# PeaceHealth Patient FAQ: Ivermectin

#### Q: What is Ivermectin?

A: Ivermectin is an oral medicine used to treat parasitic infections. It changes the way muscle cells in parasites work, causing paralysis and death of the parasite.

## Q: What evidence is available about using ivermectin for treating COVID-19?

A: Studies on using ivermectin to treat COVID-19 have been mixed. Some studies have shown benefit. Other studies have shown no benefit. Many of the studies, particularly those showing benefit, are of poor quality. Some of the quality concerns are:

- There is no comparison group. This means it is impossible to compare against the potential benefit from not using ivermectin.
- There is no information on disease severity. This means it cannot be determined if, or whether, ivermectin is safe or effective on mild, moderate, or severe instances of COVID-19.
- There is no explanation for people excluded from the results. This means it cannot be determined whether studies selectively included results favoring ivermectin.
- There was a small group size. This means it cannot be determined whether results apply to large numbers of people, or occurred at random.
- The study authors' claims were not supported by the results.
- The studies were only conducted in a lab, with no patients. This means that the studies used only laboratory or animal experiments, and human subjects were not included.

One large study showing benefit was recently retracted<sup>1</sup> because reviewers found that the results had been falsified. Based on results of earlier small studies, larger and higher-quality studies are ongoing. Recent results<sup>2</sup> from larger trials with more complete information show no effect of ivermectin on COVID-19.

<sup>&</sup>lt;sup>1</sup> Reardon S. (2021, August 1). *Flawed ivermectin preprint highlights challenges of COVID drug studies.* Nature. https://www.nature.com/articles/d41586-021-02081-w

<sup>&</sup>lt;sup>2</sup> López-Medina E, López P, Hurtado IC. *Effect of ivermectin on time to resolution of symptoms among adults with mild COVID-19.* JAMA 2021;325(14):1426-1435. Doi: 10.1001/jama.2021.3071

#### Q: What is required for a treatment to be recommended for COVID-19?

A: For treatments to be recommended and used at PeaceHealth, they must be clinically proven to be safe and effective. Currently, treatments supported by large, high-quality studies are applied at different stages of COVID-19, helping reduce disease severity, shorten hospital stay, or reduce risk of death from COVID-19. The evidence leading to these outcomes includes clear guidance about what doses to use, what stage of disease a specific treatment works in, what the side effects are, how a treatment interacts with other approaches, which patients should not get the treatment, when to change the dose, what labs to monitor, and other factors.

### Q: Is Ivermectin currently used to treat COVID-19?

A: Ivermectin is not used to treat COVID-19 for several reasons:

- It is not clinically proven to be effective
- It is not recommended by the manufacturer<sup>3</sup> for this purpose
- Staging, dosing, and monitoring recommendations are not available, as it has not been demonstrated to be effective at any stage of disease and at any dose
- High doses are known to cause serious side effects, often requiring hospitalization for toxicity<sup>4</sup>
- It is unknown how it interacts with proven treatments
- Long term side effects with high doses/prolonged therapy are unknown

Should the evidence regarding ivermectin change, PeaceHealth will update its treatment recommendations.

<sup>&</sup>lt;sup>3</sup> Merck company statement. (2021, February 4). *Merck Statement on Ivermectin Use During the COVID-19 Pandemic.* https://www.merck.com/news/merck-statement-on-ivermectin-use-during-the-covid-19-pandemic/

<sup>&</sup>lt;sup>4</sup> CDC Health Alert Network. (2021, August 26). Rapid increase in ivermectin prescriptions and reports of severe illness associated with use of products containing ivermectin to prevent or treat COVID-19. CDC. <a href="https://emergency.cdc.gov/han/2021/han00449.asp">https://emergency.cdc.gov/han/2021/han00449.asp</a>