



RETRACTION NOTE

Retraction Note: Efficacy of vitamin C for the prevention and treatment of upper respiratory tract infection. A meta-analysis in children

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The Editor-in-chief and the authors retract the following article [1].

After publication, a reader has identified some mistakes in the data reported, these include the following:

- (i) Inclusion of studies which did not meet strict inclusion criteria: one with pseudo randomization allocation [2] and another one with the intervention group receiving vitamin C and herbal preparation containing Echinacea and propolis [3] which is relatively heavily weighted and has one of the strongest effects in the analysis of primary and secondary outcomes.

- (ii) Some data, numbers of upper respiratory tract infection (URTI) episodes and standard-deviations of URTI durations, extracted from studies were erroneous.
- (iii) Some statistical approaches performed in our meta-analysis are not appropriate and have not been described accurately. These errors are likely to invalidate the results.

The authors acknowledge and apologize for these involuntary errors. For these reasons, the article has been retracted.

References

1. Vorilhon P, Arpajou B, Vaillant Roussel H, Merlin  , Pereira B, Cabailot A (2019) Efficacy of vitamin C for the prevention and treatment of upper respiratory tract infection. A meta-analysis in children. *Eur J Clin Pharmacol* 75(3):303–311
2. Coulehan JL, Reisinger KS, Rogers KD, Bradley DW (1974) Vitamin C prophylaxis in a boarding school. *N Engl J Med* 290(1):6–10
3. Cohen HA, Varsano I, Kahan E, Sarrell EM, Uziel Y (2004) Effectiveness of an herbal preparation containing echinacea, propolis, and vitamin C in preventing respiratory tract infections in children: a randomized, double-blind, placebo-controlled, multicenter study. *Arch Pediatr Adolesc Med* 158(3):217–221

The original article can be found online at <https://doi.org/10.1007/s00228-018-2601-7>.

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