

# Evidence Update

Summary of a Cochrane Review

Child Health Series

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

There is not enough evidence to recommend routine vitamin A in children with pneumonia unrelated to measles.

## Background

Pneumonia causes many deaths in children under five. Vitamin A reduces mortality in children with pneumonia and measles together. This review examines whether a similar effect occurs with non-measles pneumonia.

## Inclusion criteria

### Studies:

Randomized controlled trials (RCTs) and quasi-RCTs.

### Participants:

Children under 15 years old with pneumonia unrelated to measles.

### Intervention:

Intervention: vitamin A plus standard treatment.

Control: standard treatment, with or without placebo.

### Outcomes:

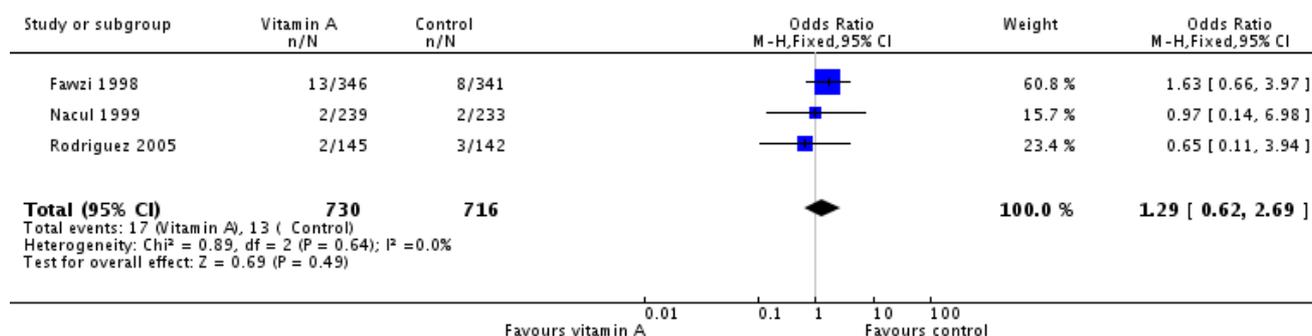
Primary: death.

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

- Five RCTs and one quasi-RCT were included, involving 1740 infants and children. Allocation concealment was adequate in three trials.
- No statistically significant difference was detected between vitamin A and placebo in relation to death during hospital stay (1146 participants, 3 trials), duration of fever (958 participants, 3 trials), or antibiotic failure (472 participants, 1 trial).
- Three trials reported minor and transitory adverse effects of Vitamin A.

## 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 non-measles 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 non-measles pneumonia.