

Clinical management of COVID-19

December 2024

Key points

- Establishing and sustaining clear pathways to clinical care remains a critical element of the response to COVID-19.
- As per the WHO Director-General's standing recommendations, countries are encouraged to deliver optimal clinical care for COVID-19, appropriately integrated into all levels of health service, including access to proven treatments. Individuals who test positive for SARS-CoV-2 should be immediately linked to a clinical care pathway.
- Countries should adapt COVID-19 clinical care pathways for women who are pregnant or breastfeeding and children.
- Countries are encouraged to provide access to follow-up care to detect post COVID-19 condition (also known as long COVID or PCC).
- Countries should plan for COVID-19 surges using estimation tools for essential supplies, equipment and the work force.

Introduction

Nearly five years since the first SARS-CoV-2 infections were reported, the global COVID-19 situation has changed substantially. With widespread immunity from both vaccination and prior infection, currently circulating variants are now associated with lower severe disease rates and fewer hospitalizations. As a result, most countries have lifted public health and social measures and have moved to end their national COVID-19 emergencies. In this context, many around the world wish to move on and forget their experiences with the COVID-19 pandemic.

COVID-19 continues to circulate widely, however, presenting significant challenges to health systems worldwide. Tens of thousands of people are infected or re-infected with SARS-CoV-2 each week. From mid-September to mid-October 2024, WHO received reports of more than 296 000 confirmed cases of COVID-19 (see the [WHO COVID-19 Dashboard](#)). This figure is certainly an underestimate, as there has been a persistent decline in COVID-19 surveillance and reporting, and wastewater surveillance indicates that circulation is 2–20 times higher than the case numbers that are reported.

It is vital that countries sustain the public health response to COVID-19 amid ongoing illness and death and the emergence of SARS-CoV-2 variants, adapting it to the requirements based on the current COVID-19 situation and risk. Countries are increasingly balancing COVID-19 prevention and response activities with other social and economic priorities.

On 9 August 2023, the WHO Director-General of published [standing recommendations to support ongoing efforts for the prevention and control of COVID-19](#) (1) in accordance with provisions of Articles 16 to 18, and

50 to 53 of the International Health Regulations (2005) (IHR). These standing recommendations are in effect for all States Parties (WHO Member States plus Liechtenstein and the Holy See) until 30 April 2025 (1).

The updated WHO [Strategic Preparedness and Response plan for 2023-2025](#) (2) is designed to help countries end the emergency phase of the pandemic and shift to comprehensive, long-term management of COVID-19 within broader disease prevention and control programmes. As countries continue to strengthen COVID-19 programmes within their public health systems, two objectives remain critical: 1) reducing the risk of emergence of and controlling the circulation of SARS-CoV-2 variants with increased growth rates and immune escape, with a particular focus on reducing infection in high-risk and vulnerable populations; and 2) diagnosing and treating COVID-19 to reduce mortality, acute severe disease morbidity and long-term sequelae.

Purpose of this document

In 2022 and 2023, WHO released a package of policy briefs designed to help countries formulate policies to manage SARS-CoV-2 transmission, particularly in high-risk and vulnerable populations, and to reduce morbidity, mortality and long-term sequelae from COVID-19.

The policy briefs have been updated to reflect the current COVID-19 situation and risk, the approaches outlined in the September 2023 WHO document [Ending the COVID-19 emergency and transitioning from emergency phase to longer-term disease management: Guidance on calibrating the response](#) (3) and the Director General's Standing Recommendations for COVID-19 (1).

This policy brief is intended for national and sub-national policy- and decision-makers in ministries of health other governments agencies and partners engaged in and responsible for the health of the populations they serve. It provides a concise overview of the key recommended actions for Member States to take based on WHO COVID-19 technical guidance and strategies.

Essential actions for Member States to consider in adjusting COVID-19 policies

[The WHO Director-General's standing recommendations for COVID-19](#) recommends all Member States to continue to deliver optimal clinical care for COVID-19. They are encouraged to ensure provision, and related scaling-up mechanisms, of appropriate clinical care, with infection prevention and control measures in place, for suspected and confirmed COVID-19 cases in clinical settings.

COVID-19 clinical care should be integrated within health services as appropriate, and access to provision of evidence-based care and health products for patients with acute COVID-19 and post COVID-19 condition should be ensured (1).

1. Integrate COVID-19 clinical care pathways into primary health care systems

Quality clinical care for patients with COVID-19 requires early diagnosis and testing and must be accompanied by appropriate clinical care interventions. Identification and early appropriate treatment of patients at high risk of severe disease can reduce the number of cases of severe disease and hospitalization. Consequently, more lives will be saved.

Member States are advised to follow the World Health Organization (WHO) Living clinical guidelines for COVID-19 to drive policy at national and subnational levels. These guidelines cover [therapeutics](#), [supportive clinical management](#) and [preventative therapy](#). They continuously incorporate emerging evidence from clinical trials on supportive care interventions (such as oxygen and non-invasive ventilation) and therapeutic interventions (such as antivirals and immunomodulators) (4, 6).

These WHO recommendations have been distilled into infographics and training modules: [COVID-19 Clinical Care Pathway](#) (5) and the [Clinical care of severe acute respiratory infections – Tool kit](#) (7). These tools can be incorporated into national and subnational training, as necessary.

2. Ensure individuals who test positive for SARS-Co-2 are immediately linked to a clinical care pathway

Screening and testing protocols should be accessible in all units of the health system. This includes hospital settings, primary care centres and clinics where persons at high risk for severe COVID-19 may seek care. A COVID-19 testing-to-clinical-care linkage should be in place at facilities where noncommunicable diseases and infections, such as HIV, TB and malaria, and conditions causing immunosuppression are managed. In settings where home testing is used, linkages to clinical care and treatments also need to be in place and supported.

3. Ensure access to appropriate clinical interventions and treatments for patients with COVID-19

Access to appropriate clinical interventions and treatments for patients with COVID-19 includes oral antivirals such as nirmatrelvir-ritonavir, molnupiravir or intravenous remdesivir for patients with non-severe disease but who are at high risk of severe disease, based on patient profile and local resources. Patients with severe disease should have access to oxygen therapy, corticosteroids, interleukin-6 inhibitor, and baricitinib, based on patient profile and resources (see [Clinical management of COVID-19: Living guideline, 18 August 2023](#)) (4).

COVID-19 patients who are at greater risk for severe disease and death include older or immunocompromised individuals and those with co-morbidities including hypertension, cardiovascular disease, chronic respiratory disease and diabetes. Following confirmation of SARS-CoV-2 infection, it is critical for patients in these categories to receive prompt access to appropriate clinical interventions and be monitored carefully, including in a hospital, if necessary.

4. Adapt COVID-19 clinical care pathways for women who are pregnant or breastfeeding and children

WHO advises that all pregnant women with a history of contact with a person with confirmed COVID-19 be carefully monitored. Pregnant or recently pregnant women with suspected or confirmed mild or moderate COVID-19 may not require acute care in a hospital, unless there is concern for rapid deterioration or an inability to promptly return to hospital. Isolation to contain virus transmission is recommended and can be done at a health facility, community facility or at home, according to established COVID-19 care pathways. Pregnant or recently pregnant women with severe or critical COVID-19 require acute care in the hospital and specific interventions to improve maternal and foetal survival.

Mothers with suspected or confirmed COVID-19 should be encouraged to initiate and continue breastfeeding. Based on the available evidence, mothers should be counselled that the benefits of breastfeeding substantially outweigh the potential risks of transmission.

In children, the differential diagnosis for respiratory distress is particularly important, and COVID-19 confirmation needs to be made prior to determining severity. Children with suspected or confirmed SARS-CoV-2 infection should be kept together with caregivers wherever possible (if caregivers also have suspected or confirmed SARS-CoV-2 infection) and cared for in child-friendly spaces accounting for their specific medical, nursing, nutritional and mental health and psychosocial support needs. Alternative delivery platforms such as home-based, phone, telemedicine or community outreach teams should be considered to assist with monitoring.

5. Provide access to follow-up care for post COVID-19 condition (also known as long COVID or PCC)

Acute COVID-19 can lead to serious long-term complications, known as post COVID-19 condition. The following symptoms of post COVID-19 condition are common: fatigue, dyspnoea, cough, sleep disturbances, anxiety, depression, cognitive impairment and difficulty concentrating. Any of these symptoms may persist for more than 12 weeks. The needs of patients with post COVID-19 condition will vary, but many will require rehabilitation and other appropriate types of care. Post-acute sequelae of COVID-19 include other medical conditions occurring at a higher-than-expected rate, potentially affecting a wide range of organ systems. The consequences include kidney impairment, heart disease, stroke and others. These needs may stretch existing health systems. National authorities are encouraged to plan and budget for multidisciplinary post COVID-19 condition programmes and adopt sustainable financing to ensure equitable access to relevant therapies.

WHO remains committed to learning more about medium- and long-term outcomes for people with post COVID-19 condition and is developing clinical practice guidelines for management of affected individuals based on new evidence generated by the international medical research community and first responders. A WHO Guideline Development Group consisting of global experts, frontline providers and affected individuals is presently at work on new guidelines on diagnosis, treatment and rehabilitation. WHO-established clinical case definitions and other resources are available at [Post COVID-19 conditions](#) and [Rehabilitation and COVID-19](#) (8, 9).

Member States and funders are urged to support research studies on post COVID-19 condition in the interest of improved understanding of this condition around the world, not just in high-income countries, and design optimal clinical care for patients.

6. Plan for COVID-19 surges

Using estimation tools for essential supplies, equipment and workforce can ensure financial sustainability for the mid- and long-term integration of COVID-19 clinical care pathways into the health system. In countries where oxygen is a limited resource, investing in sustainable large-scale oxygen systems is advisable. Useful resources include: [WHO COVID-19 Essential Supplies Forecasting Tool \(COVID-ESFT\) v4.1](#); and [Oxygen - Global](#) (10, 11).

Conclusions

The policy considerations outlined in this brief come from existing WHO living guidelines which were developed in response to an urgent need for reliable, accessible and regularly updated guidance. These guidelines aim to contextualize emerging findings and provide clear recommendations for clinical practice, informing policy and practice worldwide.

COVID-19 vaccination continues to substantially reduce the risk of severe disease, hospitalization, and death. It also reduces the risk of post COVID-19 condition. However, low vaccine demand and insufficient access to vaccines leave many populations vulnerable and in need of treatment. Establishing and sustaining clear clinical care pathways for COVID-19 remains a crucial element of the public health response.

Plans for updating

WHO will continue to monitor the situation closely for any changes that may affect this policy brief. WHO will issue necessary updates as evidence becomes available and is reviewed.

References

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