
Statement from Investigators On a Prevention Strategy for COVID-19-CSS:
“We are aware of the fear that COVID-19 has unleashed on the world, and we join scientists around the world in trying to rapidly find new ways to mitigate the harm it is causing. The purpose of our article is to make the biomedical community aware of the potential of this approach and to stimulate additional basic and clinical research. Although, we are excited about this idea, we stress that a clinical trial is necessary to know if this intervention will help or harm COVID patients, and that is where we are focusing all of our attention.”

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**What is the complication the prevention strategy targets?**
A severe acute inflammatory process often referred to as cytokine storm syndrome (CSS), which disproportionately affects older adults with underlying health conditions, and is associated with severity and death in COVID-19.

**What is the COVID-19 preventive strategy discussed in the paper?**
In a mouse model of hyperinflammation similar to CSS, the researchers found that the FDA-approved alpha blocker drug prazosin prevented the most serious complications. It is important to note that prazosin has not been tested in mouse models of SARS-CoV-2 which is the cause of Coronavirus disease 2019 (COVID-19) in humans.

**What does the drug do?**
The researchers believe prazosin (Minipress) targets COVID-19-associated hyperinflammation and, when given early after viral exposure, has the potential to reduce deaths. In mouse models, the drug blocked catecholamines (hormones made by the adrenal glands when the body is under stress), reduced cytokine levels (which regulate inflammation), and increased survival after exposure to agents that trigger cytokine storm responses. Preliminary results from a retrospective clinical study revealed that for hospitalized patients diagnosed with pneumonia or acute respiratory distress, the likelihood of requiring mechanical ventilation and dying was significantly lower if patients were taking prazosin or related drugs prior to disease onset.

**What is the drug currently used for?**
The medication is commonly used to treat high blood pressure, prostate gland enlargement, and a variety of other conditions. It costs less than $25 per month in the U.S., is taken by mouth, and has been safely used by millions of individuals worldwide.

**When will the drug be available for use in COVID-19-CSS prevention?**
It must be studied in clinical trials to see if it works safely and effectively in humans to prevent COVID-19-CSS and severe lung inflammation. A clinical trial has recently begun, and the investigators hope that this study will stimulate the initiation of other clinical trials.

**If the drug is FDA approved and is safely taken by millions of Americans, why can’t it be given immediately to prevent COVID-19-CSS?**
The drug was studied in clinical trials for all of the diseases it is currently used to treat before it was given to those patients. The FDA recently granted approval for the drug to be studied in COVID-19. Many of these patients are older and have underlying health conditions. All drugs can have unanticipated side effects when used in new situations. It is therefore critical to evaluate the effectiveness and side effects of this drug in controlled clinical trials before it can be safely recommended for public use.

**What about a vaccine for prevention?**
A vaccine remains the best long-term hope to prevent deaths from COVID-19. As we await a vaccine, this is another strategy to potentially help individuals infected by the virus.