Philippine COVID-19 Living Recommendations

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By:

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IMPORTANT NOTICE: These living recommendations will be updated as new evidence are published in the medical literature. It is critical that you take note of the date when the evidence was last reviewed. Additional recommendations may have to be developed as needed.

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Living Recommendations on Screening and Diagnosis of COVID-19

14-day Symptom-based Test

Should the 14-day symptom-based test be used in screening for COVID-19 infection in apparently healthy adults?

We suggest an initial screening for COVID-19 by checking for any influenza-like illness symptoms within the past 14 days in apparently healthy adults. *(Low quality of evidence; Conditional recommendation)*

Clinical Specimen

Which clinical specimen can be used as an alternative for the diagnosis of COVID-19?

We recommend the use of oropharyngeal swab as an alternative clinical specimen to nasopharyngeal swab RT-PCR for the diagnosis of COVID-19. *(Moderate quality of evidence; Strong recommendation)*

We recommend the use of saliva drool/spit and oral saliva specimens as an alternative to nasopharyngeal swab for RT-PCR diagnosis of COVID-19 among symptomatic and asymptomatic patients with suspected COVID-19 in hospital and community/outpatient settings. *(Moderate quality of evidence; Strong recommendation)*

We suggest the use of saliva swab and posterior oropharyngeal saliva specimens as an alternative for RT-PCR diagnosis of COVID-19 among symptomatic and asymptomatic patients with suspected COVID-19 in hospital and community/outpatient settings. *(Low quality of evidence; Conditional recommendation)*

We recommend the use of nasal swab/wash as an alternative clinical specimen to nasopharyngeal swab RT-PCR for the diagnosis of COVID-19. *(Moderate quality of evidence; Strong recommendation)*

We recommend the use of throat swab as an alternative clinical specimen to nasopharyngeal swab RT-PCR for the diagnosis of COVID-19. *(Low quality of evidence; Strong recommendation)*

We recommend against the use of sputum as an alternative clinical specimen to nasopharyngeal swab RT-PCR for the diagnosis of COVID-19. *(Very low quality of evidence; Strong recommendation)*

There is no evidence to recommend the use of bronchoalveolar lavage as an alternative clinical specimen to nasopharyngeal swab RT-PCR for the diagnosis of COVID-19.

Rapid Antigen Tests

Should rapid antigen tests be used in the diagnosis of COVID-19 in clinically suspected patients?

We recommend the use of rapid antigen test under all these conditions in patients suspected of COVID-19 infection: *(Moderate quality of evidence; Strong recommendation)*

- Symptomatic AND
- Early phase </=7 days from onset of symptoms AND
- Specific brands that demonstrated sensitivity ≥80% and have very high specificity (≥97-100%))

We recommend against the use of saliva as specimen for rapid antigen test in patients suspected of COVID-19 infection. *(Moderate quality of evidence; Strong recommendation)*

We recommend against the use of rapid antigen test alone in diagnosing COVID-19 in asymptomatic patients suspected of COVID-19 infection. *(Moderate to high quality of evidence; Strong recommendation)*

Pooled Testing using RT-PCR

Should pooled testing using RT-PCR for SARS-CoV-2, versus individual testing using RT-PCR, be used for screening and surveillance for SARS-CoV-2 in patients with suspected COVID-19 infection?

We suggest the use of pooled RT-PCR testing in targeted* low-risk and low-prevalence populations using a pool size of 5 in individuals suspected of COVID-19 infection. *(Moderate quality of evidence; Conditional recommendation)*

**Target population refer to the list of PSP and DOH*

Repeat Testing using RT-PCR

Should repeat RT-PCR testing after an initial negative RT-PCR versus single RT-PCR testing be done to diagnose COVID-19 in symptomatic patients with high index of suspicion?

We suggest to repeat RT-PCR testing when the initial RT-PCR test is negative among symptomatic patients with high index of suspicion for COVID-19 infection. *(Low quality of evidence; Conditional recommendation)*

Clinical risk assessment for surgery

Among asymptomatic individuals scheduled for non-urgent, non-emergency surgery, should RT-PCR and clinical risk assessment vs clinical risk assessment alone be done to screen for COVID-19?

We recommend the use of both clinical risk assessment and RT-PCR* to screen for COVID-19 among asymptomatic individuals scheduled for non-emergency surgery *(Very low quality of evidence; Strong recommendation)*.

We recommend the use of both clinical risk assessment and Antigen-Rapid Diagnostic Test (Ag-RDT)** to screen for COVID-19 among asymptomatic individuals scheduled for non-emergency surgery when RT-PCR testing is not available or when prolonged turnaround time is considered *(Very low quality of evidence; Strong recommendation)*.

**Use high-risk PPE regardless of RT-PCR or Ag-RDT test results in areas with prevalence of 1% or higher.*
***Ag-RDT should have a Sn of 80% and Sp of 97%*

Antibody tests for seroprevalence

Should antibody tests be used for COVID-19 seroprevalence studies among adult populations?

We suggest using antibody tests with high sensitivity and specificity (e.g., total antibody or IgG assays, ELISA, ECLIA) to determine COVID-19 seroprevalence among adults *(Very low quality of evidence; Conditional recommendation)*.

We recommend against using antibody tests detecting IgM to determine COVID-19 seroprevalence among adults *(Very low quality of evidence; Strong recommendation).*

We recommend against using rapid antibody tests (e.g., LFIA) to determine COVID-19 seroprevalence among adults *(Very low quality of evidence; Strong recommendation).*

Antibody test for reinfection

Among symptomatic individuals previously diagnosed with COVID-19, should antibody testing be done to diagnose presumptive COVID-19 reinfection?

We recommend against the use of SARS-CoV-2 Ab testing to diagnose presumptive COVID-19 reinfection among symptomatic patients previously diagnosed with COVID-19* *(Very low quality of evidence; Strong recommendation)*.

**NAAT (RT-PCR) and Genomic sequencing are the recommended diagnostic tests to confirm COVID-19 reinfection.*

Return to work

What criteria should be used for allowing workers who were previously infected with COVID-19 to return to work?

We recommend the use of **symptom-based strategy** for the discontinuation of isolation and return to work clearance of the following:

1. **Asymptomatic adults who are not severely immunocompromised if they fulfill the following *(Very low quality of evidence; Strong recommendation):***
   - remained asymptomatic throughout their infection
   - 10 days have passed from the first positive viral diagnostic test (RT-PCR or rapid antigen)

2. **Adults who had mild to moderate COVID-19 who are not severely immunocompromised if they fulfill the following *(Very low quality of evidence; Strong recommendation):***
   - Afebrile for at least 24 hours without use of antipyretic medications
   - Respiratory symptoms have improved (cough, shortness of breath)
   - 10 days have passed from symptom onset

3. **Adults who had severe to critical COVID-19 who are not severely immunocompromised if they fulfill the following *(Very low quality of evidence; Strong recommendation):***
   - Afebrile for at least 24 hours without use of antipyretic medications
   - Respiratory symptoms have improved (cough, shortness of breath)
   - 21 days have passed from symptom onset

A repeat negative RT-PCR test is no longer needed for discharge of immunocompetent patients with probable or confirmed COVID-19 regardless of severity, *because, in most cases, it results in prolonged isolation of patients who continue to shed detectable SARS-CoV-2 RNA but are no longer infectious.*

We suggest the use of **test-based strategy** using RT-PCR for the discontinuation of isolation and return to work clearance of the following: *(Very low quality of evidence; Conditional recommendation*):

1. **Severely immunocompromised adults if they fulfill the following**
   - Afebrile for at least 24 hours without use of antipyretic medications
   - Respiratory symptoms have improved (cough, shortness of breath)
   - With least 2 consecutive negative RT-PCR tests of respiratory specimens, at least 24 hours apart

2. **Healthcare workers if they fulfill the following *(Very low quality of evidence; Conditional recommendation):***
   - Afebrile for at least 24 hours without use of antipyretic medications
   - Respiratory symptoms have improved (cough, shortness of breath)
   - With 2 consecutive negative RT-PCR tests of respiratory specimens, at least 24 hours apart

Severely immunocompromised: Ongoing chemotherapy for cancer, or within one year from receiving a hematopoietic stem cell or solid organ transplant; untreated HIV infection with CD4 count < 200, combined

primary immunodeficiency disorder, and receipt of prednisone >20mg/day for more than 14 days, may cause a higher degree of immunocompromised and require actions such as lengthening the duration of work restrictions. Other less immunocompromising conditions include advanced old age, DM, CKD. The degree of immunocompromise is determined by the health care provider, and preventive actions are adapted to each individual and situation.

Chest X-Ray

Should Chest X-Ray be used to diagnose COVID-19 among suspected patients?

We suggest against the use of chest x-ray to diagnose COVID 19 infection among asymptomatic individuals *(Very low quality of evidence, Conditional recommendation).*

We suggest Chest x-ray to facilitate rapid triage, infection control and clinical management among any of the following:

- patients with mild features of COVID 19 at risk for progression
- patients with moderate to severe features of COVID 19
- patients with symptoms of at least 5 days duration

(Very low quality of evidence, Conditional recommendation).

Chest CT Scan

Should Chest CT Scan be used to diagnose COVID-19 among suspected patients?

We suggest against routine use the use of CT scan for diagnosing COVID-19 among suspected patients with COVID-19 presenting at the emergency department if RT-PCR testing is readily available and with timely results. *(Very low quality of evidence, Conditional recommendation).*

If RT-PCR test is not available, we suggest using non-contrast chest CT scan for symptomatic patients suspected of having COVID-19 to guide early triage and management under the following conditions:

- Mild COVID-19 patients who are at risk for progression
- Moderate to severe COVID-19 patients

(Very low quality of evidence, Conditional recommendation).

Lung Ultrasound

Should Lung Ultrasound be used to diagnose COVID-19 among suspected patients?

We suggest against the use of lung ultrasound alone in diagnosing patients with suspected COVID-19 infection.
(Low quality of evidence, Conditional recommendation).

Hydroxychloroquine/Chloroquine

Should hydroxychloroquine/ chloroquine, with or without azithromycin be used in the treatment of patients with COVID-19 infection?

We recommend against the use of hydroxychloroquine/chloroquine, with or without azithromycin among patients with COVID-19 infection. *(Moderate quality of evidence; Strong recommendation)*

Azithromycin

Should azithromycin be used in the treatment of patients with COVID-19 infection?

We recommend against the use of azithromycin among patients with COVID-19 infection. *(Moderate quality of evidence; Strong recommendation)*

Favipiravir

Should favipiravir be used in the treatment of patients with COVID-19 infection?

There is insufficient evidence to recommend the use of favipiravir among patients with COVID-19. *(Very low quality of evidence)*

Remdesivir

Should remdesivir be used in the treatment of patients with COVID-19 infection?

We suggest against the use of remdesivir in patients with COVID-19 infection who have O2 saturation ≥94% and do not require oxygen supplementation. *(Low quality of evidence; Conditional recommendation)*

We suggest the addition of remdesivir to dexamethasone in patients with COVID-19 infection who have O2 saturation < 94% and/or requiring oxygen supplementation*. *(Low quality of evidence; Conditional recommendation)*

We suggest against the use of remdesivir in patients with COVID-19 infection who are already on invasive mechanical ventilation. *(Low quality of evidence, conditional recommendation)*

*For patients who progress to invasive mechanical ventilation while on remdesivir, the drug can be continued.

Tocilizumab

Should tocilizumab be used in the treatment of patients with COVID-19 infection?

We recommend the addition of tocilizumab to systemic steroids in patients showing rapid respiratory deterioration and/or requiring high doses of oxygen (high-flow nasal cannula, noninvasive or invasive mechanical ventilation) and with elevated biomarkers of inflammation (CRP). *(Moderate quality of evidence; Strong recommendation)*

We recommend against the use of tocilizumab in patients with COVID-19 infection who do not require oxygen supplementation. *(Very low quality evidence, Strong recommendation)*

Convalescent Plasma

Should convalescent plasma be used in the treatment of patients with COVID-19 infection?

We recommend against the use of convalescent plasma in patients with COVID-19 infection. *(Moderate quality of evidence; Strong recommendation)*

Ibuprofen

Should ibuprofen be used in the treatment of patients with COVID-19 infection?

We recommend against the use of ibuprofen as treatment among patients with COVID-19 infection. *(Very low quality of evidence; Strong recommendation)*

Virgin Coconut Oil

Should virgin coconut oil (VCO) be used in the treatment of patients with COVID-19 infection?

There is no evidence to recommend the use of VCO as treatment among patients with COVID-19 infection.

Lianhua

Should Lianhua be used in the treatment of patients with COVID-19 infection?

We recommend against the use of Lianhua as treatment among patients with COVID-19 infection. *(Very low quality of evidence; Strong recommendation)*

Ivermectin

Should ivermectin be used in the treatment of patients with COVID-19 infection?

There is insufficient evidence to recommend the use of ivermectin in the treatment of patients with mild-to-moderate COVID-19 *(Very low quality of evidence)*

We suggest against the use of ivermectin for the treatment of patients with severe COVID-19 *(Very low quality of evidence; Conditional recommendation)*

We suggest against the use of ivermectin combined with doxycycline for the treatment of patients with COVID-19 *(Very low quality of evidence; Conditional recommendation)*

Colchicine

Should colchicine be used in the treatment of patients with COVID-19 infection?

We suggest against the use of colchicine in the treatment of COVID-19 *(Low quality of evidence; Conditional recommendation)*

Interferon

Should interferon be used in the treatment of patients with COVID-19 infection?

We suggest against the use of interferon in the treatment of hospitalized patients with moderate to critical COVID-19 *(Very low quality of evidence; Conditional recommendation)*

Baricitinib

Should baricitinib with or without remdesivir be used in the management of hospitalized patients with COVID-19?

We suggest the use of baricitinib in combination with remdesivir in hospitalized COVID-19 patients requiring oxygen supplementation and who cannot take corticosteroids *(Low quality of evidence; Conditional recommendation)*

There is insufficient evidence to recommend the use of baricitinib in combination with remdesivir and corticosteroids in hospitalized COVID-19 patients *(Very low quality of evidence)*

There is no evidence to recommend the use of baricitinib alone in hospitalized COVID-19 patients.

Inhalational Corticosteroids

Should inhaled corticosteroids be used in the treatment of patients with COVID-19 infection?
There is insufficient evidence to recommend the use of inhaled corticosteroids as treatment for non-hospitalized patients with mild to moderate COVID-19 infection *(Very low quality of evidence)*

Lopinavir/Ritonavir

Should lopinavir/ritonavir be used in the treatment of COVID-19?
We recommend against the use of lopinavir/ritonavir as treatment for COVID-19 infection *(Moderate quality of evidence; Strong recommendation)*

Bamlanivimab

Should bamlanivimab be used in the treatment of COVID-19?
We recommend against the use of bamlanivimab monotherapy as treatment for COVID-19 infection *(Very low quality of evidence; Strong recommendation)*

We suggest against the use of bamlanivimab/etesevimab in the treatment of non-hospitalized COVID-19 patients with mild-to-moderate COVID-19 at high risk of progression to severe disease *(Low quality of evidence; Conditional recommendation)*

Regeneron

Should regeneron (monoclonal antibody cocktail) be used in the treatment of COVID-19?
There is insufficient evidence to recommend the use of REGN-COV2 (casirivimab/imdevimab) as treatment for COVID-19 infection *(Low quality of evidence)*

Leronlimab

Should leronlimab be used in the treatment of patients with COVID-19 infection?
There is insufficient evidence to recommend the use of leronlimab as treatment for COVID-19 *(Very low quality of evidence)*

Steam Inhalation

Should steam inhalation be used for the treatment of COVID-19?
We recommend against the use of steam inhalation in the treatment of COVID-19. *(Very low quality of evidence; Strong recommendation)*

Living Recommendations for the Critical Care and Respiratory Management of COVID-19

Systemic Corticosteroids

Should systemic corticosteroids be used in patients with COVID-19 infection?
We recommend the use of dexamethasone in patients with COVID-19 infection who require supplemental oxygenation (i.e., including high-flow device, non-invasive, invasive mechanical ventilation and ECMO). *(High quality of evidence; Strong recommendation)*

We recommend against the use of systemic corticosteroids among patients with COVID-19 infection who do not require oxygen supplementation. *(Moderate to high quality of evidence; Strong recommendation)*

Anticoagulation

Should anticoagulation be used in treating patients diagnosed with COVID-19 infection?
We suggest the use of prophylactic anticoagulation among hospitalized patients with COVID-19 infection, unless with contraindications. *(Very low quality of evidence; Conditional recommendation)*

We suggest the use of prophylactic dose anticoagulation over therapeutic anticoagulation in critically ill patients with COVID-19 infection. *(Low quality of evidence; Conditional recommendation)*

Empiric antimicrobials

Should empiric antimicrobial coverage be given to patients with severe and critical COVID-19?
We recommend against the use of antibacterials in patients with severe and critical COVID-19 infection, unless with suspicion of secondary bacterial co-infection. For patients on empiric antibacterial therapy, they should be assessed daily for the need for discontinuation *(Very low quality of evidence; Strong recommendation)*

Hemoperfusion

Should hemoperfusion be used in patients with COVID-19 infection?
There is insufficient evidence on the use of hemoperfusion at this time among patients with COVID-19 infection. *(Very low quality of evidence)*

Fluid Management

Should a conservative fluid management strategy be used in mechanically ventilated adult COVID-19 patients?
We suggest the use of conservative fluid management over liberal fluid management strategy in mechanically ventilated adult COVID-19 patients with acute respiratory distress syndrome who are adequately resuscitated*. *(Low quality of evidence; Conditional recommendation)*
**without tissue hypoperfusion and fluid responsiveness*

Proning in Non-Intubated Patients

Should proning be used in non-intubated patients with COVID-19 infection?
We suggest self-proning to improve oxygenation status of non-intubated hospitalized patients with COVID-19 infection requiring oxygen supplementation. *(Very low quality of evidence; Conditional recommendation)*

High Flow Nasal Cannula

Should high flow nasal cannula be used in patients with COVID-19 infection?
We suggest the use of high-flow nasal cannula oxygenation over non-invasive ventilation (e.g., helmet CPAP, mask NIV) in patients with COVID-19 infection and acute hypoxemic respiratory failure who do not respond to conventional oxygen therapy. *(Very low quality of evidence; Conditional recommendation)*

Mechanical Ventilation

Should lung protective ventilation, high PEEP and driving pressure-limited strategies be used in the management of adult patients with COVID-19-associated acute respiratory distress syndrome?
We suggest the use of a lung protective ventilation strategy (tidal volume 4-8 mL/kg predicted body weight and plateau pressure less than 30 cmH2O in patients with COVID-19 infection and ARDS. *(Very low quality of evidence; Conditional recommendation)*

There is insufficient evidence to recommend the use of a higher PEEP strategy. We suggest to individualize PEEP or employ a PEEP strategy on respiratory mechanics (i.e., compliance) in patients with COVID-19 infection. *(Low quality of evidence; Conditional recommendation)*

There is insufficient evidence to recommend a driving pressure limited strategy in patients with COVID-19 infection. We suggest to keep the driving pressure ≤ 14 cmH2O. *(Low quality of evidence; Conditional recommendation)*

Rapid Sequence Intubation

Should rapid sequence intubation or delayed sequence intubation be used for the management of COVID-19?
We suggest the use of rapid sequence intubation for COVID-19 patients to reduce infection among healthcare workers performing the procedure *(Very low quality of evidence; Conditional recommendation)*

Extracorporeal Membrane Oxygenation

Should Extracorporeal Membrane Oxygenation (ECMO) be used in the management of ARDS among COVID-19?
We suggest the use of VV-ECMO for judiciously selected COVID-19 patients with severe ARDS based on the ELSO criteria *(Very low quality of evidence; Conditional recommendation)*

Hyperbaric Oxygen Therapy

Should hyperbaric oxygen therapy be used in the management of COVID-19 patients?
There is insufficient evidence to recommend the use of hyperbaric oxygen therapy for the management of COVID-19 patients *(Very low quality of evidence)*

Etoposide

Should etoposide be given among patients with severe COVID-19 pneumonia in cytokine storm?
We recommend against the use of etoposide among patients with COVID-19 pneumonia in cytokine storm *(Very low quality of evidence; Strong recommendation)*

Pulmonary rehabilitation in patients with Long COVID-19

Should pulmonary rehabilitation be done with long COVID patients with residual pulmonary symptoms to improve pulmonary function and quality of life?

We recommend individualized pulmonary rehabilitation with pre intervention medical clearance for long COVID patients who show residual respiratory symptoms *(Moderate quality of evidence; Strong recommendation)*

Living Recommendations on Non-Pharmacologic Interventions for COVID-19

Cloth Masks

Should cloth masks be used in the prevention and control of COVID-19 infection?
We recommend that healthcare workers not directly taking care of COVID-19 patients, and other persons with high risk of exposure to COVID-19 should use properly fitted surgical masks instead of cloth masks. *(Moderate quality of evidence; Strong recommendation)*

We suggest using a cloth mask that fits snugly on the face and made of at least two layers of cotton (e.g., t-shirt fabric) or non-woven nylon with aluminum nose bridge for the general public with low risk of exposure to COVID-19 in outdoor or indoor areas to prevent COVID-19 infections *(Low quality of evidence; Conditional recommendation)*

Ionizing Air Filter

Should ionizing air filter be used in the prevention and control of COVID-19 infection in public spaces with sustained community transmission?
We recommend against the use of ionizing air purifier to reduce COVID-19 transmission in the community. *(Low quality of evidence; Strong recommendation)*

Foot Baths

Should foot baths be used in the prevention and control of COVID-19 infection?
We recommend against the use of footbaths for the prevention and control of COVID-19 transmission. *(Very low quality of evidence; Strong recommendation)*

Misting Tents

Should misting tents or disinfection chambers be used in preventing and controlling COVID-19 transmission?
We recommend against the use of misting tents or disinfection chambers for preventing and controlling COVID-19 transmission. *(Very low quality of evidence; Strong recommendation)*

Ultraviolet (UV) Lamps

Should ultraviolet (UV) lamps be used in the prevention and control of COVID-19 infection in public spaces in locations with sustained community transmission?
We recommend against the use of UV lamps or other UV devices in any place outside of a controlled clinic or hospital setting to prevent and control COVID-19 transmission. *(Low quality of evidence; Strong recommendation)*

High Efficiency Particulate Air (HEPA) Filter

Should high efficiency particulate air (HEPA) filters be used in the prevention and control of COVID-19 infection in public spaces and locations with sustained community transmission?
We suggest the use of HEPA filter as an option to improve air quality for COVID-19 prevention and control in indoor spaces with inadequate ventilation. *(Low quality of evidence; Conditional recommendation)*

N95 Decontamination Techniques

What are effective decontamination techniques for N95 reuse?

In situations where there is shortage of filtering facepiece respirators (FFR), we suggest the use of Hydrogen Peroxide Vapor (HPV), Ultraviolet Germicidal Irradiation (UVGI), moist heat and peracetic acid dry fogging system (PAF) as options for N95 mask decontamination as recommended by the manufacturer based on their ability to reduce SARS-COV-2 load and infectivity while still maintaining N95 mask integrity. *(Low quality of evidence; Conditional recommendation)*

We recommend against the use of autoclave and alcohol as these methods alter filtering facepiece respirator's (N95) integrity and degrade filtration efficacy. *(Very low quality of evidence; Strong recommendation)*

PPE in Surgery

What is the appropriate PPE to use during surgeries to reduce COVID-19 virus transmission?

We recommend the use of appropriate PPE to include mask (N95 at least, N99, FFP2, FFP3), fluid repellent sealed well-fitting long gown, double gloves with tabs to grab, disposable apron, full face shield or goggles or visor, scrub hat and disposable shoe covers or dedicated closed footwear among surgeons engaged in aerosol generating procedures of suspected or confirmed COVID-19 patients. *(Very low quality of evidence; Strong recommendation)*

PPE in Outpatient Settings

Among healthcare workers in the outpatient setting of communities with sustained COVID-19 transmission, does the use of personal protective equipment reduce risk of transmission?

We recommend the use of at least surgical face mask and face shield for protection against COVID-19 infection among healthcare workers in the outpatient setting not performing aerosol generating procedures. Additional PPEs such as medical gowns and gloves should be worn as part of standard precautions during the performance of other procedures. *(Very low quality of evidence; Strong recommendation)*

PPE in Hospitals

Among health care workers how effective is the use of personal protective equipment in the wards, ICU and emergency room in the prevention of COVID 19 infection?

We recommend the use of the following PPE: disposable hat, medical protective mask (N95 or higher standard), goggles or face shield (anti-fog), medical protective clothing, disposable gloves and disposable shoe covers or dedicated closed footwear as an effective intervention in the prevention of COVID-19 among health care workers in areas with possible direct patient care of COVID-19 positive patients and possible performance of aerosol generating procedures. *(Moderate quality of evidence; Strong recommendation)*

Living Recommendations on Vaccines and Prophylactic Interventions for COVID-19

Vaccines

Are vaccines effective and safe in the prevention of COVID-19 infections?

We recommend the use of the following vaccines to prevent symptomatic SARS-CoV-2 infection in **adults**: *(Moderate quality of evidence; Strong recommendation)*

a. BNT162b2 (Pfizer/BioNTech) (given as 0.3ml (30ug) intramuscular injections, in 2 doses, 21 days apart)
b. mRNA-1273 (Moderna) (given as 0.5ml (100ug) intramuscular injections, in 2 doses, 28 days apart)
c. ChAdOx1 (AstraZeneca) (given as 0.5 ml (5×10^6 vp) intramuscular injections, in 2 doses, at least 12 weeks apart)
d. Gam-COVID-Vac (Gamaleya) (given as rAd-26 0.5ml intramuscular injection, then rAd-5S 0.5 ml intramuscular injection 21 days after)
e. Ad26.COV2.S (Janssen/Johnson&Johnson) (given as 0.5ml single dose intramuscular injection)

We recommend the use of CoronaVac (Sinovac) (given as 0.5ml (600SU) intramuscular injection, in 2 doses, at 28 days apart) to prevent symptomatic SARS-CoV-2 infection among **adults**: *(Low quality of evidence; Strong recommendation)*

We recommend the use of BNT162b2 (Pfizer/BioNTech), mRNA-1273 (Moderna), ChAdOx1 (Astrazeneca), Gam-COVID-Vac (Gamaleya) and Ad26.COV2.S (Janssen/ Johnson&Johnson) vaccines to **older adults (>64 year old)** to prevent symptomatic SARS-CoV-2 Infection. *(Low quality of evidence; Strong recommendation)*

There is insufficient evidence to recommend the use of CoronaVac in **older adults (>60 years old)** to prevent symptomatic SARS-CoV-2 infection. *(Very low quality of evidence)*

We recommend the use of these vaccines in **pregnant and lactating women** after consultation with a physician. *(Very low quality of evidence; Conditional recommendation)*

We recommend the use of BNT162b2 (Pfizer/BioNTech), mRNA-1273 (Moderna), ChAdOx1 (Astrazeneca), Gam-COVID-Vac (Gamaleya) and Ad26.COV2.S (Janssen/ Johnson&Johnson) vaccines in **adults who have stable medical comorbidities and are at risk for severe infection** to prevent SARS-CoV-2 infection. *(Moderate quality of evidence; Strong recommendation)*

We suggest the use of CoronaVac in adults who have **stable medical comorbidities and are at risk for severe infection** to prevent SARS-CoV-2 infection. *(Very low quality of evidence; Conditional recommendation)*

We recommend the use of these vaccines in **immunocompromised patients** (i.e., diagnosed with HIV, hepatitis B and C, those with cancer undergoing chemotherapy, transplant patients receiving immune-suppression) to prevent SARS-CoV-2 infection after medical clearance from a physician. *(Low quality of evidence; Strong recommendation)*

We recommend **against** the use of these vaccines **who have known allergies to the contents / excipients** of the vaccine, such as polysorbate (ChAdOx1, Gam-COVID-Vac and Ad26.COV2.S) and polyethylene glycol or PEG200 DMG (BNT162b2 and mRNA-1273). *(Moderate to high quality of evidence; Strong recommendation)*

Melatonin

Should melatonin be used in the prevention of COVID-19 infection?

We recommend against the use of melatonin as prevention for COVID-19 infection. *(Very low quality of evidence; Strong recommendation)*

Vitamin D

Should Vitamin D supplementation be used in the prevention of COVID-19 infection?

We recommend against the use of Vitamin D supplementation to prevent COVID-19 infection. *(Very low quality of evidence; Strong recommendation)*

Zinc

Should zinc supplementation be used in the prevention of COVID-19 infection?

We recommend against the use of zinc supplementation to prevent COVID-19 infection. *(Very low quality of evidence; Strong recommendation)*

Hydroxychloroquine/Chloroquine

Should hydroxychloroquine/ chloroquine be used in the prevention of COVID-19?

We recommend against the use of HCQ for pre-exposure prophylaxis in adults who are at high risk of exposure to COVID-19 cases. *(Moderate quality of evidence; Strong recommendation)*

We recommend against the use of HCQ for post-exposure prophylaxis in adults who are exposed to COVID-19 cases. *(Low quality of evidence; Strong recommendation)*

Lopinavir/Ritonavir

Should lopinavir/ritonavir be used as prophylaxis for the prevention of COVID-19?

We recommend against the use of lopinavir/ritonavir for chemoprophylaxis in individuals exposed to COVID-19 patients. *(Very low quality of evidence; Strong recommendation)*

Saline Nasal Irrigation

Should saline nasal irrigation be used for the prevention of COVID-19?

There is insufficient evidence to recommend the use of saline nasal irrigation (SNI) to prevent COVID-19 in healthy individuals. *(Very low quality of evidence)*

Steam Inhalation

Should steam inhalation be used for the prevention of COVID-19?

We recommend against the use of steam inhalation in the prevention of COVID-19. *(Very low quality of evidence; Strong recommendation)*

Antiseptic Gargles

Should antiseptic gargles be used for the prevention of COVID-19?

There is insufficient evidence to recommend the use of antiseptic mouthwash or gargle to prevent COVID-19 in healthy individuals. *(Very low quality of evidence)*

Ivermectin

Should ivermectin be used as COVID-19 prophylaxis for the general population?

We recommend against the use of ivermectin as COVID-19 prophylaxis for the general population. *(Very low quality of evidence; Strong recommendation)*

We recommend against the use of ivermectin for COVID-19 as post-exposure prophylaxis for household contacts of confirmed COVID-19 patients. *(Very low quality of evidence; Strong recommendation)*

We recommend against the use of ivermectin for COVID-19 as prophylaxis for healthcare workers. *(Very low quality of evidence; Strong recommendation)*

Living Recommendations on Adjunct Interventions for COVID-19

Zinc

Should zinc be given as an adjunct treatment to patients diagnosed with COVID-19 infection?
There is insufficient evidence to recommend the use of zinc as adjunct treatment for patients with COVID-19 infection both in the outpatient and in-patient setting. *(Very low quality of evidence)*

Vitamin C

Should Vitamin C be used as adjunct treatment for COVID-19?
There is insufficient evidence to recommend the use of intravenous Vitamin C as adjunct treatment for patients with COVID-19 infection. *(Low quality of evidence)*

Vitamin D

Should Vitamin D supplements be used as adjunct treatment for COVID-19?
There is insufficient evidence to recommend the use of Vitamin D supplementation as adjunct treatment for patients with COVID-19 infection. *(Low to very low quality of evidence)*

Melatonin

Should melatonin be used in the adjunctive treatment of COVID-19?
There is insufficient evidence to recommend the use of melatonin as adjunct treatment for patients with COVID-19 infection. *(Very low quality of evidence)*

Virgin Coconut Oil

Should virgin coconut oil be used in the adjunctive treatment of COVID-19?
There is no evidence to recommend the use of virgin coconut oil as adjunct treatment for patients with COVID-19 infection.

N-acetylcysteine

Should N-acetylcysteine be used as an adjunct treatment for patients diagnosed with COVID-19?
We recommend against the use of intravenous N-acetylcysteine as adjunct treatment for patients with COVID-19 infection. *(Moderate quality of evidence; Strong recommendation)*

Renin-Angiotensin-Aldosterone System Blockers (RAAS)

Should RAAS blockers be continued in patients with COVID-19?
We recommend continuing maintenance RAAS blockers for hypertension among patients with COVID-19 infection. *(Moderate quality of evidence; Strong recommendation)*

Ibuprofen

Does the concurrent use of Ibuprofen worsen COVID-19 outcomes?
We suggest that ibuprofen may still be used as symptomatic treatment of patients with COVID-19 infection if clinically warranted. Concurrent use of ibuprofen is not associated with worsening of COVID-19 outcomes. *(Very low quality of evidence; Conditional recommendation)*

Vitamin B

Should B Vitamins be used as an adjunct in the treatment of COVID-19?

We suggest against the use of B vitamins as adjunct in the treatment of patients with COVID-19. *(Very low quality of evidence; Conditional recommendation)*

Fatty Acids

Should oral fatty acid supplements be used as adjunct treatment for patients with COVID-19?

There is insufficient evidence to recommend the use of fatty acid supplements as adjunctive treatment for patients with COVID-19. *(Low quality of evidence)*

Prognostic Models

Among adult patients diagnosed with COVID-19, should prognostic models be used to predict the likelihood of severe disease and mortality?

To guide the decision to admit patients with COVID-19 to the hospital:

We suggest the use of ABC2-SPH, CURB-65, RISE-UP, and REMS. *(Low quality of evidence; Conditional recommendation)*

There is insufficient evidence to recommend the use of 4C Mortality score, COPE, and qSOFA. *(Very low quality of evidence)*

To guide in the expectant monitoring of hospitalized patients:

We suggest the use of the 4C Deterioration. *(Low quality of evidence; Conditional recommendation)*

There is insufficient evidence to recommend the use of MEWS and NEWS2 models. *(Very low quality of evidence)*