

Evidence Update

Summary of a Cochrane Review

Other Infectious Diseases Series

Are probiotics effective for treating acute infectious diarrhoea?

Probiotics shorten the length of illness in people with acute infectious diarrhoea.

Background

Probiotics may improve outcomes in acute infectious diarrhoea.

Inclusion criteria

Studies:

Randomized and quasi-randomized controlled trials.

Participants:

Adults and children with acute diarrhoea (duration less than 14 days) proven or presumed to be caused by an infectious agent.

Intervention:

Specific, identified probiotics compared with placebo or no probiotic.

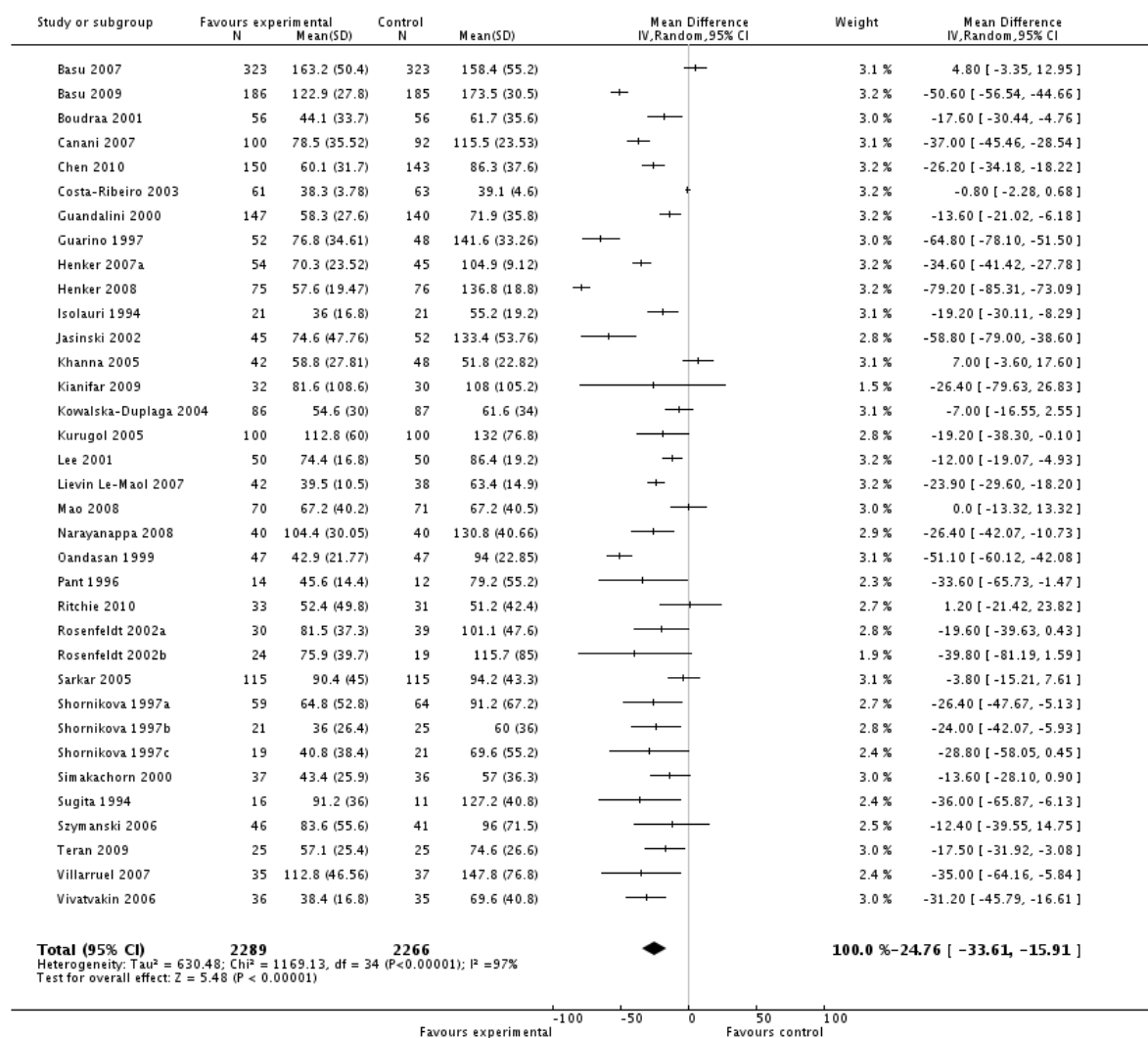
Outcomes:

Duration of diarrhoea; diarrhoea lasting 3 or more days and 4 or more days; stool frequency; adverse events.

Results

- 63 trials conducted mainly in countries with low mortality involving 8014 participants were included; 56 trials recruited infants and young children. Allocation concealment was adequate in 15 trials.
- Diarrhoea episodes were shorter with probiotics on average by 24.76 hours (95% confidence interval 15.9 to 33.6 hours; 4555 participants, 35 trials).
- Probiotics reduced diarrhoea lasting 3 or more days (relative risk 0.62, 95% confidence interval 0.56 to 0.70; 3022 participants, 30 trials) and 4 or more days (relative risk 0.41, 95% confidence interval 0.32 to 0.53; 2853 participants, 29 trials).
- No adverse events were attributed to probiotics in any of the trials examining this.

Probiotics vs control: mean duration of diarrhoea in hours



Authors' conclusions

Implications for practice:

Used alongside rehydration therapy, probiotics have clear beneficial effects in reducing the duration of an episode of diarrhoea. However, there are little data on specific probiotic regimens in different groups of patients.

Implications for research:

Randomized controlled trials of specific probiotic regimens in large numbers of participants with well defined diarrhoeal illness are needed. In particular, the ability of probiotics to prevent the progression from acute to persistent diarrhoea and associated malnutrition in children should be evaluated.