

# Horse dewormer Ivermectin for COVID-19 review update: 11 trials and no evidence of benefit

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Ivermectin tablets seized by the Austrian Federal Ministry of Finance (Bundesministerium für Finanzen) Customs agency. Credit: BMF/Zoll. Wikimedia Commons, [CC BY 2.0](https://commons.wikimedia.org/licenses/by/2.0/)

There remains no evidence to support the use of ivermectin for treating or preventing COVID-19 infection, state the authors of an updated Cochrane Review, which now contains 11 trials across 3,409 people. The authors note that evidence is limited, and evaluation of ivermectin is continuing in ongoing studies.

Ivermectin, a drug used to treat parasites such as scabies in humans and intestinal helminths in cattle, was screened in 2020 for activity against COVID-19. Laboratory tests suggested a weak effect on SARS-CoV-2 virus in a test-tube but the dose required for humans would need to be so large it was dismissed as an option.

Small trials suddenly appeared in the literature, suggesting large effects on mortality. This caused an explosion of interest, with some groups lobbying for it to be used worldwide. Shortly after, several of these studies were shown to be fabricated; others had serious data errors and were poorly conducted.

Researchers from the CEOsys project collaborated with the LSTM-based Cochrane Infectious Disease Group (CIDG) to update the original Cochrane Review, published in 2021, that explores the effects of ivermectin in preventing and treating COVID-19 infection. Their original [review](#) was the most talked about review in the history of the *Cochrane Library*.

In the light of these fake and poorly conducted studies, in this review update the authors reappraised eligible studies specifically in relation to research integrity. The authors only included randomized controlled trials (RCTs) that were prospectively registered in a study registry according to the WHO guidelines for clinical trial registration. They used a novel tool that also examined whether the studies had adequate ethics approval and whether the results were plausible: if there were any doubts, studies were put on hold until integrity could be assured by the

authors.

The review authors included 11 trials with 3,409 participants, investigating ivermectin plus standard of care compared to standard of care plus/minus placebo. No study investigated ivermectin for prevention of infection or compared ivermectin to an intervention with proven efficacy. There were five studies treating participants with moderate COVID-19 in inpatient settings and six treating mild COVID-19 cases in outpatient settings. Eight studies were double-blind and placebo controlled, three were open-label. Around 50% of the study results were assessed as low risk of bias. Overall, the review found no evidence to support the use of ivermectin for treating or preventing COVID-19 infection.

Review authors, Dr. Maria Popp and Dr. Stephanie Weibel said: "Overall, the outlook for ivermectin's use to treat or prevent SARS-CoV-2 is poor. While laboratory results showed some promise, real-life outcomes suggest no or very little impact on [mortality rates](#), illness, and length of infection."

In this review update the authors' confidence that ivermectin makes little or no difference has improved since the last review version. Confidence remains low for many other out- and inpatient outcomes because there were only few events measured. However, evaluation of [ivermectin](#) is continuing in 31 ongoing studies, and this review will be updated as results become available.

**More information:** Maria Popp et al, Ivermectin for preventing and treating COVID-19, *Cochrane Database of Systematic Reviews* (2022). [DOI: 10.1002/14651858.CD015017.pub3](https://doi.org/10.1002/14651858.CD015017.pub3)

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