with each flight and is shown for demonstration purposes.

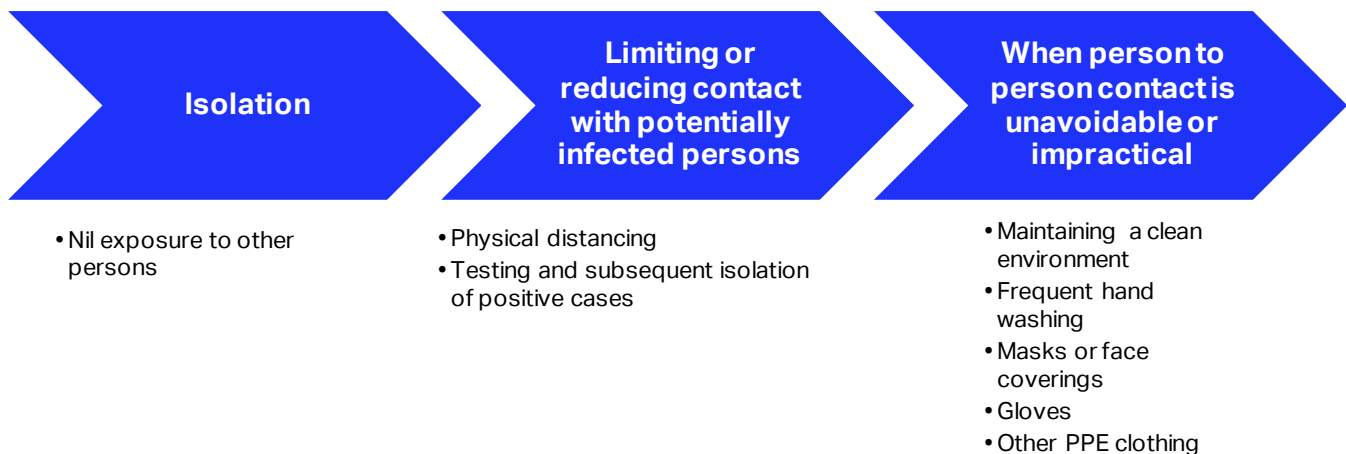
Airlines should consider their own risk assessment processes and criteria in conjunction with any local regulatory recommendations or requirements.

Example risk scoring criteria

(a) Confirmed cases at point of origin	0 > 50 Score = 1	51 > 100 Score = 2	> 100 Score = 3
(b) Duration of flight (hrs)	0 > 4 Score = 1	> 4 Score = 2	---
(c) Passenger load (%)	0 > 60% Score = 1	61 > 80% Score = 2	> 80% Score = 3
Risk level associated with flight	Score determined (a) + (b) + (c)		
Low risk	3 - 4		
Medium risk	5 - 6		
High risk	7 - 8		

2.1.2 Layers of protection from infection

- While transmission of a virus is ongoing, there are several layers of protection from infection according to what is possible to be achieved within the environment and appropriate to the circumstances.



Each of these measures might introduce some additional safety risks for airlines which should be identified and addressed within their risk assessment processes to identify the level of protection required in different situations and environments.

Airlines may be required by Health Authorities to adopt some of these layers of protection in various degrees and these requirements will likely vary frequently according to local transmission rates. Airlines should therefore plan their operating processes and procedures in such a manner as to be able to increase or decrease measures rapidly according to latest information available, which may vary by route, airport or country of operation.

2.2 Cabin crew qualification

Many states have published exemptions for cabin crew training during the initial stages of the Covid-19 Pandemic. Typically, such exemptions allow for the extension of cabin crew recurrent expiries for a predetermined period, subject to ongoing review.

The following might be considered as potential mitigations for extended cabin crew qualification if accepted by the regulator:

- Additional distance learning/e-learning for cabin crew refresher training;
- Interactive webinars or safety training sessions from Safety Training teams;
- Webinars on changes to existing services or onboard requirements;
- Enhanced cabin crew Safety Q&A at pre-flight briefings.

Where an exemption has been agreed, the number of cabin crew who are exempted for the period of the crisis will require recurrent training around the same time in the future and on a yearly basis. Operators should therefore consider this and identify a plan with their regulator in order to reduce the peak of training in the future and maintain the required number of trained and qualified crew in operation during peak travel times.

2.3 Cabin crew training

The airline's ability to provide training for cabin crew will be impacted by Government Health Authorities restrictions on movement, physical distancing and public health requirements. Alternative training methods such as webinars, distance learning and e-learning may need to be discussed and accepted by regulators.

2.3.1 Classroom training

If physical distancing techniques are required to be implemented within training facilities, classrooms should be arranged to maintain the required distance between delegates. The number of delegates per class may need to be reduced to ensure this is possible.

2.3.2 Use of practical training equipment and mock-ups

Any cabin crew training equipment used in practical demonstrations of procedures should be effectively sanitized between each use. This includes portable breathing equipment, oxygen masks, life vest mouthpieces and any other item which is used near the face of the delegate.

If physical distancing techniques are required to be implemented in training facilities, demonstration of evacuation procedures in cabin mock-ups may need to be restricted or limited.

A suitable cleaning and sanitization program for cabin crew training equipment and facilities should be implemented.

In some cases, temporary exemptions and alleviations to practical training elements have been granted by regulators, however these do not apply to initial training. Therefore newly recruited cabin crew are still required to undertake the practical training sessions and use the appropriate equipment.

2.4 Cabin crew scheduling

If a significant number of cabin crew have been exempted from recurrent training for any period of time, the operator may be required to consider risk mitigations when scheduling crew members, to ensure a mix of experience and validities among the cabin crew on any given flight.



While transmission of a virus is ongoing in the region of operation, the availability of cabin crew exposed to the virus may impact the number of cabin crew who are operationally fit for service. Airlines should consider this in their scheduling programs and may need to temporarily increase the number of standby cabin crew.

2.5 Crew positioning and flight duty time limitations

Cabin crew may need to position/deadhead before operating services and the availability of commercial flights is likely to be limited. Additionally, quarantine requirements may prevent crew from being able to leave the aircraft upon arrival and they may be required to return to base immediately.

Flight duty time limitations need to be considered carefully to ensure that cabin crew are suitably rested before operating the commercial flight with passengers. The following should be considered in the planning process:

- Where cabin crew are required to remain on board the aircraft during extended turnarounds, power, lighting and heating/cooling should remain available at all times.
- Seating allocation on commercial flights should enable cabin crew to rest as appropriate;
- When identified as positioning outside of the maximum permitted Flight Time Limitations, cabin crew should not be assigned any safety related duties onboard.
- △ • Exemptions may be granted by regulators and these are normally dependent on risk assessment and identification of potential mitigations aimed at preventing the onset of fatigue.

2.6 Quarantine requirements for crew

IATA maintains the Timatic system to collate and maintain up to date health and visa requirements globally.

<https://www.timaticweb.com/>

Where a country requires that incoming cabin crew are required to quarantine upon arrival, airlines may need to consider alternative operational methods in order to position outbound cabin crew back to home base immediately, subject to flying duty time limitations.

2.7 Cabin crew health precautions

Airlines should provide guidance and instructions to cabin crew aimed at preventing them from contracting Covid-19 while on duty and down route in areas where local transmission is evident.

Airlines should consider implementing procedures in order to prevent cases of infected cabin crew operating flights. These procedures may include self certification statements from cabin crew when reporting for duty or providing evidence of recent negative test results, where rapid testing is available.

Airlines may also need to consider additional procedures to check cabin crew health during extended flight duties, such as the provision of thermometers and regular temperature checks.

2.7.1 Precautions during layover

- Where cabin crew are required to rest down route in high risk locations, the following measures may need to be considered to limit potential for infection in crew members:
 - Crew transportation arrangements which separate crew members from public;
 - Avoidance of public transport;
 - Avoidance of public places and confinement to hotel room (isolation);
 - Wearing of masks between airport and hotel and when leaving hotel rooms;
 - Consumption of room service meals/refreshments only.

2.7.2 Cabin crew infected with Covid-19

Cabin crew members who display any symptoms suggestive of respiratory tract infection, even if mild, or have a fever with a temperature exceeding 37.5 degrees Celsius, or feeling unwell in any way, must be relieved from flight duties, self-isolate and seek medical treatment immediately.

Where testing is available, cabin crew with a positive test result should not be permitted to operate even if they are not displaying symptoms of the disease. This is to prevent further spread of infection and to reduce the risk of cabin crew members' symptoms developing while away from base.

- △ **Additional health restrictions may apply for repatriation of cabin crew members who become infected while on duty, including quarantine and/or reporting infection to Health Authorities for tracing and tracking.**

2.7.3 Cabin crew recovered from Covid-19

Health Authorities may impose restrictions on cabin crew who have previously experienced symptoms of Covid-19 and some countries may require a medical certificate or declaration before approving entry.

Cabin crew who have recovered from infection may experience a loss of smell and/or taste (anosmia). Airlines should consider the impact of anosmia on the cabin crews' ability to identify unusual smells within the cabin such as leakage of dangerous goods/chemicals and overheating/burning, especially where the number of cabin crew with anosmia on any given flight is significant.

3. Equipment

3.1 Personal Protective Equipment (PPE)

The provision and use of Personal Protective Equipment may be required by Health Authorities according to the perceived risk of infection in some areas of operation.

A safety risk assessment should be undertaken to determine the impact of PPE on cabin crew safety duties and any additional mitigations which might be necessary. Suggested risks include but are not limited to:

- Use of oxygen masks;
- Use of fire extinguishers and PBE;
- Additional flammability risks;
- Use of communication systems and procedures;
- Evacuation procedures and the need for cabin crew to be easily recognizable by passengers.

Where PPE is provided, cabin crew should be provided with appropriate guidance in the correct use of personal protective equipment issued to them, including when and how to wear, remove and replace them correctly and safely. Worn items should be safely disposed of as biohazard waste.

3.1.1 Face coverings and/or masks

- △ **IATA recommends the use of suitable cloth face coverings by passengers and appropriate PPE (e.g. masks) for airline and airport staff while infection transmission is ongoing.**

The cloth face coverings recommended are **not surgical masks or N-95 respirators. Those are critical supplies that must continue to be reserved for healthcare workers and other medical first responders.**



Airlines should review and publicize their policy on the use of masks and face coverings. This policy should be clearly communicated so that passengers are able to acquire the appropriate item in time for their flight. Passengers should be encouraged to provide their own suitable face covering to be shown to check in staff.

The publicized airline policy should include:

- What type of face covering is acceptable;
- When the face covering is required to be worn;
- What will happen to passengers who do not present themselves at the airport with the required face covering;

Masks or face coverings need to be removed for eating and drinking and airlines should reassure passengers that this is permitted, necessary and safe. Limiting the duration the covering is removed will help to minimize any potential risk of exposure.

Passengers using disposable masks or cloth face coverings should be reminded to dispose of them safely and hygienically.

Some passengers, such as those with breathing difficulties, dementia or autism may not be able to tolerate the use of face coverings or masks for a lengthy period, if at all. Airlines should consider this within their risk assessment process and identify whether additional questions are necessary at pre-screening stage, and whether any exceptions can be made within their policy. Where exceptions are made, other passengers may need to be advised of the reasons and additional steps to mitigate the risks in order to reassure them and prevent disputes between passengers.

If providing masks to cabin crew or permitting their generalized use, the operator should ensure that cabin crew are made aware of additional risks posed by frequent touching of the face to reposition masks, and that regular thorough handwashing is still required. Masks should be safely removed and replaced at regular intervals in accordance with health recommendations.

The use of masks by cabin crew onboard may introduce communication difficulties which might require management, for example passengers who read lips will not be able to do so, while crew and passengers may have difficulty in understanding what is being asked of them if they cannot see the full facial expression or movement of the mouth.

All masks and face coverings should be removed during an emergency situation which requires the use of oxygen or protective breathing equipment for firefighting. Pre-flight passenger safety briefings to passengers may need to include a reminder for passengers to remove face coverings in a depressurization incident.

Where masks are used on passengers showing signs of Covid-19 or experiencing breathing difficulties, their use might increase the patient's anxiety and may not be easily tolerated. Where this is the case, masks should always be worn by the crew member/s caring for the patient and by those in close proximity to them. Further guidance on dealing with passengers displaying symptoms of any communicable disease can be found in IATA's [Suspected Communicable Diseases Guidelines for cabin crew](#).

3.1.2 Gloves

The use of gloves by cabin crew during services is already commonplace but is not a substitute for regular and thorough handwashing, as contaminants on gloves can also be spread in the same manner as on bare hands.

Gloves should not be worn for long periods and should be [disposed of carefully and correctly](#) to avoid cross contamination, followed by thorough hand washing.

3.1.3 Over sleeves, aprons, gowns, goggles, visors and other PPE

Where airlines operate higher risk flights and are required, or choose to, provide full protective clothing and/or goggles or visors to cabin crew, the safety risk assessment should determine any impact such clothing may have on the cabin crews' ability to carry out both normal and emergency procedures. The following areas should be carefully reviewed to identify whether additional procedures are required to mitigate the risks:

- The flammability of protective clothing and any mitigations to protect cabin crew during firefighting.
- The impact of wearing visors, goggles or other headgear on the ability of the wearer to use portable breathing equipment, oxygen masks, interphone systems, or during evacuation should be included in the risk assessment.

3.1.4 Hand sanitizing products

Alcohol based hand sanitizing products can be used in addition to (but not in place of) regular and thorough hand washing.

Airlines that wish to add alcohol-based hand sanitizer to the items carried in galleys or installed in lavatories will need to request authorization from their civil aviation authority (State of the Operator) in accordance with the provision that is set out in Part 1;2.2.1 a) of the ICAO Technical Instructions, which reads as follows:

2.2 EXCEPTIONS FOR DANGEROUS GOODS OF THE OPERATOR

2.2.1 The provisions of these Instructions do not apply to the following:

- a) articles and substances which would otherwise be classified as dangerous goods but which are required to be aboard the aircraft in accordance with the pertinent airworthiness requirements and operating regulations or that are authorized by the State of the Operator to meet special requirements;

It is recommended that the request for authorization address the following:

- the classification and UN number of the hand sanitizer. For example, UN 1987, Alcohols, n.o.s. (ethyl alcohol mixture), UN 1170, Ethanol solution. However, the safety data sheet from the manufacturer of the hand sanitizer should be checked for the classification;
- the quantity of hand sanitizer in each container and the number of containers to be carried on the aircraft;
- what steps will be taken to ensure that the hand sanitizer is kept away from sources of heat or ignition;
- provision of information to crew members on the carriage of the hand sanitizer. For example, that crew members will be advised on the procedures through a bulletin or other appropriate method. Hand sanitizers containing alcohol must not be installed or carried adjacent to any source of heat, such as ovens, water heaters, Inflight Entertainment systems etc.

Passengers and crew may wish to carry their own hand sanitizing gels. Paragraph 2.3.5.1 of the IATA Dangerous Goods Regulations sets out the allowances for passengers and crew to have in their checked or carry-on baggage medicinal or toiletry articles, which may include articles containing alcohol as follows:

2.3.5.1 Medicinal or Toiletry Articles and Aerosols in Division 2.2

Non-radioactive medicinal or toiletry articles (including aerosols). The term "medicinal or toiletry articles" is intended to include such items as hair sprays, perfumes, colognes and medicines containing alcohols. Aerosols in Division 2.2, with no subsidiary hazard, for sporting or home use.



Note: The total net quantity of all such articles carried by each passenger or crew member under the provisions of 2.3.5.1 must not exceed 2 kg or 2 L and the net quantity of each single article must not exceed 0.5 kg or 0.5 L. Release valves on aerosols must be protected by a cap or other suitable means to prevent inadvertent release of the contents.

Alcohol-based hand sanitizer is acceptable under the provisions of 2.3.5.1, however, it should be noted that where passengers or crew wish to have the hand sanitizer in their carry-on baggage that the limit of 100 ml or equivalent per item for liquids and gels in accordance with the aviation security provisions applies.

3.2 Universal Precautions Kits (UPK)

IOSA CAB 4.2.3

The Operator SHOULD ensure all passenger aircraft in its fleet are equipped with one or more universal precaution kits for use by cabin crew members in managing:

- i. Episodes of ill health associated **with a case of suspected communicable disease**;
- ii. Cases of illness involving contact with body fluids.

One or two universal precaution kits per aircraft would typically be adequate for normal operations; **additional kits would be carried at times of increased public health risk (e.g. an outbreak of a serious communicable disease with pandemic potential)**. The contents of an aircraft universal precaution kit would typically include:

- Dry powder that can convert small liquid spill into a granulated gel;
- Germicidal disinfectant for surface cleaning;
- Skin wipes;
- Face/eye mask (separate or combined);
- Gloves (disposable);
- Impermeable full-length long-sleeved gown that fastens at the back;
- Large absorbent towel;
- Pick-up scoop with scraper;
- Bio-hazard disposal waste bag;
- Instructions.

4. Cleaning and sanitization

4.1 Cabin cleaning

All cabin sanitization products used must be compatible with aircraft components. Aircraft manufacturers provide operators with guidance on approved sanitization processes and cleaning fluids.

Airlines may need to consider additional cleaning and sanitization schedules in accordance with Health Authority requirements.

Increased frequency of inflight cleaning of lavatories by cabin crew may be necessary according to the risk level associated with each flight.

Note: IATA uses the term sanitization so as to differentiate more clearly between disinfection from infectious virus and bacteria and disinsection to kill or control insects which spread disease.

[EASA Interim guidance on Cabin disinfection](#)

[IATA Guidelines for cabin cleaning crew](#)



4.2 Crew rest compartments and bedding

Where crew rest compartments are installed, some airlines provide bedding items for cabin crew use. To minimize any possibility of cross infection, where pillows, cushions, sheets, blankets or duvets are provided, these should not be used by multiple persons unless coverings are laundered or changed.

Some airlines issue each crew member with their own provisions and the cabin crew members are responsible for ensuring that they are removed and bagged after use.

Other airlines provide bulk loading for crew rest area bedding items. Where this is the case, each cabin crew member should install their own bedding items before their rest period and remove them hygienically afterwards.

4.3 Passengers and/or crew using their own cleaning products onboard

The use of additional cleaning chemicals and products in the cabin by passengers and crew should be discouraged as they may interact with chemicals already used and may cause damage to fabrics, plastics and finishes.

- △ The use of commercially available non-bleaching antibacterial wipes may be acceptable and airlines might consider providing additional wipes for passengers and/or crew, to mitigate the potential for damage caused by non-approved cleaning materials and provide an element of consumer reassurance.

5. Cabin operations

5.1 Pre-flight checks

It is possible that the aircraft may have been in extended storage prior to cabin crew operating the flight. Cabin crew should conduct thorough pre-flight cabin checks and report any defects through the operator's usual reporting processes for rectification. Where necessary, the Minimum Equipment List should be checked to identify whether defective or missing item results in operational limitations.

5.1.1 Safety and emergency equipment

While maintenance checks before return to service may include a full maintenance survey of all safety and emergency equipment, there is an increased possibility of cabin crew identifying unserviceable, damaged or missing equipment during pre-flight checks. The operator should consider creating awareness to cabin crew to outline the added risks of defective equipment when an aircraft returns to passenger mode after being used for cargo purposes.

5.1.2 Cabin damage

If the aircraft has been used for the transportation of cargo and/or mail in the passenger cabin, some damage may have occurred in passenger seating areas. Cabin crew should be vigilant and check for damage which may affect safety such as life vests, seatbelts, tray tables, Inflight Entertainment system components, seat arm rests, seat cushions etc.

5.1.3 Galleys and lavatories

In galley areas, air may have accumulated in galley and lavatory water systems while the aircraft was stored, therefore a thorough purging of water systems is recommended until water flows freely, in order to avoid burns/scalds while in use.

5.2 Physical distancing

- △ The concept of physical distancing is that every person is considered to be infected and every person maintains a distance of 2 meters from others. This concept is familiar among the population as it is one of the measures imposed by governments in efforts to contain and slow the infection rate. It is however, just one of the measures enforced to the population of countries where infection is ongoing.

Travelers may expect the same physical distancing to be enforced on aircraft, however this concept does not reflect the additional screening (e.g. temperature check) of passengers before boarding, so that not all passengers are considered to be infected, nor does it consider the protections offered by the cabin environment.

On board aircraft, it is difficult to achieve 2 meter physical distancing, unless the aircraft loadings are so light as to be uneconomical and would require nil movement of persons within the aircraft cabin.

The cabin itself provides the following protections within the layout and systems:

- The physical barrier of seat backs;
- In most cases the seating arrangement does not provide face to face seating positions;
- The direction of airflow from ceiling to floor reduces forward and aft movement of air;
- The installation of HEPA filters on newer aircraft types to help clean recirculated air.

Other measures to limit possibility of infection can be adopted by airlines including for example:

- Increased cleaning programs for all passenger touch points in the cabin;
- Use of Sanitization materials effective against Covid-19;
- Managing passenger boarding and disembarkation carefully to reduce person to person contact and avoid passengers from obstructing others getting to seats;
- Limiting passenger movement during flight, including the use of lavatories;
- Alteration of inflight services to reduce movement in the cabin;
- There is information available to suggest that such use of face coverings is effective at reducing droplet spread, and this is of potential benefit where physical distancing cannot be achieved.

Where physical distancing is required, at least one lavatory should be blocked and dedicated for crew use in order to ensure it remains available for handwashing, as well as limiting the possibility of contamination from infected persons. Physical distancing techniques may also need to be applied to passengers waiting to use lavatories.

- **Mandating that airlines use empty seats to increase physical distance between passengers is not an effective health precaution on board aircraft** for the following reasons:

- It does not afford a distance of 2 meters around each passenger;
- There is little medical evidence of passenger to passenger spread on board aircraft;
- To comply with safety regulations, children are required to be seated adjacent to their guardians who are responsible for them during a depressurization, so that they can fit their oxygen masks for them while remaining seated with their seatbelt fastened, this is not possible if empty seats are mandated;
- Passengers who have a fear of flying, or young children often require the reassurance of a fellow traveler alongside them during take-off, landing and turbulence;



- Passengers traveling together within the same family group living at the same residence do not have to maintain a physical distance from each other elsewhere, therefore might not be willing to be separated while on board aircraft.
- Advance seat assignment and seat preferences/requests from travelers may not be able to be granted, resulting in increased possibility of disgruntled and/or unruly passengers.

Nevertheless, an Authority may require such measures and airlines may choose to leave empty seats between passengers. Where this is the case airlines should provide cabin crew with guidance on how to manage some of the risks posed by this requirement.

5.2.1 Boarding and disembarkation

Where physical distancing is required, cabin crew positions during boarding may need to be altered, for example in areas such as over wing exits where it is not possible to maintain a suitable distance from passengers during boarding.

It may be necessary to board smaller groups of passengers in order to increase space between them while they store carry-on baggage and take their seats.

Depending on passenger booking figures, airlines with pre-assigned seating procedures may wish to consider physical distancing requirements within seating assignment systems. Airlines who do not have pre-assigned seating should ensure cabin crew monitor passengers' seat choices during boarding, so that passengers are spread throughout the cabin as necessary.

Where passenger load and any weight/balance limitations allow, passengers may be encouraged to move to empty seats to increase physical distance between them.

During disembarkation, cabin crew may be required to limit the number of passengers standing to retrieve personal belongings and to manage the number of passengers disembarking simultaneously, in order to ensure physical distancing is possible while on steps/airbridges.

5.2.2 Cabin crew

Where physical distancing measures are required on high risk flights, cabin crew should be reminded to consider the following:

- Wherever possible, remain within their assigned area of responsibility;
- While eating or drinking, do not share meals, utensils or drinking containers;
- Reduce non-essential contact with passengers and/or their belongings;
- Reduce physical contact between each other and with other staff or members of public.

5.3 Passengers with disabilities

Some passengers with disabilities may be more vulnerable to infection and will likely seek additional reassurance that measures are in place to prevent transmission of infection from those who are assisting them, before they are able to travel.

Airlines should be mindful of this and may need to consider additional measures within their acceptance procedures for such passengers, so that precautions can be taken to protect them.

Where physical distancing techniques are required by Health Authorities, these may not be possible when passengers with disabilities require additional assistance such as seat transfers, use of wheelchairs or help with carry-on baggage.



Where onboard wheelchairs are provided, airlines should consider additional cleaning procedures to ensure they remain clean between each use.

5.4 Safety demonstration

Manual safety demonstration equipment should be sanitized before each use.

It is recommended that procedures be reviewed to ensure that cabin crew are not required to place demonstration equipment such as oxygen masks and life vest mouthpieces to their mouth and nose.

When demonstrating the use of oxygen masks, passengers should be reminded that protective facial masks if worn, should be removed.

5.5 Passenger announcements

- △ It is recommended that airlines include specific passenger announcements including guidance aimed at preventing the spread of infection. These may include cough/sneeze etiquette, any requirements for wearing **face coverings or masks** as recommended by local Health Authorities or airline policy, **and the safe and hygienic disposal of used tissues or disposable face masks.**

Passengers should be reminded within safety briefings of the need to remove facial masks in the event of a depressurization before fitting oxygen masks.

Additional announcements may be necessary where passengers are required to complete passenger locator information during flight for tracking and tracing of contacts.

5.6 Passenger health declaration

Some countries' immigration and health authorities require passengers to leave a health and travel history record. In those cases, IATA suggests the use of a card based on the Passenger Locator form and providing an additional section, the Health Declaration Card.

[Passenger locator form](#)

5.7 Cabin crew seating positions

- △ **Physical distancing is just one layer of preventing spread of infection (see 2.1.2 & 5.2). Where cabin crew occupy double crew seats, airlines should consider within their risk assessment processes whether the other layers of protection such as screening, self-declaration, regular crew monitoring/testing, use of face coverings/masks etc, and the limited time on the crew seat are sufficient to mitigate any risk of infection.**

Where physical distancing is required, the MEL published procedure for unserviceable crew seat may be able to be adapted.

Any change to crew seating positions during take-off and landing may need the approval of the regulator.



5.8 Inflight services

5.8.1 Provision of services

Meal and beverage offerings may need to be altered to comply with temporary health restrictions and physical distancing techniques and could vary by route. For example when operating between countries with low infection rates and limited spread, a standard service may be acceptable, while operating within, to or from a country with a high rate of infection, services may need to be limited.

Examples of services include:

Low risk routes:	Normal services
Medium risk routes:	Pre-packaged food services
High risk routes:	Pre-packaged food services and bottled water provided pre departure. Minimal inflight aisle service.

If airlines choose to offer services from galley areas to maintain physical distance between cabin crew, flight crew and passengers, they should ensure that these service procedures consider the following safety risk mitigations:

- Cabin crew require easy and immediate access to the cabin during an emergency;
- Further limitation of flight crew compartment access;
- Service equipment such as trolleys/carts set up at door areas need to be secured while in use and may need to be stowed rapidly during unexpected turbulence or any other emergency;
- Regular cabin safety monitoring activities should always be maintained;
- Passengers should not be permitted to congregate in or near the service areas. It may be advisable to call passengers by seat row/number for service;
- Passengers should remain seated with seatbelts fastened at all other times to reduce risk of injury during unforeseen turbulence.

5.8.2 Waste management

The Covid-19 crisis has significantly increased the volumes of healthcare wastes requiring specialised handling and treatment. It is incumbent on the sector and its regulators to ensure that cabin waste is well managed and uncontaminated cabin waste is not compounding this problem.

The primary mechanism of virus spread is respiratory droplets and although there is the possibility of surface contamination on cabin interiors and waste, this can be minimised by regular cabin interior cleaning and hand hygiene.

Cabin waste is already subject to legislation that ensures it is handled, stored and disposed appropriately to minimize pollution and disease risk. Nevertheless, local health authorities may impose additional restrictions on waste from international flights. It is not expected that the nature of cabin waste will significantly change as flights resume beyond discarded PPE (masks and gloves), empty sanitizer bottles and amendments associated to changes to in-flight menus (additional packaging, etc.) and that operational impacts for crew will be minimal.

5.8.2.1 Additional waste regulations

Although many countries already classify cabin waste from international flights as biohazardous due agricultural health concerns including Europe, US, Canada, Australia, New Zealand, etc. others may impose similar restrictions following the resumption of international flights.

These restrictions could include the need to disinfect waste bags; bans on reuse/recycling; need for double bagging; sealing; labelling and specialist handling and treatment including steam sterilization, incineration and chemical treatment.

It is recommended that airlines check with out-stations to determine if health authorities are requesting additional restrictions and develop appropriate response planning including liaising with cleaning and catering service providers and equipment procurement.

5.8.2.2 Flights with no symptomatic passengers/crew

WHO recommends that "routine operating procedures for cleaning aircraft, managing solid waste, and wearing PPE should be followed". Specialized treatment of this waste is not deemed necessary, but this should be confirmed with the local Health Authority.

Source: <https://apps.who.int/iris/bitstream/handle/10665/331488/WHO-2019-nCoV-Aviation-2020.1-eng.pdf>

5.8.2.3 Flights with symptomatic passengers/crew

All materials including part consumed meals, beverage containers and disposable items including used paper towels, tissues and PPE generated whilst treating or supporting the passenger or crew member should be placed in the biohazard waste disposal bag (Universal Precaution Kit) and sealed for specialist treatment. Service providers including the cleaning and catering company and the local health authority should be informed.

5.8.2.4 Recycling

Recycling of waste should be carried out in accordance with Health Authorities requirements.

5.9 Interfering with aircraft cabin

Passengers have been known to interfere with aircraft fixtures and fittings during time of pandemic, in attempts to reduce their personal risk of infection. Such behaviors have included the use of plastic sheeting over the seatbacks in order to create enclosed spaces, obstruction of air vents and the wearing of unusual clothing or head coverings.

Passengers should not be permitted to interfere with aircraft cabin fixtures in such a manner as to:

- obstruct access to emergency equipment:
- prevent cabin crew access to monitoring passengers and seating areas:
- prevent access to oxygen masks:
- impede evacuation routes for themselves or any other person.

5.10 Unruly passengers

- There are no anticipated changes to the way cases of unruly passengers should be handled. However, cabin crew should be made aware of some new issues which may be encountered onboard including:
 - Passengers may refuse to continue wearing a face covering inflight;
 - There may be an increase of disputes between passengers according to their ethnicity or country of residence;
 - Increased stresses imposed on passengers through airport processes and the overall travel experience may trigger more exceptional responses inflight to disputes or requests for compliance;
 - The impact of distancing and health screening of passengers through airports may slow the passenger transit and increase the likelihood of missed connections;
 - Fear of infection may cause more disputes between passengers due to noncompliance or poor hygiene etiquette, or the presence of symptoms similar to those associated with Covid-19.

5.11 Carry-on baggage

- During the initial phases of restarting operations, processing of passengers through airport central searches may be much slower than normal, as a lesser number of passengers can be processed at one time incorporating physical distancing techniques. As a result, airport operators and/or security agencies may impose restrictions on the amount of carry-on baggage which can be permitted through security checkpoints.

Note: The effects of this may not be evident in the early stages of restart due to the low number of travellers.

Airlines should consider the potential impact of such restrictions through their risk assessment processes, including point to point passengers and those who may be in transit from other airports with less restrictive policies.

Any change to policy should be communicated to passengers as soon as possible in order for them to be able to pack appropriately **before** arriving at the airport.

5.12 Provision of First Aid onboard

- During a response to a medical incident or emergency onboard, the cabin crew member/s dealing with the passenger will not be able to maintain any physical distancing techniques where required.

The provision of [Universal Precautions Kits](#) is an IOSA Recommended Practice in order to provide protection for cabin crew members in dealing with any medical incident.

Cabin crew should be reminded of the availability of and correct use of personal protection equipment such as masks, gloves etc when dealing with a medical incident, in order to minimize any risk of infection from Covid-19.

5.13 Human Factors/Crew Resource Management issues

- Throughout the Covid-19 crisis there will likely be many human factors issues which may need attention during cabin crew training and onboard operations. Some of these issues may adversely affect individual and group performance as well as introduce additional safety risks.

Example	Cause
Reduced knowledge and skills	Where cabin crew have been removed from the role for an extended period, they may become less familiar with tasks. Any extension of recurrent training validity may impact their current knowledge levels and multiple changes to procedures on a regular basis may cause confusion.
Increased risk taking	Where cabin crew are fearful of losing their job, they may take more risks in order to protect the operation.
Increased distraction from task	Bereavement or concerns relating to the health of an infected family member or close contact.
Reduced reporting of non-compliance	Cabin crew may be less confident to report non-compliance with procedures in case of consequences including loss of employment for themselves and/or others.
Increased fatigue	<ul style="list-style-type: none"> • Returning to work following a long period of inactivity and/or isolation. • Increased alertness to ongoing fears and concerns around employment, infection, protection, finances and news/media. • Changes in diet, nutrition and exercise routines.

6. References

The following list is not exhaustive and is aimed at providing airlines with a selection of information to support their risk assessments, mitigations and amended procedures.

Topic	Description
IATA Guidance material	IATA Air Transport & COVID-19 Coronavirus Carriage of cargo in cabin
Cabin sanitization and cleaning	IATA guidance for cleaning crew EASA Interim guidance on Cabin Sanitization World Health Organization operational considerations for managing Covid-19 cases or outbreak in aviation
Catering	Quality and Safety Alliance Inflight Services
Waste Management	World Health Organization operational considerations for managing Covid-19 cases or outbreak in aviation
Other	ICAO Security Covid website ICAO Safety Covid website World Health Organization operational considerations for managing Covid-19 cases or outbreak in aviation Collaborative Arrangement for Prevention and Management of Public Health Events in Civil Aviation (CAPSCA) US Center for Disease Control FAA SAFO 20009 : Covid-19: Updated Interim Occupational Health and Safety Guidance for Air Carriers and Crews. FAA – Flight Attendant Exemption (Safety Demo / Seating) EASA Covid Website EASA Guidance on management of crew members European Center for Disease Control CAAC preventing spread of coronavirus Transport Canada Covid Alleviations and Guidance Airline Pilots Association International Flight Crew resources