

**Hovione** 

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# COVID-19 Preparedness and Responses at HM

**Hovione Macau**

28 February 2020



# Agenda

Background

Education & Information Sharing

Site Entry Control (Staff & Visitors)

Workplace Hygiene Practices

Hygiene Materials Support

14-days Quarantine Measures

WHO Handrub Formulations

## Background

- *“Severe Respiratory Disease associated with a Novel Infectious Agent” refers to the cluster of viral pneumonia cases occurring in Wuhan, Hubei Province, since December 2019. According to information provided by the Mainland health authorities, symptoms of the cases were mainly fever while a few had presented with shortness of breath. Some cases were in serious condition.*
- *According to the risk assessment of the World Health Organization (WHO), the reported link of this cluster of pneumonia to a wholesale fish and live animal market could indicate an exposure link to animals. According to WHO, it is very clear from the latest information that there is at least some human-to-human transmission of the novel coronavirus. In addition, information about newly reported infections suggests there may be sustained human-to-human transmission. There is no vaccine for this infectious disease at the moment.*

*With the situations of Wuhan pneumonia outbreak in China, different measures are being taken in the company for Prevention of the pneumonia and Respiratory Tract infection*

## Facts about the disease

Source: Macau Health Authority - <https://www.ssm.gov.mo/apps1/PreventCONVID-19/en.aspx#clg17045>

- **Source of infection** : So far, source of infection are mainly patients of novel coronavirus infection. Asymptomatic patients are also possible source of infection.
- **Mode of transmission** : Mainly transmitted through respiratory droplets and contact. It is also possible to transmit the disease with exposure to high concentrations of aerosol in a relatively closed environment for a long time. Transmission via digestive tract still requires further clarification.
- **Susceptible population** : Generally susceptible.
- **Incubation period** : 1-14 days, usually 3-7 days.
- **Clinical features** : Fever, weakness and dry cough are the main manifestations; some may also develop symptoms like nasal obstruction, runny nose, sore throat or diarrhoea.
- **Severe cases** : Most cases develop dyspnoea and/or hypoxemia; severe cases develop rapidly into ARDS (Acute Respiratory Distress Syndrome), septic shock, metabolic acidosis and coagulation dysfunction. It should be noted that the course of severe and critical patients can be moderate to low fever or even no obvious fever.
- **Mild cases** : Mild cases may only have mild symptoms like low fever and fatigue, but no presentation of pneumonia.
- **Management and prognosis** : Treatment is mainly supportive. Some cases are in severe condition; fatal cases have been reported, and there are also cases recovered and discharged from hospital. Older patients and people with chronic diseases are at higher risk of developing severe illness.

# Education & Information Sharing

Background of the COVID-19 in China, local situation in Macau

<https://www.ssm.gov.mo/apps1/PreventCONVID-19/ch.aspx#clg17049>

News, Factsheet sharing

Hygiene and good practices information

**健康資訊-傳染病**  
Health Information - Communicable Diseases

**Prevent pneumonia and respiratory tract infection**  
**Travel advice**

The public should take heed of the preventive measures below when travelling outside Hong Kong:

- Avoid touching animals (including game), poultry/birds or their droppings;
- Avoid visiting wet markets, live poultry markets or farms;
- Avoid making close contact with patients, especially those with symptoms of acute respiratory infections;
- Do not consume game meat and do not patronise food premises where game meat is served;
- Adhere to food safety and hygiene rules such as avoiding consuming raw or undercooked animal products, including milk, eggs and meat, or foods which may be contaminated by animal secretions, excretions (such as urine) or contaminated products, unless they have been properly cooked, washed or peeled;
- If feeling unwell when outside Hong Kong, especially if having a fever or cough, wear a surgical mask, inform the hotel staff or tour escort and seek medical advice at once; and
- After returning to Hong Kong, consult a doctor promptly if having a fever or other symptoms, inform the doctor of recent travel history and wear a surgical mask to help prevent spread of the disease.

**Health advice**

To prevent pneumonia and respiratory tract infection, members of the public should maintain good personal and environmental hygiene. They are advised to:

- Perform hand hygiene frequently, especially before touching the mouth, nose or eyes; after touching public installations such as handrails or door knobs; or when hands are

**預防肺炎及呼吸道傳染病**  
Prevention of Pneumonia and Respiratory Tract Infection

洗手時應以視液和清水清潔雙手，搓手最少20秒  
Wash hands with liquid soap and water, and rub for at least 20 seconds

經常保持雙手清潔  
Perform hand hygiene frequently

20秒  
Seconds

**時刻保持良好的個人及環境衛生**  
Maintain good personal and environmental hygiene at all times

打噴嚏或咳嗽時應用紙巾掩蓋口鼻，然後徹底清潔雙手  
Cover your mouth and nose with tissue paper when sneezing or coughing, then wash hands thoroughly

當出現發燒或呼吸道感染病徵，應戴上外科口罩及盡早向醫生求診  
When having a fever or respiratory tract infection symptoms, wear a surgical mask and seek medical advice as early as possible

## Disease Prevention Guidelines (Macau Health Authority)

<https://www.ssm.gov.mo/apps1/PreventCONVID-19/en.aspx#clg17047>

## Site Entry Control

### Visitors / Auditors

- Personnel from China is restricted to visit HM
- Unnecessary visits are avoided

### Staff

- Staff visited China is required to be on 14-days Quarantine in Macau, before working on-site
- Staff lived in China is required to be on 14-days Quarantine in Macau, before working on-site  
*(HM arranged Accommodations to affected individuals for “Quarantine period” and “after Quarantine”)*
- Staff advised not to travel to China  
*(if doing so, another 14-days Quarantine is applied; with days deduction on AL / non-pay leave)*
- Staff not feeling well must report to Superiors / HSE department
- Avoid close physical contact, avoid mass gathering

## Site Entry Control

### Contractors

#### (Routine service)

- Personnel visited / lived in China is required to be on 14-days Quarantine in Macau, before working on-site  
*(Service companies are consulted on personnel with “re-visit to China” not to work on-site; unless another 14-days Quarantine)*

### Contractors

#### (non-routine service)

- Contractors visited / lived in China is required to be on 14-days Quarantine in Macau, before working on-site
- Non-urgent projects will be suspended to avoid / reduce the visit from the contractors
- Individual or urgent cases to visit site must be assessed and obtain approval from Management

# Site Entry Control

## Materials Delivery

- Delivery companies are informed in advance on the site entry control, with Health Questionnaire
- Body temperature check and Health Questionnaire to be checked by Guard at Site Entry (outdoor at Gates)
  
- Drivers are mandatory to have mask ON, and on hand-sanitizing
- Entry Registration process at the Gates (Open space area)
- De-registration (when leaving site) also carries out at Gates (Open space area)



# Workplace Hygiene Practices

## Controls at Reception

All staff and visitors enters the Site through **Gate 1 Reception Only**, for site entry requirements:

- All people coming to Hovione Macau needs to wear **mask** and at all times on-site
- **Health Questionnaire** must be filled in by all staff / contractors / visitors, and on weekly basis
- **Body Temperature** check applies to Every Personnel at Reception entering the site
- Two types of thermometers are available at the reception
  - The infrared thermometer will be primarily used to check the body temperature at the forehead
  - If the temperature is *at or below 35.0 °C* or *above 37.0 °C*, the “In-Ear thermometer” will be used for second temperature check to verify.
  - If the temperature *exceeds 37.5 °C*, the visitor will not be permitted to enter the site and recommended to consult medical attention. For staff, we will advise to go to the government health center or hospital for checking. HSE will follow up with the staff
- After the temperature check, all personnel needs to sanitize their hands (**sanitization Gel** dispenser at the reception)

The form is titled 'MEDICAL QUESTIONNAIRE 健康狀況問卷' and includes the following fields and instructions:

- Dept: \_\_\_\_\_
- Please fill in a questionnaire about your current physical condition (請填寫現時的健康狀況)
- Return to your Area Head after filling in (填寫後請交回你的部門主管)
- Date: \_\_\_\_/\_\_\_\_/\_\_\_\_
- Last Name: \_\_\_\_\_ Sex:  Male  Female (姓氏 性別 男 女)
- First Name: \_\_\_\_\_ (名字)
- Contact Number while in the Country (聯絡電話): \_\_\_\_\_
- Please answer the following questionnaire for Wuhan Pneumonia (SARS): (請填寫以下有關武漢肺炎的問題)
- City of residence (居住城市):  Macau 澳門  Hong Kong 香港  Mainland 大陸: City 城市: \_\_\_\_\_
- Please list the cities that you visited in the past 14 days: (請列出你過去 14 天到過的城市): \_\_\_\_\_ Date arrived at Macau: (抵達澳門日期) \_\_\_\_\_
- Did you come in contact with someone infected with Wuhan Pneumonia virus? (你是否曾與感染了武漢肺炎病毒的患者接觸?)  Yes 有  No 沒有
- Did you in contact in the last 14 days with people/ friends/ relatives who visited WuBei Province? (你最近 14 天內有與曾到過湖北省的人/ 朋友/ 親屬接觸嗎?)



# Workplace Hygiene Practices

## Workplace

- Staff with masks ON in office and workplace
- Offices to be in ventilation with doors / windows opened

## Meeting

- Masks to be ON
- Hand washing / sanitizing is recommended
- No. of people going to TOP30 is restricted to NMT 2 people from each department
- Group meetings are not promoted and advice to use telecom / Webex
- If meeting is conducted, all windows should be opened and if possible, door should not be completely closed
- Increase the frequency of the room cleaning with dilute bleach or antiseptic agents

# Workplace Hygiene Practices

## Canteen

- Temporary suspension usage to non-Hovione members
- Entry and Exit practice
  - Hand washing and sanitization must be done when entering Canteen
  - Mask should be used when entering Canteen and getting food.
  - When taking off the mask for taking lunch, it should be protected with tissue paper covering both side.
  - After eating, masks to be worn again.
  - Before leaving the canteen, it is required to sanitize the hands again
- Lunch time is being scheduled by departments and number of staff per time slot
- Each table will only restricted to 4 people, keeping social distancing (in general, 1 meter apart)
- When refilling the food or soup, it is required to use new utensils at the pantry table; with the mask ON
- Furnitures, floor, door and staircase will need to clean with diluted bleach (1:99) or antiseptic agents
- Breakfast service is suspended (*due to limited staff support at kitchen*)

# Workplace Hygiene Practices

## Toilets and Staff Changing Rooms

- Garbage bin in the toilet and changing room should have lid
- Toilet should be covered before flushing
- Hand Washing promotion

(<https://www.ssm.gov.mo/apps1/PreventCONVID-19/en.aspx#clg17288>)

- Cleaning frequency should be increased with diluted bleach or antiseptic agents
- Washing basin / drainage with U-shape drain to be ensured with water filled-in, and subjected to daily rinse with diluted bleach (recommended 1:99).

If not, a drainage cover is recommended to cover the drain point, and subjected to daily rinse with diluted bleach (recommended 1:99)

- Hygiene of Toilet

(<http://intranet.hovione.com/HM/HSE/ layouts/15/DocIdRedir.aspx?ID=N2KA7KAUHJXC-2108452057-91>)



# Workplace Hygiene Practices

## In General

- Carpet at the entrance should be spray with dilute bleach (recommended 1:49)
- Floor and furniture cleaning should use antiseptic agent (recommended 1:99)
- Door handles, especially with high flow of people must be cleaned with sanitizing agents frequently
- Staff is advised to clean their hands frequently and should not touch the eyes and nose



***Good Hygiene Practices for different Industries are available at the Macau Health Authority webpage:***

***<https://www.ssm.gov.mo/apps1/PreventCONVID-19/en.aspx#clq17047>***

## Hygiene materials support

- Each staff is offer with 100ml of solution every week



- Each staff will be given 10 masks per week (will be reduced to 5 masks, given on the stable supply from Macau government)
- Each staff can take up to 2 masks per day for general hygiene usage on site. (This does not include the operation that require to change mask in designed area, like clean room or potent labs)

*Ethanol hand sanitizing solution is made in house according to the WHO formula (last slides)*

# WHO-recommended Handrub Formulations

Reference: [https://www.who.int/gpsc/5may/Guide\\_to\\_Local\\_Production.pdf](https://www.who.int/gpsc/5may/Guide_to_Local_Production.pdf)

## METHOD: 10-LITRE PREPARATIONS

These can be prepared in 10-litre glass or plastic bottles with screw-threaded stoppers.

### Recommended amounts of products:

FORMULATION 1	FORMULATION 2
<ul style="list-style-type: none"><li>Ethanol 96%: <b>8333 ml</b></li><li>Hydrogen peroxide 3%: <b>417 ml</b></li><li>Glycerol 98%: <b>145 ml</b></li></ul>	<ul style="list-style-type: none"><li>Isopropyl alcohol 99.8%: <b>7515 ml</b></li><li>Hydrogen peroxide 3%: <b>417 ml</b></li><li>Glycerol 98%: <b>145 ml</b></li></ul>

### Final products

FORMULATION 1	FORMULATION 2
<b>Final concentrations:</b> <ul style="list-style-type: none"><li>Ethanol 80% (v/v),</li><li>Glycerol 1.45% (v/v),</li><li>Hydrogen peroxide 0.125% (v/v)</li></ul>	<b>Final concentrations:</b> <ul style="list-style-type: none"><li>Isopropyl alcohol 75% (v/v),</li><li>Glycerol 1.45% (v/v),</li><li>Hydrogen peroxide 0.125% (v/v)</li></ul>

## General information

Labelling should be in accordance with national guidelines and should include the following:

- Name of institution
- WHO-recommended handrub formulation
- For external use only
- Avoid contact with eyes
- Keep out of the reach of children
- Date of production and batch number
- Use: Apply a palmful of alcohol-based handrub and cover all surfaces of the hands. Rub hands until dry
- Composition: ethanol or isopropanol, glycerol and hydrogen peroxide
- Flammable: keep away from flame and heat



# Step by step preparation



1. The alcohol for the formula to be used is poured into the large bottle or tank up to the graduated mark.



4. The bottle/tank is then topped up to the 10-litre mark with sterile distilled or cold boiled water.

5. The lid or the screw cap is placed on the tank/bottle as soon as possible after preparation, in order to prevent evaporation.



2. Hydrogen peroxide is added using the measuring cylinder.



6. The solution is mixed by shaking gently where appropriate or by using a paddle.



3. Glycerol is added using a measuring cylinder. As glycerol is very viscous and sticks to the wall of the measuring cylinder, it should be rinsed with some sterile distilled or cold boiled water and then emptied into the bottle/tank.



7. Immediately divide up the solution into its final containers (e.g. 500 or 100 ml plastic bottles), and place the bottles in quarantine for 72 hours before use. This allows time for any spores present in the alcohol or the new/re-used bottles to be destroyed.

## Production and storage facilities:

- Production and storage facilities should ideally be air conditioned or cool rooms. No naked flames or smoking should be permitted in these areas.
- WHO-recommended handrub formulations should not be produced in quantities exceeding 50-litres locally or in central pharmacies lacking specialised air conditioning and ventilation.
- Since undiluted ethanol is highly flammable and may ignite at temperatures as low as 10°C, production facilities should directly dilute it to the above-mentioned concentration. The flashpoints of ethanol 80% (v/v) and of isopropyl alcohol 75% (v/v) are 17.5°C and 19°C, respectively.
- National safety guidelines and local legal requirements must be adhered to the storage of ingredients and the final product.
- Additional safety information is presented in Part B of this Guide.



## 14-days Quarantine Measures

- Staff on the 14-days Quarantine stays in the assigned accommodation
  
- Hygiene supply also provided to staff:
  - **Hand sanitizers**
  - **Masks**
  - **Wuhan Pneumonia Personal Hygiene Guidelines package**
  
- Staff to be in periodic communication with department responsible (updates on health status or other matters)

# Posters

**Epidemic Prevention**

**Guideline**

**AT HOME**

- Wash the hands after Eat and Toilet
- Cover the toilet board before flush
- Clean and disinfection the door handle
- Do some exercise
- Keep a regular schedule
- Clean the house everyday

**GO OUTSIDE**

- Wear the mask

**PUBLIC TRANSIT**

- Put on the mask when you take the bus
- Try don't talk
- Don't rub your eyes, nose and mouth
- Cover your mouth and nose with tissue when sneezing or coughing

**GO INSIDE**

- Wash your hands when you arrived home
- Change and clean the clothes
- Don't rub your eyes, nose and mouth after touch the door handle
- Wash your hands as fast as possible
- Mobile, Telephone, Keyboard, Toilet and Faucet switch are easily contaminated

**IN OFFICE**

- Wash hands and wear mask when out of the office
- Check the body temperature when you go in the office
- Receptionist should wear the mask
- Keep ventilation of the office
- Reduce meetings
- Door handle, Mouse, Stationery, Desk would use alcohol for disinfection
- Try not to talk when you take food outside and take off the mask in last moment

**IN OFFICE (Elevator)**

- Must to wear the mask
- Frequent disinfection of lifts, especially buttons
- Take the stairs instead of the elevator

## Useful Links

- Macau Health Bureau  
<https://www.ssm.gov.mo/Portal/portal.aspx?lang=pt>
- Macau Health Bureau (COVID-19 page)  
<https://www.ssm.gov.mo/apps1/PreventCONVID-19/pt.aspx#clg17458>
- CDC (Macao SS) - Guidelines on Measuring Body Temperature Correctly  
[https://www.ssm.gov.mo/docs/17588/17588\\_be95499d55da460cba2aabdff1406de8\\_000.pdf](https://www.ssm.gov.mo/docs/17588/17588_be95499d55da460cba2aabdff1406de8_000.pdf)
- CDC (Macao SS) – Guidelines on How to Wear and Remove a Surgical Mask for General Public  
[https://www.ssm.gov.mo/docs/17514/17514\\_dd4a5ecd556342389d0090d13d5be3e6\\_000.pdf](https://www.ssm.gov.mo/docs/17514/17514_dd4a5ecd556342389d0090d13d5be3e6_000.pdf)
- CDC (Macao SS) – Guidelines for Household Disinfection (Diluted bleach preparation and usage)  
[https://www.ssm.gov.mo/docs/17516/17516\\_f1ee08cb44ea4c4aa51bf417a6248cc5\\_000.pdf](https://www.ssm.gov.mo/docs/17516/17516_f1ee08cb44ea4c4aa51bf417a6248cc5_000.pdf)

## Useful Links

- Macau Health Bureau

<https://www.ssm.gov.mo/Portal/portal.aspx?lang=pt>

- Macau Health Bureau (COVID-19 page)

<https://www.ssm.gov.mo/apps1/PreventCONVID-19/pt.aspx#clg17458>

# Thank you for your attention



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