
Treatment of the common cold with echinacea: a structured review

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CRD summary

This review concluded that the potential therapeutic effectiveness of echinacea in the treatment of the common cold has not been established. The review provided limited information on the review methods and included studies. These limitations make it difficult to assess whether the authors' conclusion is an accurate reflection of all the available evidence, and its reliability is unclear.

Authors' objectives

To examine the use of echinacea for the treatment of the common cold.

Searching

MEDLINE and PubMed were searched from 1966 to 2003 using the reported search terms. In addition, previous relevant reviews were checked for additional studies.

Study selection

Study designs of evaluations included in the review

Placebo-controlled studies were included in the review.

Specific interventions included in the review

Studies that compared the use of echinacea with a placebo that used inactive ingredients only were included in the review. Studies that included another active treatment in addition to echinacea were excluded, as were studies looking at the use of echinacea for the prevention of the common cold. Dosages of echinacea, number of doses per day, and the form in which echinacea was administered varied across the studies.

Participants included in the review

Studies of individuals with the common cold were included. The definitions of a cold varied considerably across the included studies. Studies of both adults and of children appear to have been included.

Outcomes assessed in the review

No inclusion criteria for the outcomes were stated. The outcomes in the included studies related to the symptoms, severity and duration of the common cold.

How were decisions on the relevance of primary studies made?

The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality

Validity was assessed according to 11 criteria: validated case definition, quantifiable hypothesis, sample size calculation, random assignment, double-blinding, measurement of compliance, measurement of drop-out rate, intention-to-treat analysis, methods of statistical analysis, and p-values and confidence intervals (CI) provided. The authors did not state how the validity assessment was performed.

Data extraction

The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction. The studies were categorised as finding a positive or negative result, as judged by the investigators conducting the work.

Methods of synthesis

How were the studies combined?

The studies were combined in a narrative.

How were differences between studies investigated?

Differences in the methodological quality of the studies and their relation to study findings were apparent in the tables and were discussed in the text.

Results of the review

Nine placebo-controlled trials (number of participants unclear) were included in the review.

Two studies fulfilled all 11 quality criteria, one study met 10 criteria, one 8 criteria, one 7 criteria, two 6 criteria, one 5 criteria and one 3 criteria. Seven studies lacked proof of blinding. Half of the studies did not include a quantifiable hypothesis, sample size calculation, measurement of compliance, description of methods of randomisation or similarity of groups, or provide validated case definitions. The studies that fulfilled all 11 criteria had negative results. Of the remaining studies, all but one had positive results. The study which met 10 quality criteria and found a positive result lacked proof of blinding.

Authors' conclusions

The potential therapeutic effectiveness of echinacea in the treatment of the common cold has not been established.

CRD commentary

The authors set out an objective at the beginning of the review, but the inclusion criteria were broad and were not defined for study outcomes. Few sources were searched, thereby increasing the likelihood that relevant studies might have been missed. Furthermore, it was unclear whether the search was restricted by language or publication bias. The authors did not report the methods used for the study selection, quality assessment or data extraction, which means that the possibility of bias in these processes cannot be assessed. Validity was assessed using appropriate criteria and the results were presented clearly.

Few study details were provided. The narrative synthesis seemed appropriate given the differences between the studies. However, the studies were simply categorised as finding a positive or negative result, with few details of the specific outcomes that had been assessed. This review provided very limited information about the review methods and included primary studies. These limitations make it difficult to assess whether the authors' conclusion is an accurate reflection of all the available evidence, and its reliability is unclear.

Implications of the review for practice and research

Practice: The authors did not state any implications for practice.

Research: The authors stated that further well-designed trials assessing the effectiveness of echinacea in the treatment of the common cold are required.

Bibliographic details

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