

Living guidance for clinical management of COVID-19

LIVING GUIDANCE
23 NOVEMBER 2021



This document is the update of an interim guidance originally published under the title "[Clinical management of COVID-19: interim guidance, 27 May 2020](#)" and last updated as "[COVID-19 Clinical management: Living guidance, 25 January 2021](#)".

WHO continues to monitor the situation closely for any changes that may affect this interim guidance. Should any factors change, WHO will issue a further update. Otherwise, this interim guidance document will expire 2 years after the date of publication.

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Foreword

The *Strategic preparedness and response plan* outlines the World Health Organization (WHO) strategic objectives to end the COVID-19 pandemic and assists national stakeholders with developing a structured approach to their response. The WHO's main objectives for COVID-19 are to:

- 1) suppress transmission;
- 2) provide optimized care for all patients; and save lives
- 3) minimize the impact of the epidemic on health systems, social services and economic activity.

To achieve these objectives, the WHO *Operational considerations for case management of COVID-19 in health facility and community* (1) describes key actions that should be taken in different scenarios: no cases; sporadic cases; clusters of cases; and community transmission, in order to enable delivery of clinical and public health services in a timely fashion.

This guideline is based on the above strategic priorities, and is intended for clinicians involved in the care of patients with suspected or confirmed COVID-19. It is not meant to replace clinical judgment or specialist consultation but rather to strengthen frontline clinical management and the public health response. Considerations for special and vulnerable populations, such as paediatric patients, older people and pregnant women, are highlighted throughout the text.

In this document we refer to the **COVID-19 care pathway (Annex 1)**. This describes a coordinated and multidisciplinary care pathway that a patient enters after s/he is **screened for COVID-19 and becomes a suspect COVID-19 case**, and follows the continuum of their care until release from the pathway. The objective is to ensure delivery of safe and quality care while stopping onwards viral transmission. All others enter the health system in the non-COVID-19 pathway. For the most up-to-date technical guidance related to the COVID-19 response, visit WHO Country & Technical Guidance (2).

Basic psychosocial support skills are at the core of any clinical intervention for COVID-19. Such skills are indispensable for all involved in the COVID-19 clinical response, whether they identify as mental health and psychosocial providers or not. Basic psychosocial skills are essential for supporting the emotional well-being of people who have COVID-19, those who have lost someone to COVID-19, or are family members and carers who are caring for someone with COVID-19 or have recovered from COVID-19.

Summary

Info Box

Clinical guideline: What are the interventions to manage patients with COVID-19?

Target audience: The target audience is clinicians and health care decision-makers.

Current practice: The evidence base for clinical management of COVID-19 is increasing rapidly. Numerous randomized and observational trials are underway to inform practice. This version of *Clinical management of COVID-19 patients: living guideline* includes two new recommendations.

Recommendations: In this update, the panel makes a conditional recommendation to use corticosteroids in addition to supportive care (rather than either intravenous immune globulin [IVIG] plus supportive care or supportive care alone), in hospitalized children aged 0–19 who meet a standard case definition for multisystem inflammatory syndrome in children (MIS-C). The panel also makes a conditional recommendation for the use of corticosteroids in addition to standard of care in hospitalized children aged 0–19 who meet both a standard case definition for MIS-C and diagnostic criteria for Kawasaki disease. Previous recommendations have not changed.

How this guideline was created? A Guideline Development Group (GDG) of content experts, clinicians, patients, ethicists, and methodologists produced recommendations following standards for trustworthy guideline development using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) approach. No conflict of interest was identified for any panel member or other contributors to the guideline development process. This living guideline represents an innovation from the World Health Organization (WHO), driven by the urgent need for global collaboration to provide trustworthy and evolving COVID-19 guidance informing policy and practice worldwide. WHO has partnered with the non-profit MAGIC Evidence Ecosystem Foundation (MAGIC) for support in dissemination of living guidelines for COVID-19.

The latest evidence: The GDG's recommendations for corticosteroid use in hospitalized children who meet the standard clinical definition for MIS-C were informed by the results of systematic review and meta-analysis of the literature that pooled data from 3 studies, $n = 885$ (3)(4)(5).

From these studies, for the three comparisons: a) adding corticosteroids to IVIG compared to IVIG alone; b) corticosteroids compared to IVIG; and c) adding corticosteroids to IVIG compared to corticosteroids alone and for all prioritized outcomes including death, need for invasive mechanical ventilation two days after initiation of treatment, need for hemodynamic support two days after initiation of treatment, coronary artery dilation, acute left ventricular dysfunction 2 days after initiation of treatment, and reduction in fever 2 days after initiation of treatment, the evidence was of very low certainty.

Understanding the recommendations:

When moving from evidence to recommendations to use corticosteroids in hospitalized children who meet the standard definition for MIS-C, the GDG recognized the very low certainty of evidence. The majority of GDG members inferred that most well-informed patients, and their families, would, despite the high uncertainty of important benefit want to receive some therapeutic agent in addition to supportive care for MIS-C, compared with no specific therapeutic agent. In doing so, patients would be placing a high value on uncertain benefit and a low value on avoiding any adverse effects associated with treatment.

Abbreviations

ADL	activities of daily living
ARDS	acute respiratory distress syndrome
AWaRe	Access, Watch or Reserve (antibiotics)
BiPAP	bilevel positive airway pressure
BMI	body mass index
BP	blood pressure
bpm	beats per minute
COPD	chronic obstructive pulmonary disease
CPAP	continuous positive airway pressure
CRF	case record form
CT	computed tomography
DIC	disseminated intravascular coagulation
DVT	deep vein thrombosis
ECMO	extracorporeal membrane oxygenation
FIO ₂	fraction of inspired oxygen
GDG	Guideline Development Group
GRADE	Grading of Recommendations Assessment, Development and Evaluation
HFNO	high-flow nasal oxygen
HIV	human immunodeficiency virus
ICU	intensive care unit
IFRC	International Federation of Red Cross and Red Crescent Societies
IPC	infection prevention and control
IQR	interquartile range
IVIG	intravenous immune globulin
LRT	lower respiratory tract
LTCF	long-term care facility
MAGIC	Magic Evidence Ecosystem Foundation
MAP	mean arterial pressure
MERS-CoV	Middle East respiratory syndrome coronavirus
MHPSS	mental health and psychosocial support
MIS-C	multisystem inflammatory syndrome in children
NAAT	nucleic acid amplification test
NCD	noncommunicable disease
NICU	neonatal intensive care unit
NIV	non-invasive ventilation

OI	Oxygenation Index
OSI	Oxygenation Index using SpO ₂
PaO ₂	partial pressure arterial oxygen
PBW	predicted body weight
PEEP	positive end-expiratory pressure
PICS	post-intensive care syndrome
PPE	personal protective equipment
PTSD	post-traumatic stress disorder
PUI	person/patient under investigation
QNS	quality assurance of norms and standards
RCT	randomized controlled trial
RDT	rapid diagnostic test
RM	recruitment manoeuvre
RT-PCR	reverse transcription polymerase chain reaction
SARS-CoV-2	severe acute respiratory syndrome coronavirus
SBP	systolic blood pressure
SIRS	systemic inflammatory response syndrome
SOFA	sequential organ failure assessment
SpO ₂	oxygen saturation
TB	tuberculosis
UNICEF	United Nations Children's Fund
URT	upper respiratory tract
VoC	variants of concern
VTE	venous thromboembolism
WHO	World Health Organization

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