

# FLUVOXAMINE & FLUOXETINE IN COVID-19

It's not just for depression anymore

## MECHANISMS OF ACTION

- Immune-modulating actions include interleukin 6 and TNF which reduce inflammation and cytokine storm
- Sigma-1 receptor-IRE1 pathway is modulated, reducing inflammation
- Direct antiviral effects in-vitro via infected Vero E cells and also in lung tissue
- Platelet inhibition reducing clot formation
- Inhibitory effects on the acid sphingomyelinase/ceramide system, which reduces likelihood of intubation and death

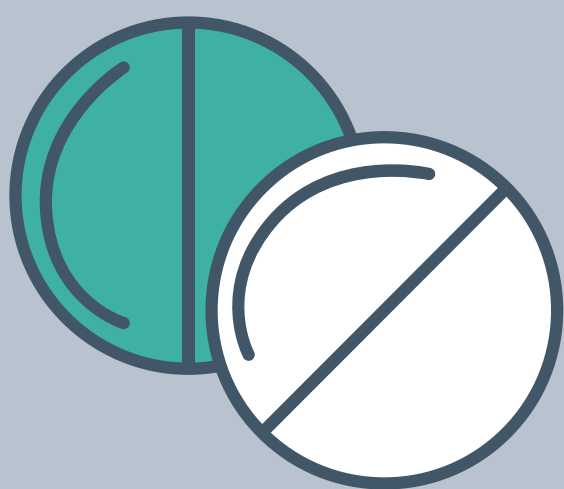


## EFFECTIVENESS IN COVID-19

- Early treatment: taken daily for depression and used for early treatment resulted in less inflammation with COVID-19
- A cohort study in JAMA OPEN Network showed that the risk ratio of mortality was reduced 8% among patients prescribed any SSRI and 28% among those prescribed fluoxetine

## WORKS WITH MELATONIN!

- Blood concentrations of melatonin are increased when taken with SSRIs enhancing activity
- Melatonin is cellular protective and it repolarizes dysfunctional macrophages
- Decrease in incidence of death with both melatonin and fluvoxamine



## DOSE:

Fluvoxamine: 50 mg 2x daily for 10 days

Fluoxetine: 30 mg daily for 10 days

- fluoxetine is better tolerated than fluvoxamine
- can trigger anxiety or suicidal thoughts in some individuals
- not recommended for children and teenagers
- Avoid if patient is already on an SSRI