



## **Preventing Spread of Coronavirus Disease 2019(COVID-19) Guideline for Airports**

### **Fourth Edition**

In order to prevent and control the spread of COVID-19 and act in accordance with the working requirements to prevent imported cases and domestic epidemic relapse, airports could carry out high or low level risks management based on the features of imported cases and the risk levels of flights. Meanwhile, for the purpose of further strengthening the management of flights coming from countries or regions severely impacted by the virus, refining the prevention and control measures for health care workers at airports and security inspection personnel, and adding the handling procedures of passengers from severely impacted countries or regions transferring at domestic airports within 14 days, the fourth edition of the *Preventing Spread of Coronavirus Disease 2019 (COVID-19) Guideline for Airports* is developed.

#### **1. Standards for Risk Level of Airports and Principles of Disease Prevention and Control**

Airports shall be categorized into the two levels, namely high-risk and low-risk airports based on their flight operation, and differentiated prevention and control measures should be applied accordingly. Risk levels should be subject to dynamic adjustment in line with the situation of the outbreak.

If flights coming from heavily impacted countries (with over 5000 existing confirmed cases) landed in a local airport, the airport shall therefore be deemed as high-risk airport in terms of epidemic prevention and control.

#### **2. Body Temperature Screening and Emergency Handling**

Calibrated non-contact thermometers should be equipped in proper places of terminals, and passengers should be provided with necessary hand sanitizers and disinfection products. All arriving and departing passengers should have their body temperatures taken, and quarantine areas for feverish passengers should be set up.

Once feverish passengers are found, they should be required to wear facial masks, register personal information and their means of contact immediately. Medical departments of airports should be notified in a prompt manner for quarantine. Local health departments should also be informed, and supports should be given to them to take over the passengers concerned.



Flights carrying passengers with suspicious symptoms shall be parked in remote stands, and special passages for passengers should be set up.

### **3. Prevention and Control Measures for Security Inspection Personnel, Health Care Workers, Ground Cleaning Staff and Personnel Working at Check-in Counters**

According to risk levels of airports, personnel should refer to the attached table 1 and adopt different types of prevention and control measures. Attention should be paid to the following points:

3.1 The mask should be close to the face, covering the nose and mouth completely. When the mask is on or being removed, hands must not touch the out layer of the mask to avoid hands contamination. Once dampened by secretions or contaminated by other contaminants, facial masks must be replaced immediately with new ones, and hands should be cleaned with sanitizer both before and after the replacement.

3.2 All disposable protective equipment, after their use, should be placed in yellow medical waste bags. After the flight, they should be sprayed or sprinkled till fully soaked with chlorine-containing disinfectant (500mg/L-1000mg/L) before cleaning, and packed in a tightly knotted plastic bag for centralized disposal as medical wastes.

3.3 Alcohol-based disinfection wipes should be used for hand cleaning and disinfection. Hands shall be kept away from nose, mouth and eyes when it is not sure whether their hands are clean. When sneezing or coughing, one should try to lower the head or turn away from people nearby, and cover the mouth and nose with tissue or flexed elbow. After touching or disposing wastes, hands should be cleaned with soap or hand sanitizer under running water followed by hand cleaning and disinfection.

3.4 Reusable goggles should be promptly sterilized and dried every time after use. Goggles with an anti-fogging film should avoid being wiped with disinfectant. Instead, it is recommended that they be washed with clean water before being exposed to close-range direct ultraviolet lighting for over 30 minutes in rooms with no person inside.

3.5 For personnel working at document verification and body searching posts, their work uniforms should be subject to centralized high-temperature steam disinfection for 20 to 40 minutes or ultraviolet lighting for 1 to 2 hours when they are off duty for the day. 75% alcohol can be applied to wipe or spray clothes in case of emergency.

### **4. Airport Ventilation**

The control of air-conditioning systems and natural ventilation in public places such as terminals should be enhanced. Practical measures can be taken according to the structure and layout of terminals as well as local climate to improve air circulation. With moderate



temperature, doors and windows can be opened; where air-conditioning systems are used, full fresh air operation mode can be started as appropriate, and exhaust system should be turned on to keep the air clean.

## **5. Hygiene Requirements for Ferry Buses**

For ways of disinfection and selection of disinfectant for ferry buses, please refer to the *Technical Guidance for the Operation of Public Transport Vehicles*.

If conditions permit, ferry buses can operate at a low speed with windows open to maintain natural ventilation. By increasing the frequency of ferry buses, it can be ensured to the greatest extent possible that passengers could stand with at least one meter between each other and avoid crowding. Preventative disinfection needs to be performed after the daily operation, during which frequently touched surfaces such as hanging straps, handrails and seats should be wiped particularly with disinfectant. Tires do not need to be disinfected. If the ferry bus has carried passengers with suspicious symptoms, it should be subject to terminal disinfection by professionals.

## **6. Hygiene Requirements for Security Inspection Areas**

### **6.1 Low-risk Level**

The control of air-conditioning systems and natural ventilation in security inspection areas should be enhanced to keep the air clean, and civil aviation security inspection aisles should be equipped with relevant facilities to enhance ventilation. After the daily operation, areas and facilities such as security inspection sites and waste bins should be wet-cleaned, and all-round disinfection needs to be performed to keep the environment clean. Key areas (document verification counters, baggage packing areas, baggage plates, hand-held metal detectors) and security screening facilities should be disinfected, and hand sanitizers should be provided in screening aisles.

### **6.2 High-risk Level**

On the basis of low-risk level, the frequency of disinfection shall be increased for high-risk level airports.

## **7. Wastes Disposal**

The management of wastes sorting and the collection of used masks should be enhanced so that wastes could be cleaned in time. The cleaning of wastes containers such as trash cans should be strengthened, and disinfection of trash cans should be performed after garbage collection, either by spraying or wiping with 250mg/L to 500mg/L chlorine based disinfectant. When potentially contaminated wastes are found, related local departments



should be promptly contacted, and the wastes should be disposed of in accordance with the *Regulations on Medical Wastes Management*.

## **8. Disinfection of Airport Public Areas**

Disinfection of airport public areas should follow the *Guidelines for Prevention of Novel Coronavirus Infection in Public Places*, *Guidance to Disinfection Techniques in Public Places*, and *Guidance for the Use of Disinfectants*. It is recommend that airports of low-risk level should carry out preventative cleaning and disinfection as needed whereas airports of high-risk level should perform preventative cleaning and disinfection on a daily basis, and increase the frequency of disinfection as appropriate in key crowded areas.

### **8.1 Daily Preventative Cleaning and Disinfection**

Preventative cleaning and disinfection of airport public areas should be conducted.

8.1.1 Air disinfection: use natural ventilation where conditions allow; air conditioning ventilation should be enhanced, and exhaust fans should be cleaned and disinfected once a month. 250mg/L to 500mg/L chlorine disinfectant or 250mg/L chlorine dioxide spray could be applied for reaction for no less than 30 minutes, and 2% hydrogen peroxide with 10ml/m<sup>3</sup> ultra-low volume spray could be used in key areas for 60 minutes. Ventilation is needed when disinfection is completed.

8.1.2 Surface disinfection: crowded places and high-touch surfaces (such as self-check-in or check-in counters, document verification counters, buttons in elevators, and handrails) should be the focuses. 250mg/L to 500mg/L chlorine based disinfectant or 250mg/L chlorine dioxide spray could be used together when wiping.

### **8.2 Terminal Disinfection**

When suspected or confirmed cases, or passengers with suspicious symptoms are found in airports, terminal disinfection should be performed by professionals. The procedures of terminal disinfection shall follow the Appendix A of the *General Principle on Disinfection for Infectious Focus* (GB19193-2015). On-site disinfection personnel should ensure their personal protection when preparing and using chemical disinfectants. It is recommended to choose one of the following methods:

8.2.1 Hydrogen peroxide gas sterilization devices can be used for integrated disinfection of the air, the environment and surface of objects. The specific operation can be performed according to the equipment instruction manual.

8.2.2 0.5% peroxyacetic acid, 3% hydrogen peroxide, or 500mg/L chlorine dioxide can be adopted for air disinfection, by way of aerosol spray, with 10-20ml/m<sup>3</sup>. Windows should be closed before disinfection, and the surface and the space shall be evenly sprayed, starting from up-down, and then from left to right. Windows can be opened for ventilation after 60 minutes of reaction. After spray disinfection, the surface of objects may be wiped (swept) in the way of daily disinfection.



8.2.3 For key passenger areas, 1000mg/L to 2000mg/L chlorine based disinfectant can be applied by spraying or wiping for reaction of more than 30 minutes. If there are obvious contaminated objects, 10000mg/L chlorine based disinfectant shall be applied for more 30 minutes.

## **9. Handling Procedures of Passengers (with Normal Body Temperature) from Severely Impacted Countries or Regions Transferring at Domestic Airports within 14 Days**

Dedicated parking apron shall be set up for flights coming from severely impacted countries or regions, and remote stands should be used as far as possible. Any transferring passengers with normal body temperature from countries or regions severely impacted by the disease should be handled in accordance with the following procedures:

9.1 The airport should coordinate with local customs to set up a special waiting area, and provide passengers with basic daily necessities such as food. After the passengers' departure, preventative disinfection shall be performed in the quarantine waiting area.

9.2 Accompanying airport staff should wear surgical masks or masks of higher standards, disposable rubber gloves, goggles or face screens.

9.3 The airport should take such measures as simplifying boarding formalities, non-contact boarding, setting up special passages, and assigning designated person to monitor the passengers, in a bid to prevent cross-infection at the airport, and shall promptly provide the airlines flying the domestic segment and destination airport with information on the passengers, enabling them to make preparations for the proper handling of the incoming passengers.

## **10. Matters Deserves Attention Regarding Psychological Self-regulation for Front-line Personnel of Airports**

As the epidemic situation in China has gradually stabilized, the stage where front-line staff of airports may suffer collective stress reaction has passed with concern for the coronavirus continuing to decline, however psychological status is going to diversify at the moment among different population groups, leading to a more complicated phase for emotion change. Therefore, airports should enhance emotional care and guidance for front-line employees, by fully recognizing their hard work during the outbreak, timely commending those with outstanding contributions to the fight against virus and avoiding discrimination of those quarantined or confirmed with COVID-19 infection, so as to help build and strengthen employee' psychological sense of security. For staff with overreacted emotions or resistance behavior during work to contain the epidemic, they should be viewed from a humanistic perspective with enough understanding and comfort.



## **10.1 Build a Psychological Health Service System for Employees**

10.1.1 A working team on psychological care should be set up, which works with the three social support systems of information, material and emotion to ease the psychological stress of frontline staff.

10.1.2 Psychological health assessment should be carried out for front-line staff, with the focus on confirmed patients, close contacts (including those with fever) and those involved in epidemic handling and rescue, while others affected by epidemic prevention and control measures are considered normal group. In the meantime, airports need to work with local and industrial service resources on psychological health to provide self-service epidemic-related psychological stress tests and professional mental health assistance channels for the use by employees, and encourage those with abnormal emotions to seek professional help.

10.1.3 Science-based duty shift, on-duty and quarantine arrangement should be made for front-line staff, and to timely learn and help solve their life difficulties, and ensure good logistic support.

## **10.2 Methods of Psychological Self-regulation for Front-line Personnel**

10.2.1 Having a good understanding of one's own emotional experience

It is normal to have certain negative emotions during the epidemic, and these unusual emotions can in turn serve as a reminder to protect ourselves in a more timely and effective manner. Even if we find that we have some emotional experiences we are not familiar with, we needn't be stressful. It is normal to have these psychological changes. If we allow these reactions to occur and accept what is happening, rather than denying and rejecting them, positive changes will naturally ensue.

Where our negative emotions cannot be relieved through self-regulation, resulting in extreme fear and anxiety, even affecting our sleep and diet, it's recommended to seek professional help.

10.2.2 Acquiring the epidemic information with a proper attitude

The huge amount of information about the epidemic will leave us with a strong sense of anxiety and helplessness. We should avoid being influenced by emotionally charged information. We'd better to seek information from formal media and official websites, and never fall victim to certain rumors. Also, we should develop a proper plan on when to get information online, and in particular try to avoid exposure to influx of information at the time when we feel most fragile (such as right before bedtime). And last, we should avoid the vicarious trauma caused by information overload. We need to leave enough time for ourselves to listen our inner voice and be aware of our emotional changes. That can help us to turn panic into appropriate personal protection.



#### 10.2.3 Friendly and mutual social support

Social connection can calm us down. Communicating with others is the most effective way to relief our stress. On the one hand, through frequent communication with family and friends by telephone and the Internet, we can encourage each other, share our feelings and reinforce mutual psychological support; on the other hand, by making contact with colleagues in similar situations, we can lend our ears to each other and renew our connections, in a bid to building a psychological anti-epidemic alliance.

#### 10.2.4 Maintaining a stable and healthy lifestyle

Maintaining a regular working and resting schedule and having a sense of self-control are the good panacea for anxiety and panic. Although our ranges of activities are restricted, we still can take a positive look at life. We should, to the greatest extent possible, maintain our regular schedule and follow our usual daily routine, allowing us to return to our normal life. In addition, we should develop good living and hygiene habits, keep a healthy diet, have enough sleep, and never try to ease our tension through the use of tobacco and alcohol.

### **11. Proper Use of Personal Protective Equipment**

In order to provide guidance to front-line staff in civil aviation on how to correctly wear masks, hats, gloves, goggles and other protective equipment, and properly sanitize hands, our Office made a video, downloadable from the website [ams.caac.gov.cn](http://ams.caac.gov.cn) under Prevention and Control of Public Health Emergency.



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## Appendix 1

### Prevention and Control Measures for Security Inspection Personnel, Health Care Workers, Cleaning Personnel and Personnel Working at Check-in Counters

Personnel Type	Airport Risk Level	Surgical Mask	KN95/N95 Mask	Medical Mask	Goggle/ Face Screen	Disposable Protective Suit	Disposable Medical Rubber Gloves	Disposable Shoe Covers	Disposable Medical Cap
Personnel Working at Check-in Counters	Low	√					√		
	High		√		√		√		√
Ground Cleaning Personnel	Low	√			√		√		√
	High		√		√	√	√	√	√
Security Inspection Personnel	Low	√			√		√		√
	High		√		√		√		√
Health Care Workers at Airports	Low	√			√		√		√
	High		√		√	√	√	√	√
Emergency Handling Personnel				√	√	√	√	√	√