# One Page Summary of the Clinical Trials Evidence for Ivermectin in COVID-19

Ivermectin, an anti-parasitic medicine whose discovery won the Nobel Prize in 2015, has proven, highly potent, anti-viral and anti-inflammatory properties in laboratory studies. In the past 4 months, numerous, controlled clinical trials from multiple centers and countries worldwide are reporting consistent, large improvements in COVID-19 patient outcomes when treated with ivermectin. Our comprehensive scientific review of these referenced trials can be found on the Open Science Foundation pre-print server here: https://osf.io/wx3zn/.

## **Properties of Ivermectin**

- 1) Ivermectin inhibits the replication of many viruses, including SARS-CoV-2, influenza, and others;
- 2) Ivermectin has potent anti-inflammatory properties with multiple mechanisms of inhibition;
- 3) Ivermectin diminishes viral load and protects against organ damage in animal models;
- 4) Ivermectin prevents transmission of COVID-19 when taken either pre- or post-exposure;
- 5) Ivermectin hastens recovery and decreases hospitalization and mortality in patients with COVID-19;
- 6) Ivermectin leads to far lower case-fatality rates in regions with widespread use.

### **Evidence Base Supporting the Efficacy of Ivermectin in COVID-19**

as of January 11, 2021

(RCT's = randomized controlled trials, OCT's = observational controlled trials). Every clinical trial shows a benefit, with RCT's and OCT's reporting the same direction and magnitude; nearly all are statistically significant.

### Controlled trials studying the prevention of COVID-19 (8 trials completed)

- 3 RCT's with large statistically significant reductions in transmission rates, a total of 774 patients
- 5 OCT's with large statistically significant reductions in transmission rates, a total of 2,052 patients

#### Controlled trials in the treatment of both early and hospitalized COVID-19 patients (19 trials completed)

- 5 RCT's with large, significant reductions in time to recovery or hospital length of stay, a total of 774 patients
- 1 RCT with a large, statistically significant reduction in rate of deterioration/hospitalization, total of 363 patients
- 2 RCT's with significant decreases in viral load, days of anosmia, cough, or time to recovery, a total of 85 patients
- 3 RCT's with large, significant reductions in mortality, a total of 695 patients
- 3 OCT's with large, statistically significant reductions in mortality, a total of 1,688 patients

## Number of Studies and Patients Among the Existing Clinical Trials of Ivermectin in COVID-19

- 27 controlled trials, including a total of 6,612 patients have been completed using well-matched control groups
- 16 trials, including over 2,500 patients, are prospective, randomized, controlled studies
- 11 of the 27 trials have been published in peer-reviewed journals, 3,900 patients, remainder are in pre-print

## Front Line COVID-19 Critical Care Alliance – Recommendation on Ivermectin in COVID-19

Even restricting analysis to just the 16 randomized controlled trials (totaling over 2,500 patients), the majority report a statistically significant reduction in transmission or disease progression or mortality. Further, a meta-analysis recently performed by an independent research consortium calculated the chances that ivermectin is ineffective in COVID-19 to be 1 in 67 million.<sup>1</sup>

The FLCCC Alliance, based on the totality of the existing evidence, supports an A-I recommendation (NIH rating scheme; strong level, high quality evidence) for the use of ivermectin in both the prophylaxis and treatment of all phases of COVID-19.

Furthermore, we encourage all regulatory agencies to review our manuscript detailing these studies above as well as the multiple population-wide "natural experiments" that occurred in numerous cities and regions after the initiation of ivermectin distribution programs.<sup>2</sup> The widespread use of ivermectin resulted in a significant reduction in cases and mortality rates that approached pre-pandemic levels in these areas. As evidenced by what occurred in these regions, ivermectin is clearly an essential and vital treatment component in achieving control of the pandemic.

For more information about the FLCCC Alliance, the *I-MASK+ Prophylaxis & Early Outpatient Treatment Protocol for COVID-19* and the *MATH+ Hospital Treatment Protocol for COVID-19*, please visit



<sup>&</sup>lt;sup>1</sup> ivmmeta.com

<sup>&</sup>lt;sup>2</sup> Kory P, Meduri GU, Iglesias J, Varon J et al. Review of the Emerging Evidence Demonstrating the Efficacy of Ivermectin in the Prophylaxis and Treatment of COVID-19. *Open Science Foundation*. https://osf.io/wx3zn/