



MINISTRY OF HEALTH
SINGAPORE

MH 34:24/8

MOH Circular No. 04/2023

9 February 2023

See Distribution List

UPDATES ON COVID-19 PATIENT CARE MODEL AND CASE REPORTING

This Circular provides the latest updates to the COVID-19 National Sorting Logic, Patient Care Model and MOH case reporting requirements. Healthcare providers should reference this Circular when managing COVID-19 patients with effect from 13 Feb 2023.

Patient Care Model

2. **Categories of patients requiring testing.** Protocols 1, 2 and 3 will no longer be used to manage patients and close contacts. With vaccination, most COVID-19 infections tend to be mild, leading to uneventful recoveries. SARS-CoV-2 testing is no longer routinely required for every patient with acute respiratory infection (ARI) symptoms, although doctors-in-charge can choose to do so as part of the diagnostic workup. **If testing is clinically indicated, the default choice should be the Antigen Rapid Test¹ (ART).** However, patients may still be offered PCR testing if the clinic is participating in the COVID-19 surveillance framework for genomic analysis.

For avoidance of doubt, testing of patients with ARI symptoms is mandated for **patients who are medically vulnerable and would benefit from early COVID-19 diagnosis and treatment** (i.e. paediatric, pregnant, geriatric, dialysis-dependent and immunocompromised patients). If the ART is negative, an additional PCR test should be considered, especially if clinical suspicion is high, as the PCR is a more accurate test.

¹ ARI Sentinel Surveillance testing is carried out at polyclinics and will be expanded to include some GP clinics. ARI Sentinel Surveillance would require a PCR test.

In addition, **patients with travel history in the 7 days prior to the onset of ARI symptoms are recommended to be tested.** This contributes to MOH’s continued surveillance of the global COVID-19 situation.

For healthcare provider-administered ARTs, healthcare providers should communicate the results to patients in alignment with other point of care testing.

3. **Patient Management in the Community**². Doctors-in-charge³ should generally manage patients with ARI symptoms and/or COVID-19 positive patients in the community, and only escalate clinically unstable patients to Accident and Emergency Departments (A&E). For clinically stable patients, doctors-in-charge should exercise clinical judgement in managing these patients in the community. Where clinically indicated, doctors-in-charge should also **perform ART, prescribe oral anti-virals (OAVs)**⁴ and provide return advice and/or schedule follow-up consultations (**Figure 1**).

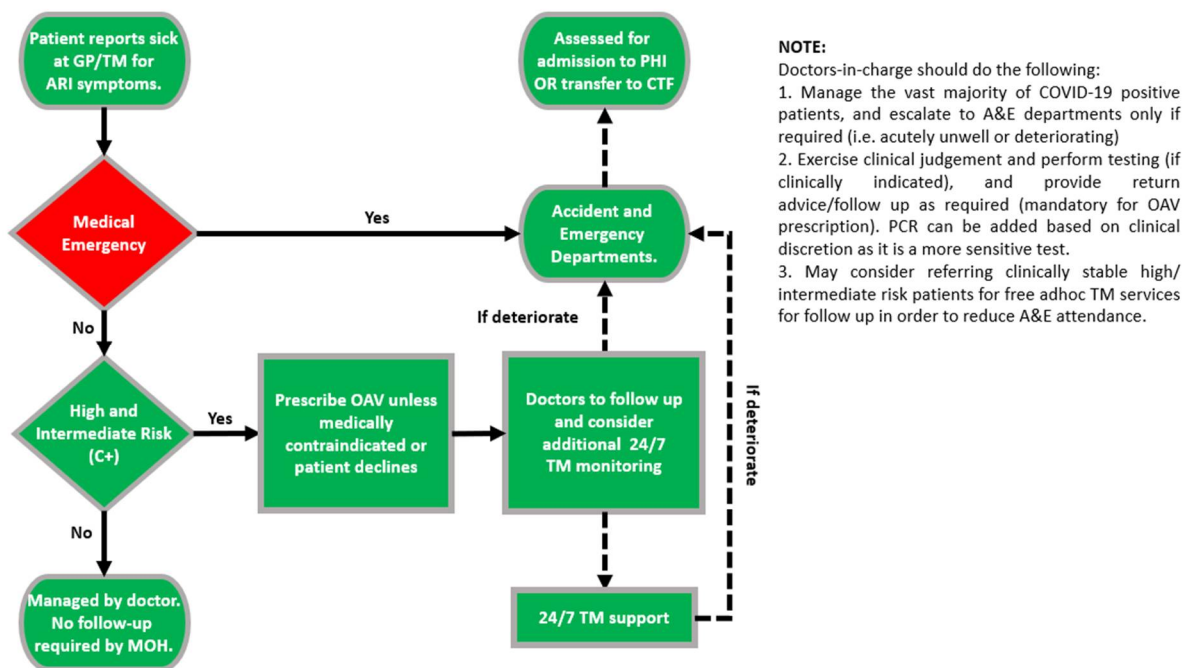


Figure 1. Patient Care Model from 13 Feb 2023.

For conveyance from a PHI inpatient ward/ED to a CTF, PHIs should follow existing decant workflows and email CMDData@moh.gov.sg to submit requests for transfer to a facility using the standard decant template, or leverage existing structured communication platforms between PHIs and the assigned facility for in-pro, with arrangement of CMTG conveyance through contact at 6435 4060.

² For patients with ARI symptoms and/or COVID-19 positive patients in Nursing Homes and MSF Homes, Recovery-in-situ (RIS) should be the default option where possible.

³ Doctors-in-charge refers to registered medical practitioners who provide clinical care for persons with health concerns as well as continual care for known medical conditions. This includes General Practitioners (GPs), Polyclinic doctors and Specialist doctors who are involved in patient care and management.

⁴ Refer to the MH 34:24/8 - MOH Letter to Primary Care Physicians dated 8 July 2022 “Prescription of COVID-19 Oral Therapeutics for Clinically Eligible Patients”.

4. **Availability of 24/7 Ad-hoc Telemedicine (TM) Services to High/Intermediate Risk Patients.** Doctors-in-charge should prescribe OAVs to stable high/intermediate risk patients unless medically contraindicated or when patients decline. They may consider referring these patients for free 24/7 ad-hoc TM services for follow up to reduce A&E attendance. The risk criteria for the adult, paediatric and pregnant patients have been updated to reflect prevailing disease severity rates, given the current population vaccination profiles (**Annex A**). Doctors-in-charge may refer patients as “**High/ Intermediate Risk AND needs 24/7 ad-hoc TM support**” through PRPP/ iConnect/ SRS/ EMR for submission of COVID-19 tagging and indicate the reasons for referral. This ad-hoc TM service will be free for a timebound period of 6 months till 13 Aug 2023.

5. **COVID-19 Positive Paediatric patients (including neonates).** Neonates (less than 1 month old) and infants younger than three months can be managed in the community by primary care physicians. However, COVID-19 positive neonates **with fever ($\geq 38^{\circ}\text{C}$) should continue to be referred** to the Children’s Emergency (CE) for clinical assessment and considered for admission to conduct inpatient investigations/management. Children with comorbidities (**Annex A, Figure A-2**), especially infants less than 3 months old⁵, should be co-managed with their paediatricians. Those without an attending paediatrician, are advised to consult one for additional medical support and expertise (please visit <https://flu.gowhere.gov.sg/> for the list of paediatricians), as they are more at risk of developing more severe illness. Doctors-in-charge are to have a high index of suspicion for Multi-system Inflammatory Syndrome in Children (MIS-C) when managing patients below 19 years old.

Submission of COVID-19 Results for Case Reporting

6. **COVID-19 tagging and submission of COVID-19 test results.** Doctors-in-charge **should** continue to submit COVID-19 test results and tag COVID-19 positive patients using the following means:

- a. **PRPP, iConnect and SRS** users should submit COVID-19 test results and tag COVID-19 positive patients as per current practice.
- b. **EMR** users should submit COVID-19 test results via EMR and tag the patients through FormSG, using the embedded link in EMR **or via <https://go.gov.sg/submit-covid-tagging>** (see **Annex B** for details).

⁵ Doctors-in-charge should screen these patients for comorbidities.

7. **HealthHub.** Doctors-in-charge should continue to submit ART results via PRPP/ iConnect/ SRS/ EMR, which will be reflected in HealthHub. PCR results will continue to be automatically reflected in HealthHub.

8. **Notification of deaths and management of deceased persons due to COVID-19.** Doctors-in-charge would no longer be required to notify MOH of deaths due to COVID-19. However, they should continue to notify I-FMD (Forensic Medicine Division), if the COVID-19 deceased is to be transferred for Post-Mortem under the Coroners Act or Infectious Diseases Act. Doctors-in-charge should ensure that the deceased's medical records contain documented evidence of infection (i.e., tested COVID-19 positive by PCR or healthcare provider administered ART) when documenting COVID-19 as cause of death or as a contributory factor.

9. Doctors-in-charge should continue to provide a copy of the “***Memo by Medical Practitioner for Personnel Managing Deceased Persons with Suspected or Confirmed COVID-19***” to the family of COVID-19 deceased, without having to notify MOH. The updated memo is provided in **Annex C**. The family of the deceased should be informed to provide the memo to the engaged undertaker, to facilitate the safe handling and management of the deceased's remains.

Submission of COVID-19 Vaccination Records

10. Medical practitioners who carry out or supervise the carrying out of a COVID-19 vaccination must continue to notify to the National Immunisation Registry within 72 hours of vaccination the following details:⁶

- a. Name and identification document number of the person vaccinated
- b. Brand of COVID-19 vaccine
- c. Batch/lot numbers
- d. Date of vaccine administration

⁶ The notification of COVID19 vaccination continues to be legal requirement under the Infectious Disease (COVID-19 Vaccination) Regulations.

COVID-19 Recovery in the Community

11. **General advisory.** Persons with mild ARI symptoms and/or **COVID-19 positive patients who are mildly ill should be advised to recover at home with appropriate infection prevention control measures.**⁷ If there is a need to leave home while symptomatic, they should wear a mask, avoid crowded places and vulnerable settings such as hospitals and nursing homes, and avoid contact with vulnerable persons such as the elderly.

12. **Medical certificates (MCs) and Memos.** Doctors-in-charge are recommended to exercise their clinical judgement when issuing the duration of sick leave for COVID-19 positive patients and/or patients with ARI symptoms and can adjust the duration as appropriate. Patients should be advised to seek medical attention if their symptoms worsen or do not improve with time. Doctors-in-charge should issue memos for patients who require documentation of COVID-19 infection. Alternatively, patients who are tagged could visit the website www.notarise.gov.sg/ to generate their notarised recovery certificates. Patients who are not tagged but require MOH recovery certificates may contact the 24-hourly manned MOH Home Recovery Buddy (HRB) hotline at **68744939** for assistance (in addition to their doctors' memos). This service is a timebound measure operating till 13 Aug 2023.

13. **Accommodation for recovery.** If there are vulnerable members in the same household (for example, 80 years old and above who are unvaccinated or not fully vaccinated), COVID-19 positive patients should be advised to take preventive measures to mitigate infection spread, such as wearing a mask, cleaning the toilet after every use, and not sharing a room with other household members. If patients are unable to exercise preventive measures and are concerned about the well-being of their vulnerable household members, **these patients should consider alternative accommodation arrangements, other than their residence.** Should patients express difficulty in arranging for alternative accommodation and require lodging, MOH may assist patients on a case-by-case basis such as admitting them to Community Isolation Facilities (CIF)⁸ and doctors-in-charge should advise these patients to contact the 24-hourly manned MOH HRB hotline at **68744939**. This service is a timebound measure operating till 13 Aug 2023.

⁷ For patients recovering at healthcare facilities (i.e., CTFs), doctors-in-charge are recommended to follow the recovery criteria "*Revised Deisolation Criteria, Recovery / Discharge Memos and Decanting Process for COVID-19 Patients in Hospitals and Community Isolation Facility (Medical) / COVID-19 Treatment Facility (CTF)*" dated 3 May 2022. Doctors-in-charge may exercise clinical discretion in managing these patients.

⁸ For patients who express a requirement to be isolated at a MOH facility due to social reasons, a healthcare provider administered test should be given to verify the patient's COVID-19 positive status, and the results should continue to be submitted.

14. **Commuting.** Commuting on public transport services, such as bus and MRT, is permitted for COVID-19 positive patients. For conveyance between places of residences (including nursing/MSF homes) and health care facilities (e.g. PHIs, Renal Dialysis Centres, clinics), as well as discharge from facilities, patients are to make their own transport arrangements.⁹ **All COVID-19 positive patients and/or patients with ARI symptoms should remain masked regardless of transportation modality.** In the event of a medical emergency, SCDF should be activated by dialling '995'.

15. **Patient Information Sheet.** Doctors-in-charge can refer patients to the "*Patient Information Sheet*" in **Annex D** for details regarding COVID-19 diagnosis, testing, self-isolation and the recovery process.

Healthcare Subsidies for COVID-19 Treatment

16. **Subsidies Applicable for COVID-19 Treatment.** With effect from **1 Apr 2023**, additional subsidies that were provided for COVID-19 treatment since the start of the pandemic will revert to pre-COVID-19 funding. Where applicable, financial support will revert to the S+3Ms (Subsidies, Medisave, Medishield and Medifund) healthcare financing frameworks. Specifically:

a. **Accident and Emergency department (A&E) – Screening and Treatment.** Regular A&E charges will apply for all patients seeking COVID-19 treatment at any A&E. COVID-19 oral antivirals that are administered at the A&E will remain fully subsidised for all Singaporean Citizens, Permanent Residents and Long-Term Pass Holders (SC/PR/LTPH) who are clinically eligible for the drug until further notice.

b. **Admissions to CIFs.** CIFs are currently chargeable to all Short-Term Visit Pass Holders (STVPs) on a per-use basis. The use of CIFs will be chargeable for all SC/PR/LTPH patients, regardless of vaccination status. **As CIFs are not medical facilities, patients cannot access S+2Ms (Medisave and Medishield) to pay for these bills.** SCs and PRs who are existing beneficiaries of government financial assistance schemes will continue to receive financial assistance to help defray any out-of-pocket payment.

c. **Admissions to Hospitals and COVID-19 Treatment Facilities (CTFs).** Treatment in hospitals and CTFs are currently chargeable for all STVPs and all SC/PR/LTPHs above 12 years of age who are unvaccinated-by-choice. All SC/PR/LTPH patients, regardless of their age or vaccination status, will be required to pay for their inpatient and/or CTF bills, but may access S+3Ms for the payments. SCs and PRs who are existing beneficiaries of government financial

⁹ CMTG will continue conveyancing support between PHIs and CTFs.

assistance schemes will continue to receive financial assistance to help defray any out-of-pocket payment.

d. **Polyclinics and PHPCs – Screening and Treatment.** All patients will be charged (subject to prevailing subsidies) for the investigations (e.g. ART, PCR) utilised¹⁰. **Until further notice, COVID-19 OAVs will remain fully subsidised¹¹ for clinically eligible patients, regardless of nationality.** These patients must meet all clinical criteria, be seen in person, tested COVID-19 positive on site and with clear documentation in the relevant reporting systems.

e. **Telemedicine Consultation and Treatment Charges.** Only high/intermediate risk patients who are clinically eligible and referred by their doctors-in-charge under the Patient Care Model in Para 4 will receive free ad-hoc TM services via designated TM providers. Patients who are not referred and wish to utilise TM services can access TM providers through “*FLUGOWHERE*” (<https://flu.gowhere.gov.sg/>) at their own expense. Non-designated TM providers will no longer be able to claim for COVID-19 related TM services.¹²

Conclusion

17. This Circular supersedes MOH Circular No. 72/2022, 111/2022 and 111A/2022. This is aligned with the strategy to right-site care and focus resources on managing severe cases and protecting vulnerable patients during endemicity. The strong support from all healthcare providers, healthcare institutions, CTFs, and CIFs is much appreciated. Please email mopc_operations@moh.gov.sg for any clarifications.



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MINISTRY OF HEALTH

¹⁰ The exception would be tests for surveillance (e.g. ARI sentinel surveillance at polyclinics).

¹¹ Short Term Visitor Pass holder (tourists) can also receive free OAVs at primary care clinics, but not at A&E departments.

¹² Non-designated Telemedicine (TM) providers refer to TM providers not designated by MOH (MOPC) for COVID-19 TM services.

Distribution List

All registered medical practitioners and Telemedicine Providers
GCEOs, CEOs, CMBs, COOs, CHROs of Public Hospitals
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COVID-19 Treatment Facilities and COVID-19 Isolation Facilities
Licensees and Managers of General and Specialist Medical Clinics
Licensees and Managers of Renal Dialysis Centres
CEOs of Nursing Homes
Chief Medical Officer, Assurance, Care and Engagement (ACE) Group, and Occupational Safety & Health Division, Ministry of Manpower

Annexes

A	Risk Criteria for COVID-19-positive patients (Adults, Paediatrics, Pregnant)
B	Enhancements to FormSG (submit-covid-tagging)
C	Memo By Medical Practitioner For Personnel Managing Deceased Persons With Suspected Or Confirmed COVID-19
D	Patient Information Sheet

ANNEX A. Risk Criteria for COVID-19 positive patients (Adults, Paediatrics, Pregnant).

<h3>ADULT (≥ 12 years old) Risk Criteria</h3> <ul style="list-style-type: none"> • High Risk – Suitable for recovery at home with close monitoring and strongly consider OAV if suitable (e.g. Paxlovid; note that Molnupiravir is only for those age > 18 years). For referral to A&E in event of deterioration. <ul style="list-style-type: none"> • Prevailing Ineligible Criteria for Adults <ul style="list-style-type: none"> ○ Non-fully vaccinated 80 years old and above • Comorbidities of Concern <ul style="list-style-type: none"> ○ ESRF on dialysis with any other comorbidities of concern ○ High-risk immunocompromised <ul style="list-style-type: none"> ○ Daily corticosteroid therapy with dose ≥20mg (or ≥2mg/kg/day for patients <10kg) or prednisolone or equivalent for ≥14 days ○ Non-steroid immunosuppressants ○ Solid organ cancer on active chemotherapy OR with neutropenia ○ Haematological malignancies ○ Status post solid organ transplant ○ Status post haematopoietic stem cell <5 years ago OR on immunosuppressants ○ Combined primary immunodeficiency ○ HIV infection with CD4 count <200 cells/mm³ (or <15%) and not virologic suppressed ○ Chronic organ disease at high risk of deterioration e.g. Decompensated Congestive Heart failure, Liver failure, COPD • Intermediate Risk – Can consider close monitoring and strongly consider OAV (either Paxlovid or Molnupiravir) if suitable. <ul style="list-style-type: none"> • Obesity: (BMI >35 or Weight >100kg) • Poorly Controlled DM • Low-risk immunocompromised • ESRF on dialysis without any other comorbidities of concern 	<h3>ADULT Symptoms/Signs of Concern</h3> <ul style="list-style-type: none"> • Symptoms <ul style="list-style-type: none"> • Shortness of breath • Chest pain • Acute stroke symptoms • Chest palpitations • Symptoms suggestive of DVT • Severe headache not better with pain meds • Persistent diarrhea/vomiting/unable to take in fluids • Persistent Fever ≥ 3 days (≥38 degrees Celsius) • Signs <ul style="list-style-type: none"> • Tachycardia >100 • Tachypnoea >20 • Hypotension <100mmHg • SPO2 ≤ 94% <p style="text-align: center; font-size: small;">*Doctor to exercise clinical judgement on whether to activate 995</p>
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Figure A-1. Adult Risk Criteria and Symptoms/Signs of Concern.

Definition and Care Model for Adult Immunocompromised (High Risk) and Patients with Severe Organ Disease

CAA 9 Feb 2023

Current Definition and Management of Adult (12 years and above) Comorbidities of Concern		
Category	Definition	Case Management
High risk Immuno-compromised*	Daily corticosteroid therapy with a dose of ≥20 mg (or ≥2 mg/kg/day for patients who weigh <10 kg) of prednisolone or equivalent for ≥14 days	<p>In managing high risk/ severely immunosuppressed patients suspected of having poor vaccine response, doctors should further assess and tailor the management to the individual, including whether the patient should be considered for early therapeutics. Do discuss with the patient's primary physician on further management/disposition, as necessary.</p> <p><u>Isolation Period</u></p> <ul style="list-style-type: none"> • Recommended for self-isolation for first 7 days • Can exit self-isolation after 7 days with negative ART or PCR Ct>25 • Maximum isolation period of up to <u>21 days</u>. i.e., Time-based discharge at D21 if persistent ART positive or PCR Ct<25. • Doctors' instructions will take precedence
	On other forms of non-steroid immunosuppressants (non-exhaustive list, examples) <ul style="list-style-type: none"> • methotrexate >0.4 mg/kg/week • azathioprine >3mg/kg/day • 6-mercaptopurine >1.5 mg/kg/day • Alkylating agents (e.g., cyclophosphamide) • Mycophenolate • Cyclosporine • Tacrolimus • Sirolimus • Biologic immune mediators/therapies (e.g., TNF alpha blockers, rituximab, CAR-T cell therapy, T cell B cell therapy) 	
	Solid organ cancer on active chemotherapy OR associated with neutropenia	
	Any history of haematologic malignancies (e.g., leukaemia, lymphoma, myeloma)	
	Status post solid organ transplant	
	Status post haemopoietic stem cell transplant <5 years ago OR currently on immunosuppressants	
	Combined primary immunodeficiency (e.g., Severe combined immunodeficiency)	
HIV infection with CD4 lymphocyte count <200 cells/mm ³ (or <15%) and not virologic suppressed <ul style="list-style-type: none"> • In situations of unknown status, HIV patients may be conveyed to CTF on first presentation. Upon confirmation of CD4 count and not virologic suppressed, patient can be deemed low risk immunocompromised and decanted to HRP enhanced, if clinically well. 		
Severe Organ Disease	Severe disease affecting heart/lung/liver/brain/nerves, requiring an admission at least once in the past 6 months. (E.g., heart failure, COPD, respiratory failure, liver failure).	<p>All high-risk individuals with severe organ disease should be escalated to the hospital, if acutely unwell</p> <p><u>Isolation period:</u></p> <ul style="list-style-type: none"> • Recommended for self-isolation for first 72 hours • Up to 7 days isolation if fully vaccinated • Up to 14 days isolation, if not fully vaccinated • Can exit self-isolation after 72 hours with negative ART

* Please consult the primary physician caring for the patient or relevant specialties if clarifications needed.



Definition and Care Model for Adult Immunocompromised (Low Risk) and Patients with End Stage Renal Failure (ESRF)

CAA 9 Feb 2023

Current Definition and Management of Adult (12 years and above) Comorbidities of Concern		
Category	Definition	Case Management
End Stage Renal Failure (ESRF)	End Stage Renal Failure on Haemodialysis (HD) or Peritoneal Dialysis (PD)	<p><u>Isolation period:</u></p> <ul style="list-style-type: none"> • Recommended for self-isolation for first 72 hours • Up to 7 days isolation if fully vaccinated • Up to 14 days isolation, if not fully vaccinated • Can exit self-isolation after 72 hours with negative ART
Low risk Immunocompromised*	Daily corticosteroid therapy with a dose of <20 mg (or <2 mg/kg/day for patients who weigh <10 kg) of prednisolone or equivalent for ≥14 days	<p><u>Isolation Period</u></p> <ul style="list-style-type: none"> • Recommended for self-isolation for first 7 days • Can exit self-isolation after 7 days with negative ART or PCR Ct>25 • Maximum isolation period of up to <u>14 days</u>. i.e., Time-based discharge at D14 if persistent ART positive or PCR Ct<25.
	On other forms of non-steroid immunosuppressants <ul style="list-style-type: none"> • methotrexate ≤0.4 mg/kg/week • azathioprine ≤3mg/kg/day • 6-mercaptopurine ≤1.5 mg/kg/day 	
	Status post haemopoietic stem cell / bone marrow transplant ≥5years ago <u>AND</u> currently not on immunosuppressants.	
	HIV infection with CD4 lymphocyte count ≥200 cells/mm ³ (or ≥15%) and virologic suppressed	

Category	Definition	Case Management CAA 9 Feb 2023
Not immunocompromised (immunocompetent)	On low dose corticosteroids not amounting to immunocompromised <ul style="list-style-type: none"> • Not on <u>daily</u> oral/IV corticosteroids • Daily corticosteroid therapy for <14 days continuously • Topical steroids are deemed not to cause immunosuppression • Stopped daily corticosteroids more than 4 weeks ago 	<p>You should stay at home until your symptoms resolve. If there is a need to go out while you are symptomatic, or if you are asymptomatic but test positive for COVID-19, please adopt precautions such as:</p> <ul style="list-style-type: none"> • Wear a mask • Avoid crowded places • Avoid vulnerable settings such as hospitals and nursing homes and contact with vulnerable persons such as the elderly
	Solid organ cancer not on any active chemotherapy and no evidence of neutropenia	
	Hormonal therapy and targeted therapy (including for cancer treatment) that do not result in immunosuppression (e.g., HER2, anti EGFR, anti VEGF)	

PAEDS (<12 years old) Risk Criteria

- **High Risk – Suitable for recovery at home with caregiver and close monitoring. For referral to ED in event of deterioration. Strongly consider management with patient’s regular paediatrician. May benefit from early treatment with IV remdesivir after discussion with paediatrician.**
 - Comorbidities of Concern
 - Bone marrow/Organ transplant on immunosuppressant
 - Active/current cancer on chemotherapy/treatment
 - Leukemia/lymphoma/other haematological malignancies
 - Disease or medications that suppress immune system
 - ESRF on dialysis
 - Poorly-controlled DM
 - Poorly-controlled HTN
 - Chronic/congenital respiratory conditions e.g. OSA, Chronic Lung Disease
 - Congenital heart/circulatory conditions
 - Neurodevelopmental conditions
 - Obesity (Refer to Table below)

Age group	At-risk BMI
9 - <12 YO	> 26
6 - <9YO	> 24
3 - <6YO	> 22
1 - <3YO	>20
3 months - <1YO	>20

PAEDS Symptoms/Signs of Concern

- **Symptoms**
 - Chest Pain
 - Shortness of Breath
 - Chest Palpitations
 - Drowsy/lethargic
 - High Fever >40°C
 - Prolonged Fever >38°C (continuously for 5 days or more)
 - Significant pain/discomfort anywhere
 - Headache worse than usual or not better with usual pain medications
 - Prolonged respiratory symptoms for 5 days or more
 - Persistent diarrhea/vomiting/abdominal pain and unable to take fluids (clinically unwell and fluid intake <50%)
 - Dehydrated - Poor urine output (<4 times/day)
 - Concerns of MIS-C/Kawasaki Disease
- **Signs**
 - SPO2 ≤ 94%
 - Tachycardia (Refer to table below)
 - Tachypnoea (Refer to table below)

AGE	HEART RATE		RESPIRATORY RATE	
	Minimum	Maximum	Minimum	Maximum
Birth – < 3 months	90	180	30	60
3 months – < 6 months	80	160	30	60
6 months – <1 year	80	140	25	45
1 year – < 6 years	75	130	20	30
6 years – < 10 years	70	110	16	24
10 years – < 15 years	60	90	14	20
15 years and above	60	90	12	16

*Doctor to exercise clinical judgement on whether to activate 995

Figure A-2. Paediatrics Risk Criteria and Symptoms/Signs of Concern.

Multi-system Inflammatory Syndrome in Children (MIS-C)

<p>Criteria for case definition of MIS-C</p> <ul style="list-style-type: none">• All 6 criteria must be fulfilled to meet case definition.• However, due to limitations of TM assessment, patients should be conveyed to hospital ED for further evaluation if there is any clinical suspicion of MIS-C.
<ol style="list-style-type: none">1) Age 0-19 years old2) Persistent high fever (>38.5°C) for 3 or more days3) Signs of multisystem involvement (at least 2 systems below)<ol style="list-style-type: none">a. Cardiovascular (e.g., raised cardiac biomarkers, pericarditis, coronary abnormalities, ECG abnormalities)b. Hypotension or shock (e.g., light-headedness/dizziness)c. Gastrointestinal (e.g., diarrhoea, vomiting, abdominal pain)d. Mucocutaneous features (e.g., rash, conjunctivitis, mucositis/red, cracked lips and red tongue, swollen hands or feet)e. Neurological manifestations (e.g., headache, altered mental state, seizures)f. Haematological (e.g., lymphopenia, thrombocytopenia, coagulopathy)g. Respiratory (e.g., shortness of breath, tachypnoea)h. Renal (e.g., marks of acute renal injury)4) Elevated markers of inflammation (e.g., CRP, ferritin, Procalcitonin, fibrinogen)5) Other bacterial/viral causes are excluded AND6) Evidence of current or recent COVID-19 infection (e.g., PCR-positive, serology positive or antigen positive)
<p>Notes for MIS-C:</p> <ul style="list-style-type: none">• Always have a high index of suspicion for children displaying high fever (>38.5°C) for 3 or more days at presentation and fulfilling 2 or more of the signs of multisystem involvement, in confirmed COVID-19 paediatric cases and paediatric cases who have recently recovered from COVID-19 infection (within 2 to 8 weeks prior to clinical presentation of MIS-C manifestations)• There is significant overlap in the presentations of MIS-C and Kawasaki. Even in the known diagnosis or clinical suspicion of Kawasaki, the recommendation is to still convey these patients to ED for review.

The following two brands of ART kits can be used for children younger than 2 years old. However, they should be administered by healthcare workers.

1. Abbott PanBio™ COVID-19 Antigen Self-Test
2. Acon Biotech Flowflex SARS-CoV-2 Antigen Rapid Test (Self-Testing)

Pregnant Women Risk Criteria

- **High Risk – Suitable for recovery at home with close monitoring and OAV if suitable (Paxlovid). For referral to ED in event of deterioration. For consideration of management in conjunction with patient's regular specialist physician/obstetrician.**
 - Comorbidities of Concern
 - Weight >100kg or BMI >40
 - Gestational diabetes in current pregnancy/pre-existing DM
 - Gestational hypertension/pre-eclampsia/pre-existing hypertension
 - Transplant patients on immunosuppressants, including solid organ and allogenic stem cell transplants
 - Cancer patients on active treatment with chemotherapy or on other therapies that suppress the immune system
 - Haematological cancers
 - Treatments for non-cancer conditions that suppress the immune system
 - End-stage kidney disease (on haemodialysis or peritoneal dialysis)
 - Advanced or untreated HIV
 - Any serious chronic medical conditions e.g. cardiac disease, renal disease, chronic lung disease (well controlled asthma/childhood asthma does not preclude inclusion into HRP)
 - Any concerns about pregnancy during previous check-ups

Pregnant Women Symptoms/Signs of Concern

- **Symptoms**
 - Shortness of breath (995)
 - Chest pain (995)
 - Acute stroke symptoms (995)
 - Chest palpitations
 - Severe headache that does not improve with usual pain meds
 - Prolonged fever (i.e. fever $\geq 38^{\circ}\text{C}$ for ≥ 3 days)
 - Persistent diarrhoea or vomiting and able to take well orally
 - Evidence of lower respiratory tract infection (clinical/radiological)
 - DVT symptoms
 - Vaginal bleeding or leaking of amniotic fluid
 - Regular contraction pains
 - Reduction in baby's movement (to note that fetal movement counting is only reliable for those 28 weeks gestation and above – at least 10 movements in 12 hours for patients engaging in everyday activities is considered acceptable)
- **Signs**
 - Tachycardia (HR ≥ 110)
 - Tachypnoea (RR ≥ 20)
 - SPO₂ $\leq 94\%$
 - Require supplementary oxygen

*Doctor to exercise clinical judgement on whether to activate 995

Figure A-3. Pregnant Women Risk Criteria and Symptoms/Signs of Concern.

Annex B. Enhancements to FormSG (submit-covid-tagging)

COVID-19 positive patients will be tagged if they are referred by their doctor-in-charge for free 24/7 TM consultation or for case reporting purposes. Tagging can be made using PRPP, iConnect or SRS. Alternatively for healthcare institutions which do not have either of these systems, they can tag their patients using FormSG (submit-covid-tagging) (<https://go.gov.sg/submit-covid-tagging>).

The enhancements made to the submit-covid-tagging FormSG is shown in Figure C-1.

5. I am referring patient for the following Protocol

- Protocol 1: Patient is of high/intermediate Risk AND need 24/7 Ad-hoc TM support
- Protocol 2 (Primary Care): Case Reporting only

Figure B-1. Screenshot of updated FormSG.

Annex C

MEMO BY MEDICAL PRACTITIONER FOR PERSONNEL MANAGING DECEASED PERSONS WITH SUSPECTED OR CONFIRMED COVID-19

Attention: Certifying Medical Practitioner

This memo must be provided to the family of the deceased if one or more of the Table 1 criteria (below) are selected "Yes".

To whom it may concern

Re:

Name of deceased _____

UIN _____

Date & Time of Death _____

Table 1.

Q1. Does the deceased have COVID-19 stated as a cause of death on the certificate of cause of death? This includes causes of death under "Antecedent Causes" and "Other Significant Conditions". This also includes ICD codes containing "coronavirus".	<input type="checkbox"/> Yes <input type="checkbox"/> No
Q2. Should the deceased be managed as COVID-19 deceased? Select "Yes" if the deceased passed away: i. in an institutional setting and was / should have been isolated for suspected or confirmed COVID-19 at the time of demise; or ii. at home / in the community and met the prevailing COVID-19 criteria to be advised to isolate at home.	<input type="checkbox"/> Yes <input type="checkbox"/> No

Note: If the next-of-kin would like the deceased to be embalmed, a list of licensed funeral parlours with embalming facilities is available at <https://www.nea.gov.sg/our-services/after-death/post-death-matters/arranging-a-funeral>.

Other remarks (optional): _____

Thank you.

Name & MCR: _____

Signature: _____

Date: _____

Annex D. Patient Information Sheet

For patients with mild symptoms, what happens when you test positive for COVID-19?

1. If you have visited a Polyclinic or GP clinic, you will receive an SMS informing you of your Antigen Rapid Test (ART) COVID-19 test results. For other healthcare providers and for Polymerase Chain Reaction (PCR) test done at the polyclinic or GP clinic, you may check HealthHub or with the provider for your test results¹³.
2. If your doctor has referred you for **free ad-hoc telemedicine (TM) services**, you will also receive an SMS from MOH informing you on your eligibility for TM services, for closer monitoring during your recovery at home.
3. You have been issued a Medical Certificate to provide adequate time for you to rest, please take your prescribed medications and recover.
4. Please head home immediately and stay at home until symptoms resolve. While you recover, you are advised to only leave home when necessary (e.g., to seek further medical attention). If there is a need to go out while you are symptomatic, please:
 - a. Wear a mask
 - b. Avoid crowded places
 - c. Avoid vulnerable settings such as hospitals and nursing homes and contact with vulnerable persons such as the elderly

Travelling Between Place of Residence and Healthcare Facilities

5. Commuting on public transport services, such as bus and MRT, is permitted. Patients are to make their own transport arrangements between their place of residence (including nursing/ welfare homes) and healthcare facilities (e.g., PHIs, clinics), and eventually upon discharge. All COVID-19 positive patients and/or patients with ARI symptoms must remain masked regardless of transportation modality. In the event of medical emergency, patients should contact SCDF for conveyance via “995”.

¹³ iConnect will send an SMS for ART positive/negative/invalid and PCR negative results. PRPP will only send SMS for positive and negative ART results.

Care During Your Recovery at Home

6. You should take appropriate infection prevention control measures during your recovery at home. Should you reside with a vulnerable household member (i.e., non-fully vaccinated elderly 80 years of age and above), preventive measures such as wearing a mask, cleaning the toilet after every use and not sharing a room with other household members should be taken to mitigate infection spread. Alternatively, kindly consider other accommodation arrangements, if possible.
7. Practise good personal hygiene by washing your hands regularly with soap and water.
8. If you are using a shared bathroom, the surfaces that you touch should be wiped down with disinfectant or bleach solution after each use. Please refer to the cleaning guidelines issued by the National Environmental Agency for further information: <https://www.nea.gov.sg/our-services/public-cleanliness/environmental-cleaning-guidelines/guidelines/cleaning-and-disinfection-guidelines-for-households-on-home-recovery>
9. Please ensure that your family members handle your laundry and trash carefully while wearing gloves, if possible. They should wash their hands with soap after doing so and avoid touching their faces before washing their hands.
10. You may wish to monitor your oxygen saturation using an oximeter and temperature if unwell. No reporting of your readings is required.
11. If you experience worsening symptoms or your symptoms are not improving (e.g., if you are 12 years old and above and experience persistent temperature above 38°C for ≥3days or oxygen saturation below 95%; **OR** if you are below 12 years old and experience prolonged fever below 38°C continuously for ≥5days), please return to your GP/polyclinic for further medical consult. In the event you are unable to access your GP/polyclinic (e.g., after-office hours) and need telemedicine service, please visit “FLUGOWHERE” (<https://flu.gowhere.gov.sg/>). You will need to pay for any telemedicine service used, unless you have been referred by your doctor for government-subsidised 24/7 ad-hoc TM services.
12. If you do not have any emergency conditions, please avoid seeking treatment at the A&Es of hospitals and consult your GP/polyclinic or telemedicine providers as above. Individuals with non-emergency conditions turning up at A&Es may be diverted to other clinics for further assessment to prioritise A&E resources for the management of patients requiring acute care. If hospitalisation is not required,

clinically stable individuals may also be diverted for admission to COVID-19 Treatment Facilities for further monitoring of their medical conditions.

13. If you experience an emergency (e.g., chest pain, shortness of breath or sudden weakness on one side), call 995 immediately, and inform the ambulance operator that you were diagnosed with COVID-19.

General Advisory

14. You should stay at home until your symptoms resolve. If there is a need to go out while you are symptomatic, or if you are asymptomatic but test positive for COVID-19, please adopt precautions such as:

- a. Wear a mask
- b. Avoid crowded places
- c. Avoid vulnerable settings such as hospitals and nursing homes and contact with vulnerable persons such as the elderly

Questions? Go to <https://www.covid.gov.sg/> or contact MOH HRB Hotline at **68744939**.

MINISTRY OF HEALTH 9 Feb 2023