

# A living WHO guideline on drugs for COVID-19



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## Updates

WHO has produced an update to the living guideline on drugs for COVID-19 in the article published by BMJ. It replaces earlier versions (4 September and 20 November 2020) and supersedes the BMJ Rapid Recommendations on remdesivir published on 2 July 2020. The previous versions can be found as data supplements. New recommendations will be published as updates to this guideline. (BMJ 2020;370:m3379 <https://www.bmj.com/content/370/bmj.m3379>) Click for updates.

**Readers note** This is the third version (update 2) of the living guideline (BMJ 2020;370:m3379). When citing this article, please consider adding the update number and date of access for clarity.

## Abstract

**Clinical question** What is the role of drug interventions in the treatment of patients with COVID-19?

**New recommendation** The latest version of this WHO living guidance provides strong recommendations against the use of hydroxychloroquine and lopinavir-ritonavir in patients with COVID-19 regardless of disease severity. These recommendations follow the publication of results from the WHO SOLIDARITY trial.

**Recommendations** This guidance adds to recommendations for corticosteroids and remdesivir published in the previous versions, with no changes made in this update: (a) a strong recommendation for systemic corticosteroids in patients with severe and critical COVID-19, (b) a conditional recommendation against systemic corticosteroids in patients with non-severe COVID-19, (c) a conditional recommendation against remdesivir in hospitalised patients with COVID-19.

**How this guideline was created** WHO has partnered with the non-profit Magic Evidence Ecosystem Foundation (MAGIC) for methodologic support, to develop and disseminate living guidance for COVID-19 drug treatments, based on a living systematic review and network analysis. An international standing Guideline Development Group (GDG) of content experts, clinicians, patients, and methodologists produced recommendations following standards for trustworthy guideline development using the GRADE approach. No competing interests were identified for any panel member.

**Understanding the new recommendation** When moving from the to the strong recommendations against the use of hydroxychloroquine and lopinavir-ritonavir in patients with COVID-19, the panel was informed by a living systematic review and network meta-analysis of 30 trials with 10 921 participants for hydroxychloroquine and seven trials with 7429 participants for lopinavir-ritonavir. The trials for both drugs included inpatients and outpatients. Moderate certainty evidence for both drugs demonstrated no reduction in mortality or need for mechanical ventilation. There was also low certainty of evidence for harm with both drugs, including diarrhoea and nausea/vomiting. The panel did not anticipate important variability when it comes to patient values and preferences. In addition, the panel decided that contextual factors such as resources, feasibility, acceptability, and equity for countries and health care systems did not alter the recommendation.