



Why 1600 Penn Is Gaga for Zinc

Research published today found that including zinc in Covid patients' treatment reduced the need for ventilation, transfer to ICU and death.

May 23, 2020 By [Mike Barr](#)

Little noticed in the hubbub over Potus' out-of-the-blue hydroxychloroquine [soliloquy](#) last week was the sort of ancillary asterisk he added upon follow up from a reporter. "I'm taking hydroxychloroquine. Been taking it for a couple of weeks now. And zinc. Zinc, and the hydroxy." Wait a minute, zinc?

Zinc, in lozenge form particularly, has been touted for years to, depending on your source, help prevent or shorten the duration of a cold, among other things. There exists a [vast](#) literature on its [importance](#) to the human body, from everything immunological and dermatological to neurocognitive and hormonal.

But curiously here, the zinc doesn't appear to be playing a supporting role; rather, it's the "hydroxy" that's the potentiator. Here zinc is being cast in what might possibly be its first lead-- the controversial anti-malarial said merely to "aid uptake" of the underestimated metal.

Apologies for the movie making imagery. I had been binge watching [Hollywood](#) over recent days, and its influence seems to have crept in. So nice to see Patti LuPone working again though. And to imagine Rock Hudson as a whiny [b@&*#%](#). I still can't stop myself sometimes from wondering how the stigma of being gay not to mention + might have been magically lifted if he had found the courage Ryan Murphy's phantasmagorical history remake gave him. Oh wait, we were on zinc.

In their [research](#) report (pre-)published today, a NYU Langone medical team share clinical outcomes on nearly 1,000 Covid patients from 4 of their hospitals admitted March 2 to April 5. About half were treated with HCQ-azithromycin; to rx regimens for the other half zinc sulfate* was added. And according to their preliminary analysis, the addition of zinc reduced need for ventilation, transfer to ICU and death by what appears to be 50%-- but we might have to look at comparative Odds Ratios once the detailed tables are available.

The effect did not apply, however, to patients who were already critically ill upon hospitalization.

Zinc may have a role in preventing Sars-CoV-2 infection

from progressing to severe disease. Once the aberrant production of systemic immune mediators is initiated, however, the addition of zinc is unlikely to be effective.

The proposed mechanism is fascinating, and suggests that hydroxychloroquine may act as a "zinc [ionophore](#)," aiding its absorption into the cell.

Zinc had earlier been [shown](#) to reduce Sars-CoV [RNA polymerase activity](#), and it is possible that with this extra help the antiviral effect of zinc is rendered all the more effective.

The two best researched and most often cited natural substances that act as zinc ionophores are epigallocatechin galla (EG CG) and quercetin: two of the key ingredients, along with zinc (and NAC), in Metagenics' recently released Immune Active. I imagine the [Metagenics](#) science team were aware of this research as they developed it. And if they weren't, it's even more impressive. There are likely similar formulations from [other](#) professional supplement companies too.

The authors of this recent paper propose a potential role for zinc + zinc ionophore as Covid treatment, as opposed to prevention, but advocate for a clinical trial to evaluate it as such.

*The NYU Langone study used zinc sulphate, possibly because it is easier to source and less costly than zinc glycinate, and at a relatively high dose: 50 mg twice daily-- but used it for only 5 days. Perhaps the only advantage of the [glycinated](#) form is its (modestly) [increased bio-availability](#), notably in the presence of dietary phytates.

Refs:

Hydroxychloroquine and azithromycin plus zinc vs hydroxychloroquine and azithromycin alone: outcomes in hospitalized COVID-19 patients

<https://www.medrxiv.org/content/10.1101/2020.05.02.20080036v1>

Chloroquine Is a Zinc Ionophore

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0109180>

Zinc Ionophore Activity of Quercetin and Epigallocatechin-gallate: From Hepa 1-6 Cells to a Liposome Model

<https://pubs.acs.org/doi/10.1021/jf5014633>

Zn²⁺ Inhibits Coronavirus and Arterivirus RNA Polymerase Activity *In Vitro* and Zinc Ionophores Block the Replication of These Viruses in Cell Culture

<https://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1001176>

Neurovirulent murine coronavirus jhm.sd uses cellular zinc metalloproteases for virus entry and cell-cell fusion. J Virol. 2017;91(8).

<https://jvi.asm.org/content/91/8/e01564-16>

Papain-Like Protease 2 (PLP2) from Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV): Expression, Purification, Characterization, and Inhibition

<https://pubs.acs.org/doi/pdf/10.1021/bi0504761>

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