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IN THIS ISSUE

Fluvoxamine for COVID-19?.....p 69

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Take CME Exams

▶ Fluvoxamine for COVID-19?

A recent article in JAMA and an interview of its senior author on *60 Minutes* have heightened interest in off-label use of the oral selective serotonin reuptake inhibitor (SSRI) fluvoxamine (*Luvox*, and generics) to treat COVID-19.

DRUGS FOR COVID-19 — Many drugs have been considered for treatment of COVID-19,¹ and several monoclonal antibodies have been granted emergency use authorizations for this purpose, but only remdesivir (*Veklury*), an IV antiviral agent that inhibits RNA polymerase, has been approved by the FDA, and it is only approved for use in hospitalized patients.²

FLUVOXAMINE — Fluvoxamine is structurally unrelated to other SSRIs. In addition to its serotonin-modulating activity, it is a strong agonist of sigma-1 receptors in the endoplasmic reticulum. Sigma-1 agonism has been shown to inhibit SARS-CoV-2 replication and to modulate the inflammatory response to sepsis in animals; it could theoretically prevent development of life-threatening cytokine storm and acute respiratory distress syndrome in COVID-19.^{3,4} A short course of fluvoxamine monotherapy is unlikely to cause significant adverse effects, but the drug inhibits CYP1A2, 2C9, and 3A4 and could decrease the metabolism and increase serum concentrations of drugs that are metabolized by those isozymes.⁵

CLINICAL STUDIES — In a double-blind trial, 152 patients with mild COVID-19 were randomized to receive 15 days of treatment with fluvoxamine (target dosage 100 mg three times daily) or placebo. Clinical deterioration (shortness of breath and hypoxemia), the primary endpoint, occurred in none of 80 patients who received fluvoxamine and in 6 of 72 who received placebo (absolute difference 8.7%; 95% CI 1.8–16.4%). Adverse events occurred more frequently with placebo.⁶

A prospective cohort study was conducted during a mass outbreak of COVID-19 in 113 employees who shared living space at a horse racing track in California

during November and December of 2020. Persons with documented disease were offered fluvoxamine (50–100 mg loading dose, then 50 mg twice daily for 14 days). At 14 days, residual symptoms were present in none of the 65 patients who accepted treatment with the drug and in 29 of the 48 patients who declined treatment; of those who declined treatment with fluvoxamine, 6 were hospitalized, 2 were intubated, and one died. The patients who chose to take fluvoxamine were more likely to be symptomatic and nonwhite.⁷

A multicenter, fully remote, randomized, placebo-controlled trial of fluvoxamine for early treatment of COVID-19 using a dosage of 100 mg twice daily for 15 days is underway. Persons ≥ 30 years old in the US with a positive diagnostic test and < 7 days of mild COVID-19 symptoms can apply to participate in this internet-based trial (<https://stopcovidtrial.wustl.edu>). Study medication and self-monitoring equipment are being shipped to patients' homes. The study is expected to conclude in September 2021.⁸

DOSAGE AND COST — No optimal dosage of fluvoxamine has been established for treatment of COVID-19. The cost of 30 generic 100-mg fluvoxamine tablets is about \$18.⁹

CONCLUSION — Fluvoxamine, a relatively safe oral drug that is available generically, has shown some promise in preventing clinical deterioration in patients with COVID-19, but conclusive data supporting its use are lacking. A large trial is underway. ■

1. Treatments considered for COVID-19. *Med Lett Drugs Ther* 2021 March 15 (epub). Available at: https://secure.medicalletter.org/downloads/1595e_table.pdf.
2. Remdesivir (Veklury) for COVID-19. *Med Lett Drugs Ther* 2020; 62:186.
3. K Hashimoto. Repurposing of CNS drugs to treat COVID-19 infection: targeting the sigma-1 receptor. *Eur Arch Psychiatry Clin Neurosci* 2021; 271:249.
4. DA Rosen et al. Modulation of the sigma-1 receptor-IRE1 pathway is beneficial in preclinical models of inflammation and sepsis. *Sci Transl Med* 2019; 11:eaau5266.
5. Drug interactions from The Medical Letter. Available at: www.medicalletter.org/subDIO.
6. EJ Lenze et al. Fluvoxamine vs placebo and clinical deterioration in outpatients with symptomatic COVID-19: a randomized clinical trial. *JAMA* 2020; 324:2292.

7. D Seftel and DR Boulware. Prospective cohort of fluvoxamine for early treatment of coronavirus disease 19. *Open Forum Infect Dis* 2021 February 1 (epub).
8. NIH. Fluvoxamine for early treatment of Covid-19 (Stop Covid 2). Available at: <https://clinicaltrials.gov/ct2/show/NCT04668950>. Accessed April 15, 2021.
9. Approximate WAC. WAC = wholesaler acquisition cost or manufacturer's published price to wholesalers; WAC represents a published catalogue or list price and may not represent an actual transactional price. Source: AnalySource® Monthly. April 5, 2021. Reprinted with permission by First Databank, Inc. All rights reserved. ©2021. www.fdbhealth.com/drug-pricing-policy.

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