

# Potential therapeutic role of fluvoxamine in COVID-19: A systematic review

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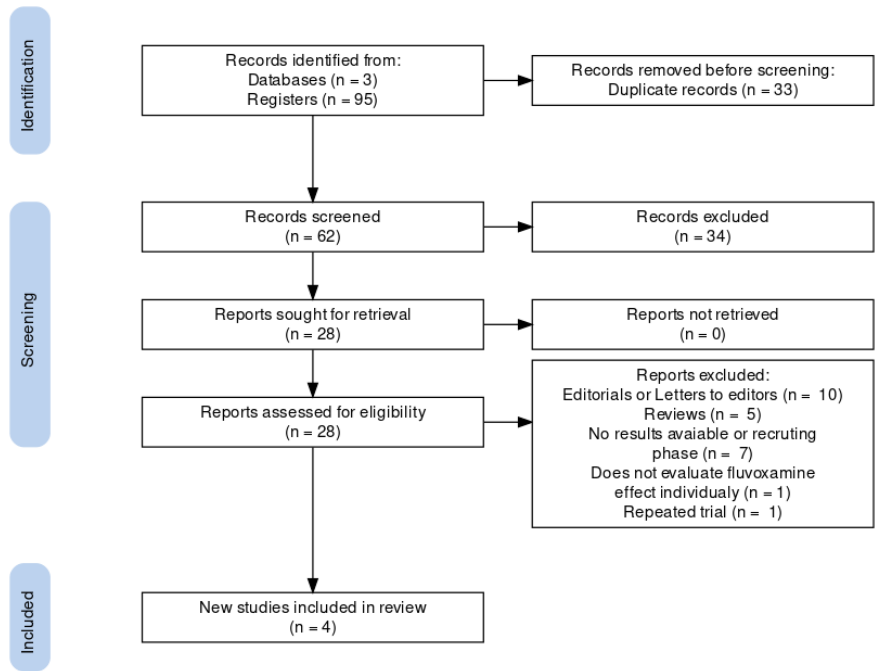
## Abstract

Fluvoxamine is a selective-serotonin reuptake inhibitor (SSRI), well-tolerated and widely available, usually used in the management of mental-health conditions. Fluvoxamine is also a sigma-1 agonist with high affinity to this receptor and this pharmacodynamical effect has been being portrayed as the main explanation in emerging evidence about the potential of using fluvoxamine in COVID-19 patients. This systematic review was conducted according to the PRISMA guidelines. The search was run in MEDLINE, Web of Science, and CENTRAL from the Cochrane databases. The study protocol was registered in PROSPERO (CRD42022302025). Our aim was to assess the present evidence for therapeutic role of fluvoxamine in COVID-19 patients, the review included studies which evaluate the effect of fluvoxamine in COVID-19 patients. The main outcomes evaluated in the review were: mortality, need for hospitalization (outpatients) and clinical deterioration. The quality control of the selected articles was made using Cochrane's Risk of Bias tool for the randomized controlled trials (RCTs) and the ROBINS-I criteria for non-randomized studies. A total of 4 studies were included in the final qualitative analysis of the review, 2 of which were RCTs, and the others were open-label prospective cohorts. 3 studies assessed outpatient population and 1 evaluated ICU population. Overall, the 4 studies included a total of 1864 participants. In conclusion, 3 studies with outpatients showed that fluvoxamine treatment can prevent clinical deterioration, hospitalisation, or proxy-hospitalisation. The only study with patients hospitalized in the ICU also demonstrated a therapeutic benefit reducing overall mortality.

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Identification of new studies via databases and registers



		Risk of bias domains					
		D1	D2	D3	D4	D5	Overall
Study	Reis et al.	+	+	+	+	+	+
	Lenze et al.	-	+	-	+	+	-

Domains:  
D1: Bias arising from the randomization process.  
D2: Bias due to deviations from intended intervention.  
D3: Bias due to missing outcome data.  
D4: Bias in measurement of the outcome.  
D5: Bias in selection of the reported result.

Judgement  
- Some concerns  
+ Low

		Risk of bias domains							
		D1	D2	D3	D4	D5	D6	D7	Overall
Study	Calusic et al.								
	Seftel and Boulware								

Domains:

D1: Bias due to confounding.

D2: Bias due to selection of participants.

D3: Bias in classification of interventions.


D4: Bias due to deviations from intended interventions.


D5: Bias due to missing data.


D6: Bias in measurement of outcomes.

D7: Bias in selection of the reported result.

Judgement

 Serious

 Moderate

 Low

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Table 2.docx available at <https://authorea.com/users/472880/articles/563379-potential-therapeutic-role-of-fluvoxamine-in-covid-19-a-systematic-review>