

Zinc Is Key to HCQ Protocol

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✓ Fact Checked

STORY AT-A-GLANCE

- Physicians are reporting positive results using a combination of hydroxychloroquine, azithromycin and zinc
- Some studies with negative results have had problems, including one in which suspect data caused the study to be retracted and another in which people were knowingly given lethal doses of the medication
- Hydroxychloroquine acts as a zinc ionophore, helping zinc pass the plasma membrane into the cell where it stops the replication of the virus
- Quercetin and epigallocatechin gallate (EGCG) work similarly to enhance the cellular uptake of zinc

Although more people talk about zinc during cold and flu season, and it's one of the important supplements you can use to thwart a COVID-19 infection, it's also an essential mineral found throughout your body. Zinc is the second-most abundant trace mineral found in the body, while iron is the first.¹

Zinc is a cofactor in 3,000 proteins.² Although it's crucial to many biological processes and plays a vital role in the structure of nearly every cell, the body does not store the mineral.³ Instead, you must consume it every day to meet your body's requirements.

Zinc is important to your immune health as it not only helps halt the replication of viruses inside the cells,⁴ but also functions as a signaling molecule for the body's T-cells, which are white cells tasked with destroying infected cells.⁵ Zinc protects the

hippocampus from inflammation that is triggered by emotional stress, and thus is considered an important factor in the treatment of depression.⁶

Zinc also plays a role in releasing thyroid hormone; low levels are associated with thinning hair.⁷ The mineral is important for wound healing and your sense of **taste and smell**.⁸ As with many other vitamins and minerals, the average daily recommended amount is based on avoiding a deficiency rather than maintaining optimal amounts to support good health.⁹

However, as Chris Masterjohn, Ph.D., points out, it is possible to get too much zinc, which can actually depress your immune system and negatively affect your health.¹⁰ Despite the numerous reasons you'll want to ensure your levels of zinc are adequate, the trace mineral has become important in the fight against COVID-19.

Zinc Raises the Effectiveness of Hydroxychloroquine

A team of doctors from New York University who were using hydroxychloroquine (HCQ) and azithromycin in patients with COVID-19 began adding zinc sulfate. To determine the effectiveness to the protocol, they completed a retrospective observational study comparing outcomes between the two groups.¹¹ The physicians declared no competing interests, and they received no funding for the study.

Data were collected on patients who were admitted to the hospital in the period of March 2, 2020, through April 5, 2020. People who were given experimental drugs were excluded. The doctors found that those who received zinc sulfate were discharged home more frequently and were less likely to need a ventilator.

Overall, members of this group had lower risk of mortality due to the virus and lower chances of needing hospice or the ICU. They concluded, "This study provides the first in vivo evidence that zinc sulfate in combination with hydroxychloroquine may play a role in therapeutic management for COVID-19."

The results of these observations support the findings of other physicians throughout the world. For example, in one international poll of more than 6,200 doctors across 30

countries, 37% rated hydroxychloroquine as the “most effective therapy” for COVID-19 from a list of 15 options.¹²

The poll was done by Sermo, self-described as the world's largest health care data collection company and social platform for physicians. The drug combination was commonly used in Spain by 72% of doctors who chose to participate. Additionally, 75% of the respondents from Spain indicated that it was the most effective therapy.

Inside the U.S., the drug was more commonly used for high-risk, diagnosed patients, but in other countries it was prescribed for people exhibiting mild to severe symptoms.

HCQ Protocols Outside the US Effective and Successful

French prize-winning microbiologist and infectious disease expert Didier Raoult is director of a research unit at Institut Hospitalo-Universitaire in France. As soon as someone is diagnosed with COVID-19, he uses the combination of **hydroxychloroquine and azithromycin** to treat them. Raoult reports that this combination has led to the recovery and nondetection of SARS-CoV-2 in 91.7% of 1,061 patients within 10 days.¹³

One of the side effects of hydroxychloroquine and azithromycin is the risk of cardiac toxicity. However, in his patients there was no toxicity when a dose of 200 mg was given three times a day for 10 days, with 500 mg of azithromycin on Day 1 followed by 250 mg daily for the next four days.

While some scientists working with the Bill & Melinda Gates Foundation¹⁴ are not convinced of the efficacy of a drug — which has been approved and used in the U.S. for 65 years^{15,16} — the Swiss Policy Research group reports that U.S. doctors who are using the combination of hydroxychloroquine, azithromycin and zinc have:¹⁷

“... an 84% decrease in hospitalization rates, a 50% decrease in mortality rates among already hospitalized patients (if treated early), and an improvement in the condition of patients within 8 to 12 hours. Italian doctors reported a decrease in deaths of 66%.

US physicians also reported a 45% reduction in mortality of hospitalized patients by adding zinc to HCQ/AZ. Another US study reported a rapid resolution of Covid symptoms, such as shortness of breath, based on early outpatient treatment with high-dose zinc."

Dangerous Narrative May Have Led to High Rate of Death

In a study published May 22, 2020, in The Lancet, researchers declared that HCQ used alone or with a macrolide was associated with a reduction in survival and an increase in ventricular arrhythmias. Soon after, the World Health Organization stopped their use of the drug in COVID-19 protocols and the leaders of several drug trials announced that the investigations were being terminated.¹⁸

The results of the study published in The Lancet were so alarming that it initiated a closer look by other scientists, 200 of whom published an open letter concerning the integrity of the data collection.¹⁹ They identified 10 points in the research that were suspect, including:

- The origin of the data sources
- No ethics review of the study
- The data from Australia were not compatible with government sources
- The origins of 66% of the data were from North America using doses of HCQ that were, on average, 100 times higher than FDA recommendations

After it was revealed that the database used in the study was not available to independent peer reviewers, the article was retracted.²⁰ However, by this time, others had joined the outcry against the low-cost medication with a known positive track record.

As more physicians spoke about the evidence from their own practice using hydroxychloroquine in combination with zinc and azithromycin, state medical licensing boards and congressional representatives began issuing threats.²¹

Dr. Vladimir Zelenko is another physician who has been vocal about this, and who published²² the positive effects he's been getting using a protocol with hydroxychloroquine, azithromycin and **zinc sulfate**.

Del Bigtree from The Highwire quotes Raoult from a previous interview as saying failure to prescribe hydroxychloroquine to a COVID-19 patient "should be grounds for malpractice." During an interview with Bigtree July 3, 2020, Zelenko said,²³ "People are not dying from COVID-19. They are dying from politics. It's called death by politics."

In answer to the question of how history will look at the story of the pandemic in relationship to HCQ, Zelenko answered:

"In my personal opinion, anyone who got in the way of access to care, who got in the way of access to patients having medication, committed crimes against humanity and are guilty of mass murder."

During the interview Bigtree pointed out that the large doses of hydroxychloroquine being used in the Oxford Recovery Trial and the WHO Solidarity Trials were called "potentially fatal doses" by Dr. Meryl Nass.²⁴ Nass added:

"Excessive, dangerous HCQ dosing continues to be used in WHO's Solidarity trials. These trials are not, in fact, testing the benefits of HCQ on Covid-19, but rather are testing whether patients survive toxic, non-therapeutic doses.

The high dose regimen being used in these trials has no medical justification. The trial design, with its limited collection of safety data, makes it difficult or impossible to identify toxic drug effects, compared to a standard drug trial. This is completely unethical. Excessive dosing makes it impossible to assess therapeutic benefit, if any, of HCQ."

When asked if the 2400 mg of hydroxychloroquine used in the Recovery trial was lethal, Zelenko responded, "Not if you're treating a very fat elephant."²⁵

Quercetin and EGCG Are Effective Zinc Ionophores

Zelenko also shared that if people cannot get HCQ to move zinc into the cells, then quercetin is a second option.²⁶ He is using it as “Plan B” for patients who have a contraindication for hydroxychloroquine or otherwise cannot take it.

In the Zelenko protocol, hydroxychloroquine functions as a zinc ionophore, moving zinc into the cells where it halts the replication of the virus. This allows him to prescribe lower doses since zinc is the key component of the treatment.

A study published in 2014 evaluated the efficacy of **quercetin** and epigallocatechin gallate (EGCG) as zinc ionophores.²⁷ To prove their hypothesis these flavonoids were transporting zinc cations into the plasma membrane, researchers designed a lab study with hepatic carcinoma HEPA 1-6 mouse cells.

The goal was to confirm whether the polyphenols move zinc across the cell membrane using quercetin, EGCG or clioquinol. EGCG is a polyphenol commonly found in tea²⁸ and clioquinol is a quinoline with antibacterial and antifungal properties used to treat skin infections.²⁹

The results showed a rapid increase in detectable intracellular zinc in the presence of quercetin, EGCG or clioquinol. The researchers concluded that the natural flavonoids may be used to modulate zinc homeostasis and regulate biological pathways.

Using Zinc and Quercetin Before or Early in Illness

As Zelenko points out, the combination of zinc and a zinc ionophore can be used preventively to reduce the risk of acquiring a COVID-19 infection. Although zinc deficiency is common in the developing world, estimates are that 12% of the U.S. population and as many as 40% of the elderly are at risk for **zinc deficiency**.³⁰ Unfortunately, zinc levels are not always tested. You may be deficient if you have these signs:³¹

- Lack of appetite
- **Depression**

- Impaired sense of taste or smell
- Frequent colds, flu or infections
- Acne or skin rashes

In much the same way Zelenko uses hydroxychloroquine and zinc as a preventative against COVID-19, you have access to quercetin and zinc to perform the same function. However, as Masterjohn correctly points out, too much zinc can negatively affect your immune system as it can offset your zinc and copper balance.³²

This lowers **superoxide dismutase** activity, which is an important antioxidant in immune function. If you are taking zinc prophylactically for COVID-19, he suggests restricting your daily intake to 150 mg per day or less except for short-term use when you're sick.