

Cochrane Database of Systematic Reviews - - Cochrane Review

Hypertonic saline nebulas for patients with cystic fibrosis and bronchioectasis: a review of the clinical and cost-effectiveness

Code: HTA-32011001289 **Year:** 2009 **Date:** 2012 - updated: 8 DEC 2015

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Study design (if review, criteria of inclusion for studies)

Randomized and quasi-randomized controlled studies of intravenous antibiotic treatment for adults and children with CF at home compared to in hospital.

List of included studies (1)

Wolter 1997

Participants

The review includes adults and children with CF diagnoses defined clinically and by sweat or genetic testing, including all ages and all degrees of severity, and who receive IV antibiotic treatment.

Interventions

Home intravenous antibiotics

Outcome measures

Primary outcomes 1. Lung function (change in per cent predicted or absolute change in FEV1, change in forced vital capacity (FVC), any other lung function parameters) 2. Lung infection (conversion of sputum from culture positive to culture negative, reduction in colony forming units (CFU) counts for *P. aeruginosa* and other micro-organisms) 3. Improvement of clinical score

Main results

Eighteen studies were identified by the searches. Only one study could be included which reported results from 17 participants aged 10 to 41 years with an infective exacerbation of *Pseudomonas aeruginosa*. All their 31 admissions (18 hospital and 13 at home after two to four days of hospital treatment) were analysed as independent events. Outcomes were measured at 0, 10 and 21 days after initiation of treatment. Home participants underwent fewer investigations than hospital participants (P

Authors' conclusions

Current evidence is restricted to a single randomized clinical trial. It suggests that, in the short term, home therapy does not harm individuals, entails fewer investigations, reduces social disruptions and can be cost-effective. There were both advantages and disadvantages in terms of quality of life. The decision to attempt home treatment should be based on the individual situation and appropriate local resources. More research is urgently required.

<http://www.cadth.ca/media/pdf/htis/L0077%20Hypertonic%20Saline%20final.pdf>

See also

Ottawa: Canadian Agency for Drugs and Technologies in Health (CADTH)

Keywords

Adult; Anti-Bacterial Agents; Child; Home; Home Care Services; Infection; Intravenous; non pharmacological intervention - psyco-soc-edu-org; pharmacological_intervention; Respiratory Tract Diseases; Respiratory Tract Infections; Self-Management; Bacterial Infections; Exacerbation; *Pseudomonas aeruginosa*; *Pseudomonas*; Organization;