

Evidence Update

Child Health Series

May 2006

Should vitamin A be given routinely to children with pneumonia unrelated to measles?

There is not enough evidence to use vitamin A routinely in children with pneumonia unrelated to measles.

Inclusion criteria

Studies:

Parallel-arm randomized controlled trials (RCTs) and quasi-RCTs.

Participants:

Children under the age of 15 years with pneumonia unrelated to measles.

Intervention:

Intervention: vitamin A plus standard treatment.

Control: standard treatment, with or without placebo.

Outcomes:

Primary: death.

Other: signs of pneumonia (including fever, chest x-ray findings); clinical severity (including oxygen saturation, bronchial breathing, duration of hospitalization); adverse events following vitamin A intake.

Results

- Four RCTs and one quasi-RCT were included. Allocation concealment was adequate in two trials.
- No statistically significant difference was detected between vitamin A and placebo in relation to death (1159 participants, 2 trials); duration of hospital stay or fever (779 participants, 2 trials), or antibiotic failure (472 participants, 1 trial).
- The other three trials were small and showed mixed results.
- Vitamin A was not associated with excess adverse events in any of the trials that measured this.

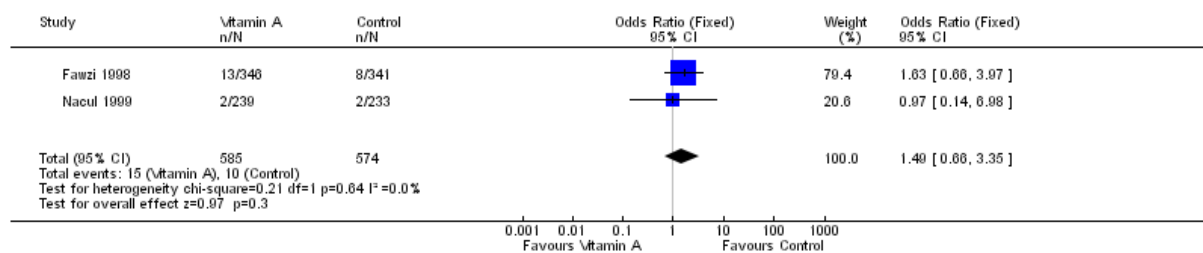


DFID Department for International Development

Adapted from Ni J, Wei J, Wu T. Vitamin A for non-measles pneumonia in children. *Cochrane Database of Systematic Reviews* 2005, Issue 3. Art. No.: CD003700. DOI: 10.1002/14651858. CD003700.pub2.

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Vitamin A compared with placebo: deaths during hospital stay



Authors' conclusions

Implications for practice:

There is insufficient evidence of clinical benefit to recommend vitamin A routinely in children with pneumonia unrelated to measles.

Implications for research:

The small size of the trials and variability in the measured outcomes limited the power of the meta-analyses. Large, well-designed trials examining the effectiveness and safety of vitamin A for children with pneumonia are needed. Trials should evaluate the effects of vitamin A in children at both high and low risk of deficiency, and examine different vitamin A doses to optimise possible benefits for children with pneumonia.