
Warnings about Potential Treatments for COVID-19



An early-released review warns about potentially serious adverse events for chloroquine, hydroxychloroquine and azithromycin when used to treat and prevent [COVID-19](#). It comes only days after the U.S. Centers for Disease Control and Prevention (CDC) had removed guidelines for using hydroxychloroquine as a potential treatment.

If you want to share your experience and perspective on COVID-19, [please do](#).

The review (Juurink n.d.) early published in the Canadian Medical Association Journal, summarises potential harms associated with these drugs as well as their evidence-based management. It is noted that the use of either chloroquine or hydroxychloroquine and azithromycin in COVID-19 patients is currently supported primarily by in vitro data and weak studies involving humans.

Potential adverse effects include:

- Cardiac arrhythmias
- Hypoglycemia
- Neuropsychiatric effects (eg agitation, hallucinations and paranoia)
- Drug-drug interactions
- Considerable genetic variability in metabolism, which affects the response to treatment
- Extreme toxicity of chloroquine and hydroxychloroquine in overdose (can cause seizures, coma and cardiac arrest)
- Drug shortages with regard to primary use of the drugs

Considering the above, there is possibility that these treatments could worsen the disease. At the same time the quality of evidence supporting their effectiveness in patients with COVID-19 is insufficient, and better evidence base is needed before routine prescription of these drugs to COVID-19 patients. Currently, careful patient selection and monitoring would help to mitigate potential serious harms.

CDC Removes Hydroxychloroquine Guidance

Earlier this week Citizens for Responsibility and Ethics in Washington, a watchdog group, has [flagged](#) the changes on the CDC's website, namely that CDC [removed](#) the guidance for using hydroxychloroquine as a potential treatment for the new coronavirus. Previously it was [reported](#) that the CDC published the guidance based on unattributed anecdotes rather than peer-reviewed science, and [did](#) this under personal pressure from President Trump.

You may also like: [RECOVERY: World's Largest COVID-19 Clinical Trial](#)

Previously, the [CDC page said](#), "Although optimal dosing and duration of hydroxychloroquine for treatment of COVID-19 are unknown, some US clinicians have reported anecdotally different hydroxychloroquine dosing," with dosages following. It also said that both drugs were "currently recommended for treatment of hospitalized COVID-19 patients in several countries."

It was updated on 7 April, to [say](#), "There are no drugs or other therapeutics approved by the US Food and Drug Administration to prevent or treat COVID-19." It also says, "hydroxychloroquine and chloroquine are under investigation in clinical trials for pre-exposure or post-exposure prophylaxis of SARS-CoV-2 infection, and treatment of patients with mild, moderate, and severe COVID-19," and, "Current clinical management includes infection prevention and control measures and supportive care, including supplemental oxygen and mechanical ventilatory support when indicated."

Despite warnings from medical experts, including Director of the National Institute of Allergy and Infectious Diseases Dr Antony Fauci, Trump has repeatedly touted the drugs [citing](#) a small French [study](#), *Hydroxychloroquine and azithromycin as a treatment of Covid-19: results of an open-label non-randomized clinical trial*, recently published in a medical journal. The study of 36 coronavirus patients reported that hydroxychloroquine treatment was "significantly associated" with reducing and beating the virus, but the findings [were not](#) all they seemed.

On 3 April the *International Society on Antimicrobial Chemotherapy (ISAC)* released a [notice](#) stating that the study did not meet its "expected standard, especially relating to the lack of better explanations of the inclusion criteria and the triage of patients to ensure patient safety." Retraction Watch has [pointed out](#) that the notice was from the ISAC and not the journal itself, and that society did not appear to be taking additional action.

Earlier this month, the European Medicines Agency has [warned](#) against widespread use of chloroquine and hydroxychloroquine to treat [COVID-19](#) saying in a [statement](#) that the efficacy of these two medicines in treating COVID-19 was yet to be shown in studies.

References

Juurlink DN (n.d.) Safety considerations with chloroquine, hydroxychloroquine and azithromycin in the management of SARS-CoV-2 infection. CMAJ; early-released 8 April 2020. Available from <https://www.cmaj.ca/content/cmaj/early/2020/04/08/cmaj.200528.full.pdf>

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