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## **COVID-19**

### **Prevention and Control**

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### **Data Sources**

- Hong Kong SAR government's disease-related information
- Various universities' disease-related information
- COVID-19 Prevention Handbook
- The latest medical literature

**This material is only organised on the basis of current limited information.**

**Please pay attention to the latest development every day.**

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**What are viruses associated with respiratory infection?**

Viruses associated with respiratory infection refer to viruses taking the respiratory tract as the portal of invasion, proliferating in the epithelial cells of the respiratory tract, leading to local infection of the respiratory tract or lesions of tissues and organs other than the respiratory tract.

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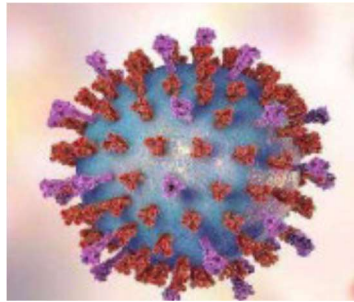
**What are the common viruses associated with respiratory infection?**

Mainly include: **influenza virus** of the Orthomyxoviridae family, parainfluenza virus of the Paramyxoviridae family, respiratory syncytial virus, **measles virus**, mumps virus, Hendra virus, Nipah virus and human metapneumovirus, **rubella virus** of the Togaviridae family, **Rhinovirus** of the small RNA Viridae family, **SARS coronavirus** of the Coronaviridae family, etc. Moreover, Adenovirus, reovirus, coxsackie virus and ECHO virus, herpes virus, etc., can also cause respiratory infections.

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## Etiological Characteristics and Preliminary Epidemiological Situation

- Coronaviruses are non-segmented **single-stranded positive-stranded RNA viruses**, belonging to the Orthocoronavirinae sub-family of Coronaviridae of Nidovirales. According to serotype and genomic characteristics of coronary, the virus sub-family is divided into four genera: alpha ( $\alpha$ ), beta ( $\beta$ ), gamma ( $\gamma$ ), and delta ( $\delta$ ).
- There are 6 coronaviruses known to have infected humans, including 229E and NL63 of the  $\alpha$  genus, and OC43 and HKU1 of the  $\beta$  genus, Middle East respiratory syndrome-related coronavirus (MERSr-CoV) and severe acute respiratory syndrome-related coronavirus (SARSr-CoV).
- The coronavirus isolated from the lower respiratory tract of patients with unexplained pneumonia in Wuhan this time is a **novel**



**coronavirus.**

- It is named because of the protuberances on the viral envelope, which are shaped like a corolla.

## WHO – SARS-CoV-2 Variants of Concern (VOC)

Table 2: Summary of phenotypic impacts\* of variants of concern

WHO label	Alpha	Beta	Gamma	Delta	Omicron
<b>Transmissibility</b>	Increased transmissibility <sup>12</sup>	Increased transmissibility <sup>13,14</sup>	Increased transmissibility <sup>14,15</sup>	Increased transmissibility <sup>14,16,17</sup>	Increased transmissibility. <sup>1-4</sup>
<b>Disease severity</b>	Possible increased risk of hospitalization <sup>18,19</sup> , possible increased risk of severe disease and death <sup>20,21</sup>	Possible increased risk of hospitalization <sup>19</sup> , possible increased in-hospital mortality <sup>22</sup>	Possible increased risk of hospitalization <sup>19</sup> , possible increased risk of severe disease <sup>23</sup>	Possible increased risk of hospitalization <sup>24,25</sup>	Possible reduced risk of hospitalization and severe disease <sup>5-8</sup>
<b>Risk of reinfection</b>	Neutralizing activity retained <sup>26</sup> , risk of reinfection remains similar <sup>27</sup>	Reduction in neutralizing activity reported; T cell response elicited by D614G virus remains effective <sup>28</sup>	Moderate reduction in neutralizing activity reported <sup>29</sup>	Reduction in neutralizing activity reported <sup>30-32</sup>	Increased risk of reinfection <sup>11,33</sup>
<b>Impacts on diagnostics</b>	Limited impact – S gene target failure (SGTF), no impact on overall result from multiple target RT-PCR; No impact on Ag RDTs observed <sup>34</sup>	No impact on RT-PCR or Ag RDTs observed <sup>32</sup>	None reported to date	No impact on RT-PCR or Ag RDTs observed <sup>35</sup>	PCR continues to detect Omicron. Impact on Ag-RDTs is under investigation: Results are mixed as to whether or not there may be decreased sensitivity to detect Omicron. <sup>1,8,36-38</sup>

\*Generalized findings as compared to previously/co-circulating variants. Based on emerging evidence, including non-peer-reviewed preprint articles and reports, all subject to ongoing investigation and revision.

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#### Possible Route of Transmission

- droplet transmission
- contact transmission
- There is scientific evidence of airborne transmission in certain environments.

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## **Clinical Characteristics of Pneumonia Caused by COVID-19 Infection**

### **Clinical Manifestations**

- Fever, cough, runny nose, sore throat, fever and chills, nausea, vomiting, diarrhea, weakness of limbs and headache.
- Some patients even have **breathing difficulties such as shortness of breath**, while some will suffer from pneumonia or severe respiratory infections. **These are more serious cases.**
- Some patients have mild symptoms in the initial stage and may have no fever, and they usually recover after 1 week.
- **Most patients have a good prognosis**, while a small number of patients will be critically ill and even die.

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## **Clinical Characteristics of Pneumonia Caused by COVID-19 Infection**

Symptoms: Patients infected with Omicron variant strains are more likely to have symptoms such as runny nose, sneezing, sore throat, headache and limb weakness.

Most **critically ill patients** are the elderly, those with underlying diseases and those who are obese. There are also fatal cases in children and adolescents group caused by Omicron variant strains.



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**How to be well-prepared:**

<https://chp-dashboard.geodata.gov.hk/covid-19/zh.html>

[https://www.coronavirus.gov.hk/chi/index.html#What\\_is\\_COVID-19](https://www.coronavirus.gov.hk/chi/index.html#What_is_COVID-19)

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- Centre for Health Protection's Health Advice on Home Quarantine (VIDEO)

- <https://www.youtube.com/watch?v=UYk1Z5XT20c>

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## Important Contact Information

Home Affairs Department (HAD) [“StayHomeSafe” Scheme Hotline](#)

[1833 019](#)

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- If the **result of the rapid antigen test is positive**, patients should **follow the instructions of the Centre for Health Protection and receive a nucleic acid test** (Family members may collect and deliver the deep throat saliva samples on behalf of patients, or through the arrangement of testing companies) **or register in the government-designated system** after the launch of the relevant system.
- When using the rapid antigen test kit, you should complete all steps according to the instructions in the test kit. Please also handle the used test kit properly and dispose of it in a covered rubbish bin.

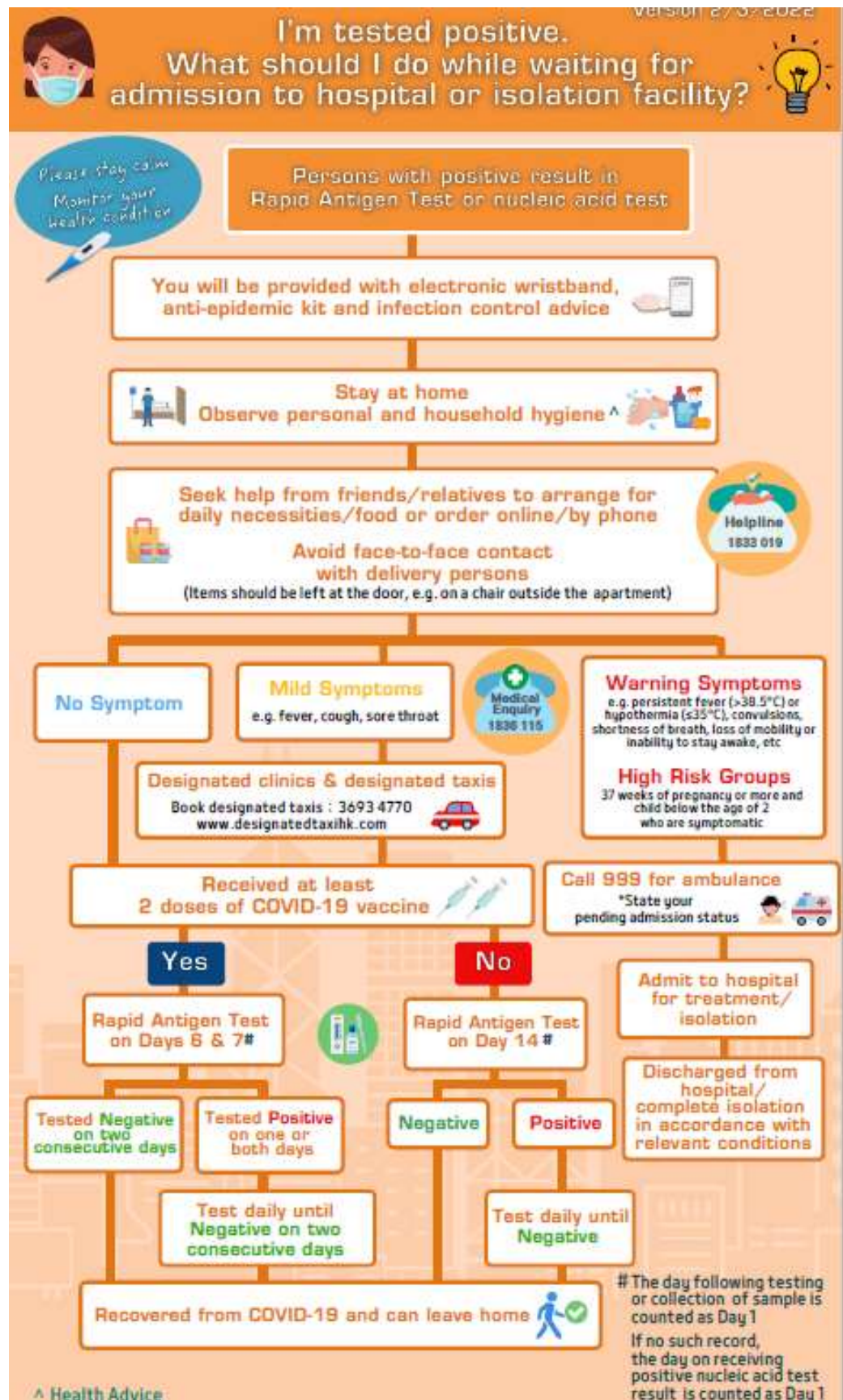
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**People with positive or preliminary positive** COVID-19 nucleic acid test results will receive an SMS notification about the result, together with a **request to fill in an electronic form** ([www.chp.gov.hk/cdpi](http://www.chp.gov.hk/cdpi)) to submit information, including those on family members living in the same household. This is to facilitate the work of the CHP such as epidemiological investigation and arrangement of hospital admission, isolation and quarantine.

The determination of **close contacts** will take into consideration relevant details of the situation. In general, tracing period is counted from two days before symptom onset date of the confirmed case; for asymptomatic case, it is counted from two days before the date of collection of specimen which tested positive. Close contacts refer to:

- Persons who live with the confirmed case in the same household
- Persons who have had face-to-face close contacts with the confirmed case (especially when the confirmed case did not wear a mask, such as when having meals together)

In order to curb the spread of COVID-19, safeguard people's health and protect the healthcare system from collapse, the Government has launched the "[StayHomeSafe](#)" Scheme. Close contacts and household contacts of close contacts who are deemed appropriate after assessment will undergo home quarantine for 14 days and four days respectively.





# I'm tested positive. What should I do while waiting for admission to hospital or isolation facility?



Please stay calm  
Monitor your  
health condition

Persons with positive result in  
Rapid Antigen Test or nucleic acid test

You will be provided with electronic wristband,  
anti-epidemic kit and infection control advice



Stay at home

Observe personal and household hygiene



Seek help from friends/relatives to arrange for  
daily necessities/food or order online/by phone

Avoid face-to-face contact  
with delivery persons

(Items should be left at the door, e.g. on a chair outside the apartment)



No Symptom

Mild Symptoms

e.g. fever, cough, sore throat



Warning Symptoms

e.g. persistent fever ( $>38.5^{\circ}\text{C}$ ) or  
hypothermia ( $<35^{\circ}\text{C}$ ), convulsions,  
shortness of breath, loss of mobility or  
inability to stay awake, etc

High Risk Groups

37 weeks of pregnancy or more and  
child below the age of 2  
who are symptomatic

Designated clinics & designated taxis

Book designated taxis : 3693 4770  
[www.designatedtaxi.hk](http://www.designatedtaxi.hk)



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**What should I do if I feel like I have been infected with the COVID-19 virus?**

- Persons who are suspected of being infected with the COVID-19 virus should go to **designated medical institutions** for investigation, diagnosis and treatment. When seeking medical treatment, you should tell the details about the infection and medical treatment process truthfully, especially about your recent contact history with pneumonia patients or suspected patients, contact history with animals, etc.
- Please do remember to **wear a surgical mask throughout the diagnosis and treatment process** to protect yourself and others.

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**Appointments must be made by telephone before visiting designated clinics in various districts**

**Who can visit the designated clinics?**

For those who have received a notification of a preliminary positive result and awaiting hospital admission, if mild symptoms of infection (e.g. sore throat and fever) are present and the patients wish to seek relevant treatment, they may make an appointment by telephone for visiting a nearby clinic.

**Can I visit a designated clinic if I am tested positive by Rapid Antigen Test (RAT)?**

No for the time being, but you may do so when the registration system is launched. Those who are tested positive by RAT may undergo testing as specified by the Government to confirm as necessary.

**Opening hours?**

Designated clinics are open from Monday to Sunday, including public holidays, from 9 am to 1 pm and from 2 pm to 5 pm.

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