HTA - - Health Technology Assessment Report

Sodium chloride inhalation for the treatment of cystic fibrosis: a review of the clinical evidence, cost-effectiveness and guidelines.

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Participants

Adults and children with cystic fibrosis

Interventions

Hypertonic sodium chloride solutions (3% and 7% solutions or any other available dose). Comparators: placebo; Inhaled dornase alpha (Pulmozyme); Inhaled dornase alpha plus hypertonic solution; Inhaled N-acetylcysteine; Hypertonic sodium chloride plus other agents

Outcome measures

Clinical effectiveness (increased lung function, clear airways, decreased infection rate). Adverse events. Cost-effectiveness.

Main results

A total of 132 potential citations were identified by the bibliographic database search, with 108 citations being excluded during the title and abstract screening based on irrelevance to the questions of interest. The full text documents of the remaining 24 citations were retrieved. Three additional citations were identified by the grey literature search. Of the 27 articles, 20 did not meet the inclusion criteria and were excluded, leaving seven articles to be included in the review. The available evidence showed a limited clinical effectiveness of HTS; findings from the various studies were inconsistent. One study showed that under certain circumstances, HTS is less cost-effective than recombinant human DNase (rhDNase) when used among children between 6 to 18 years.

Authors' conclusions

The available evidence showed a limited clinical effectiveness of HTS; findings from the various studies were inconsistent. One study showed that under certain circumstances, HTS is less cost-effective than recombinant human DNase (rhDNase) when used among children between 6 to 18 years.

http://onlinelibrary.wiley.com/o/cochrane/clhta/articles/HTA-32012000700/frame.html

See also

Health Technology Assessment Database YR: 2012 NO: 1

Keywords

hydration; Hypertonic Solutions; Inhalation OR nebulised; nebuliser; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; Airway clearance drugs -expectorants- mucolytic- mucociliary-; Respiratory System Agents; Deoxyribonuclease; Acetylcysteine; N Acetylcysteine; thiols; Nacystelyn; Dornase alpha; Pulmozyme;