

Clinical Management for COVID-19

Advancing the care pathway

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09 March 2022

COVID-19 CLINICAL CARE PATHWAY



Confirm



Assess



Respond



Evaluate





CONFIRM

Confirm SARS-CoV-2 infection

Ensure prompt diagnosis using a **molecular (NAAT/PCR) or antigen-detection test (i.e. Ag-RDT)**.

Depending on the epidemiological situation, **self-testing using Ag-RDT can be used for diagnosis** to facilitate linkage to clinical care and therapeutics.

Types of tests:

<div style="text-align: center; margin-bottom: 10px;"> </div> <p>Nucleic acid amplification testing</p> <p><i>Detects genetic material of the virus</i></p> <p>Uses upper respiratory specimens* to diagnose acute SARS-CoV-2 infection. Nucleic acid amplification testing (NAAT), for example RT-PCR, is the reference method for detection of acute SARS-CoV-2 infection. Results: usually available within 24 hours. Testing takes 30 minutes to 4 hours (depending on the test), but transport to the testing laboratory can add hours to days.</p>	<div style="text-align: center; margin-bottom: 10px;"> </div> <p>Antigen</p> <p><i>Detection rapid diagnostic testing – detects viral protein(s)</i></p> <p>Uses upper respiratory specimens* to diagnose acute SARS-CoV-2 infection. Performance is best within first 5-7 days of symptoms. Results: within 15-30 minutes, not requiring laboratory infrastructure.</p>	<div style="text-align: center; margin-bottom: 10px;"> </div> <p>Antibody testing</p> <p><i>Detects antibodies against the virus</i></p> <p>Uses serum/plasma or whole blood specimens to detect antibodies generated by prior SARS-CoV-2 infection or vaccination. SARS-CoV-2 antibodies are usually detectable 1-2 weeks after infection or vaccination. Results: within 24 hours; point of care tests within 10-30 mins.</p>
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*Some NAA tests and some Ag-RDTs are designed to work on upper respiratory track samples or saliva
For more information: https://www.youtube.com/watch?v=PhdSdJu_QXI

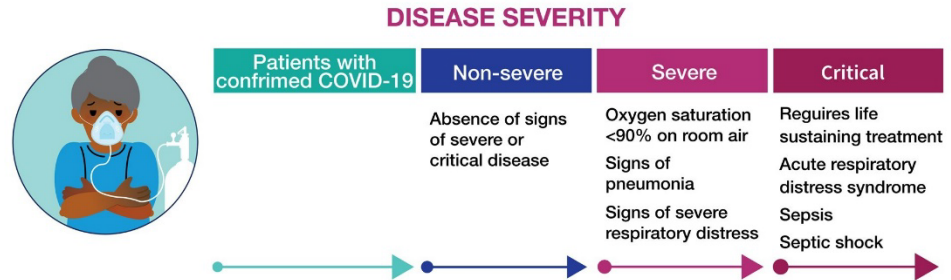


ASSESS

Assess symptoms, risk factors and severity



Provide early clinical assessment and evaluation to determine if the patient has **symptoms**, **emergency signs** or **risk factors** that may warrant treatment, clinical referral or admission to hospital care.



Risk factors:

> 60 years, hypertension, diabetes, cardiac disease, chronic lung disease, cerebrovascular disease, dementia, mental disorders, chronic kidney disease, immunosuppression (including HIV), obesity, cancer and unvaccinated against COVID-19.

Risk factors in pregnant or recently pregnant women: advanced maternal age (≥ 35 years), obesity, chronic medical conditions, and pregnancy specific disorders (e.g., gestational diabetes and pre-eclampsia/eclampsia).

Emergency signs are obstructed or absent breathing, severe respiratory distress, cyanosis, shock, coma and/or convulsions.



RESPOND

Respond with appropriate care and treatment.

Treatment selection is determined by **severity of disease and risk factors**.

For patients with mild or moderate COVID-19 (non-severe symptoms) without risk factors for severe disease the treatment care plan includes:

- **Symptom management** and **supportive care**
- **Monitoring** (at home, or in the community)

For patients with mild or moderate COVID-19 (non-severe symptoms) AND risk factors for severe disease consider including in the treatment care plan:

- **Molnupiravir** (excluding pregnant or breastfeeding women and children)
- OR
- **Sotrovimab** or **casirivimab and imdevimab*** (neutralizing monoclonal antibodies)

*Casirivimab and imdevimab to be used in settings where viral genotyping can confirm a susceptible SARS-CoV-2 variant (i.e., excluding Omicron BA1)



Remember the **FIVE RIGHTS** of drug administration:



RESPOND

Respond with appropriate care and treatment.

Treatment selection is determined by **severity of disease and risk factors**.

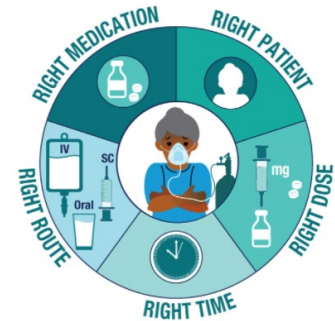
For patients with severe or critical COVID-19 immediately assess for **emergency signs**.

For patients with severe or critical COVID-19, the treatment care plan includes:

- **Oxygen therapy** AND
- **Corticosteroids** AND
- **Venous thromboembolism prophylaxis** AND
- Interleukin-6 receptor blocker (**tocilizumab** OR **sarilumab**) OR **baricitinib**
- For seronegative patients, consider including **casirivimab and imdevimab*** (neutralizing monoclonal antibodies)
- **Symptom management** and supportive care



Remember the **FIVE RIGHTS** of drug administration:



EVALUATE



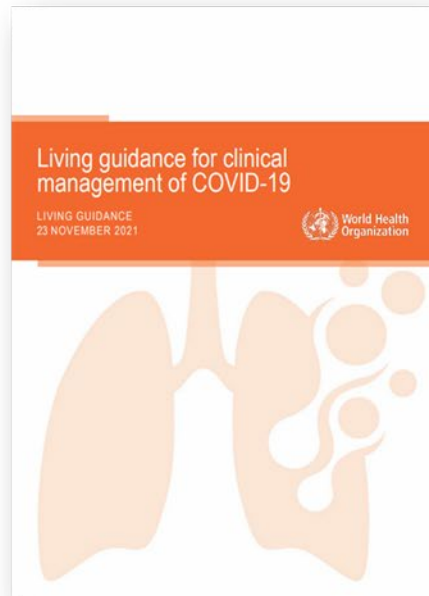
Evaluate clinical response and recovery

- All patients receiving COVID-19 treatment require clinical monitoring and follow up by a health care professional throughout their illness and recovery, including those who develop **post COVID-19 condition**.
- If patients have **emergency signs** OR **SpO2 <90%**, seek urgent medical assistance.
- If patients have **SpO2 between 90-94%, worsening symptoms, side-effects or concerns**, patient or caregiver should immediately seek advice from a health care professional.
- It is important that all COVID-19 treatments are prescribed, completed or stopped under guidance of a health care professional.
- Ensure reporting of any adverse events (AE) through local or national reporting systems.

Advise patient or caregivers to monitor for change or worsening of symptoms, such as chest pain, fast or difficulty in breathing (at rest or while speaking), fast heart rate, palpitations, confusion, altered mental status, or any other emergency signs. If present, instruct patient or caregivers to call for emergency help according to national protocols.



Living guidance for clinical management of COVID-19



The WHO *COVID-19 Clinical management: living guidance* contains the Organization's most up-to-date recommendations for the clinical management of people with COVID-19. Providing guidance that is comprehensive and holistic for the optimal care of COVID-19 patients throughout their entire illness is important.

The (second) **latest version** of this living guidance is available in both pdf format (via the 'Download' button) and via an [online platform](#), and is updated regularly as new evidence emerges.

The (third) **latest version** of this living guidance is available in both [pdf](#) format (via the 'Download' button) and via an [online platform](#), and is updated regularly as new evidence emerges.

This updated (third) version contains two **new** recommendations regarding hospitalized children with Multisystem Inflammatory Syndrome (MIS-C), which includes a:

- [conditional recommendation to use corticosteroids](#) in addition to supportive care (rather than either IVIG plus supportive care, or supportive care alone), for hospitalized children aged 0-18 years who meet a standard case definition for MIS-C;
- [conditional recommendation to use corticosteroids](#) in addition to standard of care for hospitalized children aged 0-18 years who meet both a standard case definition for MIS-C and diagnostic criteria for Kawasaki disease.

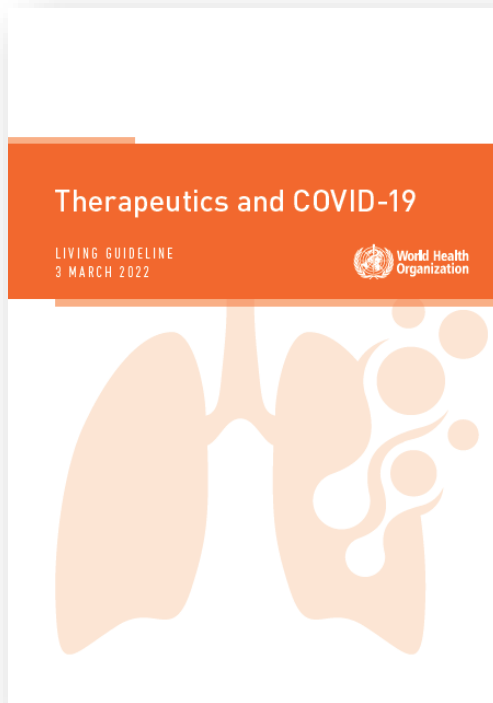
Guidelines regarding the use of drugs to treat COVID-19 are included in a separate WHO document, *Therapeutics and COVID-19: living guideline*, that can via an [online platform](#) and in [pdf](#) format (or click 'PDF' in top right corner of online platform).

Guidelines regarding the use of drugs to prevent COVID-19 are included in a separate document, *WHO Living guideline: Drugs to prevent COVID-19*, that can be accessed via an [online platform](#) and in [pdf](#) format (or click 'PDF' in top right corner of online platform).

Planning the next revision of the Living Guidance for Clinical Management of COVID-19:

- **Heparin anticoagulation - three different doses**
- **Non-invasive ventilation**
- **Prognostic models**

Therapeutics and COVID-19



This ninth version of the WHO living guideline now contains 15 recommendations, including one new recommendation regarding use of molnupiravir. Two updates have been made to previous existing recommendations were made in this latest version.

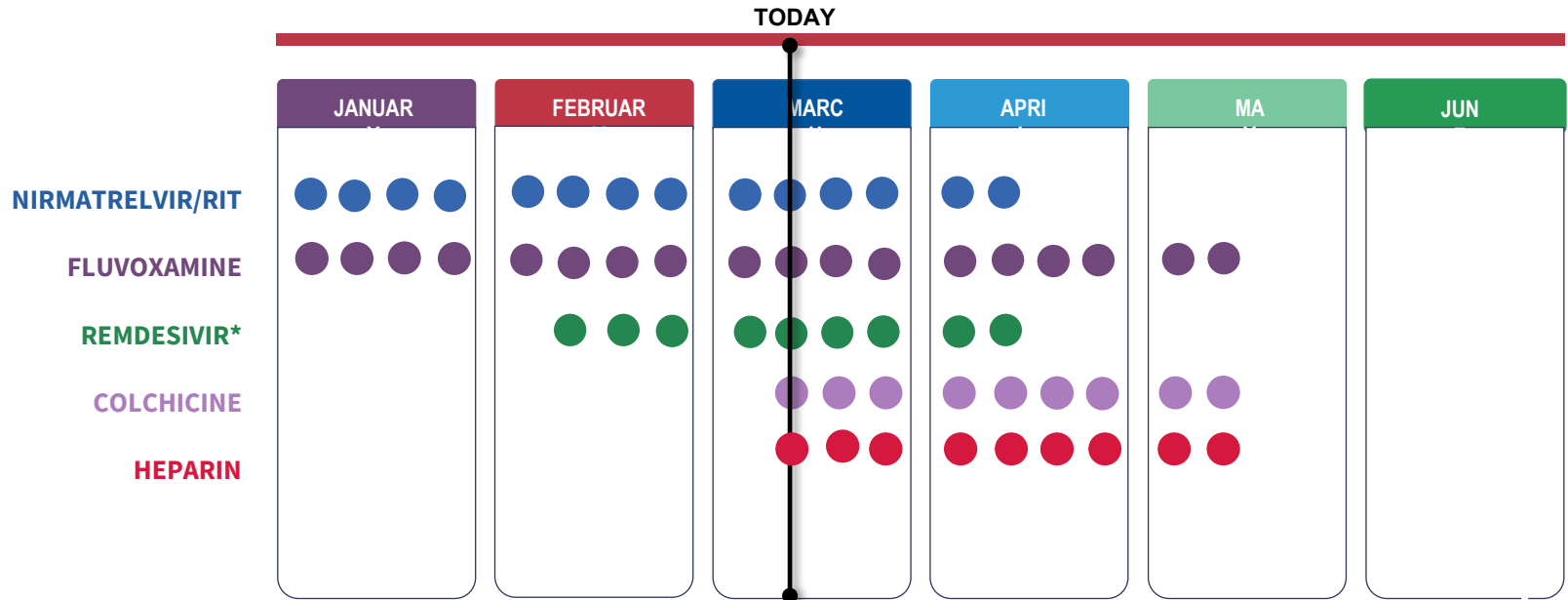
The WHO *Therapeutics and COVID-19: living guideline* currently includes a:

- ** **NEW** ** [conditional recommendation for use of Molnupiravir](#) for patients with non-severe COVID-19, conditional for those at highest risk of hospitalization (excluding pregnant or breastfeeding women, and children) (published 03 March 2022);
- ** **UPDATED**** [conditional recommendation to use a combination of neutralizing monoclonal antibodies \(casirivimab and imdevimab\)](#) (published 03 March 2022);
- ** **UPDATED**** [conditional recommendation against remdesivir](#) in hospitalized patients with COVID-19 (published 03 March 2022);
- [strong recommendation for the use of baricitinib](#) as an alternative to interleukin-6 (IL-6) receptor blockers, in combination with corticosteroids, in patients with severe or critical COVID-19 (published 14 January 2022);
- [conditional recommendation against the use of ruxolitinib and tofacitinib](#) for patients with severe or critical COVID-19 (published 14 January 2022);
- [conditional recommendation for the use of sotrovimab](#) in patients with non-severe COVID-19, conditional for those at highest risk of hospitalization (published 14 January 2022);
- [strong recommendation against convalescent plasma](#) in patients with non-severe COVID-19 (published 7 December 2021);
- [recommendation not to use convalescent plasma](#) in patients with severe or critical COVID-19 except in the context of a clinical trial (published 7 December 2021);
- [conditional recommendation to use a combination of neutralizing monoclonal antibodies \(casirivimab and imdevimab\)](#) in non-severe COVID-19 patients at the highest risk of severe disease (published 24 September 2021);
- [conditional recommendation to use a combination of neutralizing monoclonal antibodies \(casirivimab and imdevimab\)](#) in severe and critically ill COVID-19 patients with seronegative status (published 24 September 2021);
- [strong recommendation to use IL-6 receptor blockers \(tocilizumab or sarilumab\)](#) in patients with severe or critical COVID-19 (published 6 July 2021);
- [recommendation not to use ivermectin](#) in patients with COVID-19 except in the context of a clinical trial (published 31 March 2021);
- [strong recommendation against hydroxychloroquine](#) in patients with COVID-19 of any severity (published 17 December 2020);
- [strong recommendation against lopinavir/ritonavir](#) in patients with COVID-19 of any severity (published 17 December 2020);
- [conditional recommendation against remdesivir](#) in hospitalized patients with COVID-19 (published 20 November 2020);
- [strong recommendation to use systemic corticosteroids](#) in patients with severe and critical COVID-19 (published 2 September 2020); and
- [conditional recommendation against systemic corticosteroids](#) in patients with non-severe COVID-19 (published 2 September 2020).



COVID-19 Therapeutics under assessment

09 March 2022



CONSIDERATIONS:

For molecules to be considered by the *WHO Therapeutic Steering Committee* there must be sufficient data available to be shared. Timeline from initial data sharing to publishing of guideline is on average 8-10 weeks.

* Indicates a previously assessed molecule under review given new clinical trial data



Thank you

[Health Care Readiness \(who.int\)](https://www.who.int)

[Therapeutics and COVID-19 \(who.int\)](https://www.who.int)

[The WHO Global Clinical Platform for COVID-19](https://www.who.int)

[COVID-19 Clinical Care Pathway \(who.int\)](https://www.who.int)

[A living WHO guideline on drugs for covid-19 | The BMJ](https://www.bmj.com)

[Therapeutics and COVID-19: living guideline \(magicapp.org\)](https://magicapp.org)

[Recommendations for national SARS-CoV-2 testing strategies and diagnostic capacities \(who.int\)](https://www.who.int)

[Antigen-detection in the diagnosis of SARS-CoV-2 infection \(who.int\)](https://www.who.int)

COVID-19 CLINICAL CARE PATHWAY

