

P.E.A.R.L.S. Practical Evidence About Real Life Situations



Vitamin C supplementation may have preventive effects in populations with a high incidence of pneumonia, and may have therapeutic effects in populations with low plasma vitamin C levels

Clinical Question	Does vitamin C have a prophylactic or therapeutic effect in patients with/ at risk of pneumonia?
Bottom Line	There is no evidence to support widespread prophylactic use of vitamin C to prevent pneumonia in the general population. However, therapeutic vitamin C supplementation may be reasonable for pneumonia patients who have low plasma vitamin C levels because its costs and risks are low.
Context	Pneumonia is relatively common, particularly in young children and the aged. It is the most common cause of admission to hospital for adults in some developed countries
Caveat	Several of the studies reviewed date from many years ago and were conducted in such extraordinary conditions e.g extreme cold that the results may not apply to the general population. There were 37 cases of pneumonia out of 2335 participants.
Reference	Hemilia H et al. Vitamin C for preventing and treating pneumonia. Cochrane Reviews, 2007, Issue 1. This review had 5 trials which contributed data to the review. The studies ranged from 226 to 1435 participants.
Date (Author)	March 2007 (Brian R McAvoy)

NNT = numbers needed to treat to benefit one person

NNH = numbers needed to harm one person

Both NNT and NNH are only reported if the studies or pooling of studies is statistically significant

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