

April 8, 2020

*Disclaimer: We are receiving frequent COVID-related questions about drug concerns and potential interactions. This information is as April 8, 2020. We will do our best to keep you up to date with this ever evolving situation. This is the most update information at the time of publication.*

## ZINC

Zinc is an essential mineral that plays a major role in immune function, DNA & protein synthesis, as well as cell division <sup>1</sup>. Studies have been done regarding how zinc affects the immune system response to the common cold. Zinc is needed for proper immune response and a deficiency can depress the immune system, leaving one susceptible to infections. Several studies of zinc-containing lozenges and syrups have shown that if taken at or within 24 hours of cold symptom onset, the severity and duration of illness were reduced <sup>2</sup>. It has also been shown that zinc supports antiviral activity by blocking RNA polymerase <sup>3</sup>. Because many common colds are caused by coronaviruses <sup>2</sup>, it is assumed that zinc will have a similar effect on COVID-19. **However, there is no scientific evidence to support the use of zinc for the prevention or treatment of COVID-19.**

1. National Institutes of Health Office of Dietary Supplements. (2020, March 6). Zinc Fact Sheet for Health Professionals. <https://ods.od.nih.gov/factsheets/Zinc-HealthProfessional/>
2. Neff, T. (2020, March 25). Coronavirus: To zinc or not to zinc?. UC Health Today. <https://www.uchealth.org/today/zinc-could-help-diminish-extent-of-covid-19/>
3. Brown, N. (2020, March 20). Can Supplements Help Combat COVID-19?. Psychology Today. <https://www.psychologytoday.com/us/blog/experience-engineering/202003/can-supplements-help-combat-covid-19>

## RAAS INHIBITION and COVID-19

The use of RAAS inhibitors and COVID-19 has been controversial. Hypertension has consistently been associated with a poor prognosis with COVID-19 infection <sup>1</sup>; however, most of these studies have not adjusted for age and other co-morbidities <sup>2</sup>. Advancing age has been the strongest predictor for COVID-19 related deaths <sup>3</sup>. RAAS inhibitors have established benefits in protecting kidney and myocardium and abrupt withdrawal of use may lead to clinical instability and adverse health outcomes <sup>3-4</sup>. At this time, expert opinion recommends that RAAS inhibitors should be continued in patients in stable condition, even if at risk for, being evaluated for, or with existing COVID-19 infection <sup>4</sup>.

1. Guan W, Ni Z, Hu Y, et al. Clinical characteristics of coronavirus disease 2019 in China. N Engl J Med. <https://www.nejm.org/doi/full/10.1056/NEJMoa2002032>
2. Sanchis-Gomar F, Lavie CJ, Perez-Quilis C, Henry BM, Lippi G. Angiotensin-converting enzyme<sup>2</sup> and anti-hypertensives (angiotensin receptor blockers and angiotensin converting enzyme inhibitors) in coronavirus disease 2019 (COVID-19) [published online ahead of print March 30, 2020]. Mayo Clin Proc. [https://els-jbs-prod-cdn.jbs.elsevierhealth.com/pb/assets/raw/Health%20Advance/journals/jmcp/jmcp\\_ft95\\_3\\_5-1585588116123.pdf](https://els-jbs-prod-cdn.jbs.elsevierhealth.com/pb/assets/raw/Health%20Advance/journals/jmcp/jmcp_ft95_3_5-1585588116123.pdf)
3. Wu JT, Leung K, Bushman M, et al. Estimating clinical severity of COVID-19 from the transmission dynamics in Wuhan, China. Nat Med 2020 <https://www.nature.com/articles/s41591-020-0822-7>
4. Vaduganathan, M, Vardeny, O, et al. Renin-Angiotensin-Aldosterone System Inhibitors in Patients with COVID-19. N Engl J Med. <https://www.nejm.org/doi/10.1056/NEJMsr2005760>

## POTENTIAL DRUG SHORTAGES

The Health Plan of Southwestern Health Resources, Care N' Care, has been monitoring potential drug shortages related to COVID-19 in outpatient settings. Care N' Care is able to gather data from up-to-the-minute pharmacy claims, as well as information coming into the call centers from its members and pharmacies. The drug shortages are confirmed through the American Society of Health-System Pharmacists (ASHP) website. Please note, these are for outpatient drugs obtained in a retail setting only. The notable findings as of 4/8/2020 are listed below:

- **Flovent HFA and Flovent Diskus Inhalation Powder**- ASHP has listed these products as being on wholesaler allocation. This is an attempt by the manufacturer, GlaxoSmithKline, to prevent a shortage of these inhalers by ensuring equitable distribution of available product.
- **Albuterol Sulfate Metered Dose Inhalers** - no change. See Update 4/3/2020
- **Hydroxychloroquine/Chloroquine** - No change. See Update 4/3/2020
- **Hydrocortisone** - No change. See Update 4/3/2020

For additional information and updates on drug shortages please visit the American Society of Health-System Pharmacists website or the FDA website.

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