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LETTERS

Vitamin C and zinc lozenges for COVID-19?

To the Editor:

We share Marwitz¹ concerns regarding widespread misinformation about coronavirus disease 2019 (COVID-19) treatments. However, we do not agree with the statement that "Past examples of vitamin C and zinc, marketed for common cold symptoms, make extensive claims about treating and curing common colds, but the data do not fully support safety and efficacy of these agents."^{2–4} Ironically, these agents are being promoted as unsubstantiated treatments or preventives for COVID-19 today.^{2"}

In our Cochrane review, we found that regular vitamin C supplementation of at least 0.2 g/d shortened the duration of viral respiratory tract infections in adults by 7.7% ($P < 0.001$) and in children by 14.2% ($P < 0.001$).⁴ Our review supports the safety and efficacy of vitamin C.⁴ We did not demonstrate an effect when vitamin C was administered as a treatment, but low doses, short treatment, and late treatment may explain negative findings.⁴ Vitamin C may also have an effect on COVID-19,⁵ and a recent randomized trial observed that vitamin C increased the recovery rate of outpatients infected with severe acute respiratory syndrome coronavirus 2 by 70%.⁶

Marwitz¹ refers to a zinc review³; however, the review is flawed.⁷ There is strong evidence that appropriately composed zinc lozenges can shorten the duration of respiratory virus infections.^{8–11} Unfortunately, many of the zinc lozenges on the U.S. market contain either doses of zinc which are too low or substances that bind zinc ions so tightly that they are ineffective.¹¹

There is much misinformation about vitamin C and zinc in popular forums and also, unfortunately, in scientific forums^{4,6,7,12–15}; however, the positive findings from randomized trials should not be ignored.

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Re: Vitamin C and zinc lozenges for COVID-19?

To the Editor:

I appreciate the comments brought forward by Dr. Hemilä and Ms. Chalker regarding the efficacy of vitamin C and zinc

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for use in respiratory tract infections. These data are important to examine as their body of evidence continues to evolve.

However, the intent of my commentary was to highlight the ways medication information can be improperly marketed and touted and the roles that pharmacists have in educating patients about these claims.¹ Scientists and researchers are doing important work to study the safety and efficacy of medications for coronavirus disease 2019, among other illnesses. As this information is available in the peer-reviewed literature and covered by news sources, it may be used by others to promote unsubstantiated health claims. One study by Avery et al.² examined the utilization of structure–function claims made by dietary supplements in U.S. magazines and found that many of those claims were not well supported by clinical literature.

When medication information is misconstrued online and by other means, patients may take that information, which is very accessible to them, and use it in ways that impact their health. Pharmacy education prepares pharmacist graduates to “follow an evidence-based disease management protocol” and “maximize the appropriate use of medications in a population.”³ As pharmacists are one of the most accessible health

professionals, they can intervene when medication misinformation leads to inappropriate medication utilization.

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