

**Fluvoxamine for prevention of clinical deterioration in early COVID-19:
Results from a randomized placebo-controlled trial**

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Background: COVID-19 may lead to an excessive inflammatory response resulting in cardiopulmonary complications and lung injury. Fluvoxamine might prevent this clinical deterioration through its action on the sigma1 receptor, which can down-regulate cytokine production.

Methods: Stop COVID was a double-blind, randomized, placebo-controlled, fully-remote (contactless) clinical trial of fluvoxamine. Participants included 152 adult outpatients with confirmed SARS-CoV-2 infection, with symptom onset within 7 days. They were randomized to receive fluvoxamine 100mg (n=80), or placebo (n=72), three times daily for 15 days. The primary outcome was clinical deterioration over 15 days, defined by meeting both of the following: (1) shortness of breath and/or hospitalization for shortness of breath or pneumonia; (2) oxygen saturation <92% on room air or need for supplemental oxygen to achieve oxygen saturation ≥92%.

Results: 152 participants were randomized in the modified intention to treat group. No patients (0/80, 0%) in the fluvoxamine group clinically deteriorated, compared to 8.3% (6/72) in the placebo group (log-rank chi-square 6.8, p=0.009).

Conclusions: Outpatients treated with fluvoxamine early in the course of symptomatic COVID-19 had a lower likelihood of clinical deterioration over 15 days. Due to the small sample size and short follow-up duration, larger randomized controlled trials are needed to confirm clinical efficacy.

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