

## **Guest Editorial**



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Laying Some Spurious COVID-19 Treatments to Rest Abigail Zuger, MD, reviewing Bramante CT et al. N Engl J Med 2022 Aug 18 Abdool Karim SS and Devnarain N. N Engl J Med 2022 Aug 18 A rigorous trial showed no benefits from ivermectin, metformin, or fluvoxamine. Many repurposed drugs were thrown at SARS-CoV-2 early in the COVID-19 epidemic.

Did any of them confer legitimate clinical benefit? Researchers constructed a rigorous trial to evaluate the anti-parasitic agent ivermectin, the hypoglycemic agent metformin, and the selective serotonin reuptake inhibitor antidepressant fluvoxamine for treating patients with mild-to-moderate COVID-19. In vitro data, modelling data, and flawed clinical studies have been used to support their use. Between December 2020 and January 2022, 1431 outpatients (mean age, 46) with proven COVID-19 entered a blinded, randomized, placebo-controlled, 2×3 factorial multi-centre trial of these medications.

All participants were overweight or obese (median body-mass index, 30 kg/m2) and had COVID-19 symptoms for about 5 days before enrolment. About half had been vaccinated against COVID-19, and only a minority had medical comorbidities. None of the medications had any effect on a composite endpoint of hypoxemia, emergency room visits, hospitalizations, or death. In a sub-analysis, metformin recipients had a slightly lower risk for emergency room visits, but no reduction in hypoxemia, hospitalization, or death. No effect on COVID-19 symptoms was seen with any drug, and no side effects were noted.

COMMENT Despite results of some previous substandard clinical trials, none of these medications has a place in treating relatively low-risk outpatients with COVID-19. Further, as two editorialists point out, the dearth of side effects does not mean that use of these drugs is benign. Using them precludes use of proven effective COVID-19 treatments, and it diverts the supply of these medications from their legitimate uses.