Abstract

Titel: Healthy with probiotics? -Does a daily intake of probiotics protect against or alleviate cold, fever and influenza symptoms?

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Programme: Dietician study programme, 180/240 ECTS
Type of paper: Examination paper, 15 hp
Date: 2011-05-24

Background: In Sweden adults are affected by in average one to two colds per year and children at least twice as often. Försäkringskassan paid for a total of 4 656 667 care-of-child-days in 2010. Probiotic bacteria in the gut compete with disease generating organisms and reduce their occurrence in the gut flora. If probiotics could be used to reduce or at least shorten the duration of the illness it would be a simple method at a relatively low cost which saves time, money and suffering for all parties.

Objective: The purpose of this systematic review was to investigate whether a daily intake of probiotics would be able to protect against or alleviate cold, fever and influenza symptoms.

Search strategy: Article search in the databases PubMed and Scopus was performed. Words used in the search were: probiotics, effect, common cold, fever, flu, influenza, respiratory diseases, lactobacillus and bifidus.

Selection criteria: Inclusion criteria for the article search were human RCT-studies where intervention was a daily use of probiotics. When vitamins and minerals were used as placebo the requirement was that these also were included in the intervention. Exclusion criteria were studies not written in Swedish or English and animal studies. Studies shorter than 60 days were excluded.

Data collection and analysis: Four articles passed the inclusion- and exclusion criteria and were chosen as foundation for the review after having critically analysed ten articles. Evidence grading was made according to GRADE.

Main results: A statistically significant difference was seen in all studies regarding fewer days duration of illness and in two studies regarding episodes of common cold. Concerning the other output measures different results were seen in the studies, partly because they used different output measures and different types and amount of probiotics.

Conclusions: There is high evidence (++++) that a daily intake of probiotics shortens the illness duration and reduces the occurrence of common cold episodes. There is low evidence (++) that probiotics protect against or alleviate other symptoms. Which strains of or combination of probiotics that provides the best effect needs more research.