



Mixed evidence for zinc supplements preventing otitis media in young children

Clinical question

How effective are zinc supplements in preventing otitis media in children living in low and middle-income countries?

Bottom line

Evidence on whether zinc supplementation can reduce the incidence of otitis media in healthy children under the age of five years living in low and middle-income countries is mixed. Three of the 5 trials assessing this outcome demonstrated no significant effect, with point estimates close to no effect; another trial suggested a possible benefit of zinc, but the findings were difficult to interpret, and another trial appeared to demonstrate a significant benefit. The trial demonstrating a benefit of zinc included only children aged 60 days to 12 months. There is some evidence zinc supplements may reduce episodes of otitis media in infants being treated for severe malnutrition. However, this conclusion is based only on 1 small trial, so must be viewed with caution.

Caveat

The main weakness of the data is most trials, when presenting data, did not differentiate between acute otitis media and chronic suppurative otitis media, which may have more severe consequences, including permanent deafness. Zinc supplements did not seem to cause any serious adverse events, but a small minority of children were reported to have vomited shortly after ingestion of the supplements.

Context

Otitis media affects people of all ages, but is particularly common in young children. Around 164 million people worldwide have long-term hearing loss caused by this condition, 90% of them in low-income countries. Zinc supplements have been shown to prevent pneumonia in disadvantaged children, so it was thought they may also prevent otitis media.

Cochrane Systematic Review

Abba K et al. Zinc supplements for preventing otitis media. Cochrane Reviews 2010, Issue 2. Article No. CD006639. DOI: 10.1002/14651858.CD006639.pub2.

This review contains 12 studies involving 6820 participants.

PEARLS No. 256, May 2010, written by Brian R McAvoy

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