primary studies - published RCT

Socioeconomic evaluation of the effect of rhDNase on the cost of treating infections of the respiratory tract in patients with cystic fibrosis.

Code: PM7776934 **Year:** 1995 **Date:** 1995 **Author:** von der Schulenburg JM

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

multicenter, placebo-controlled, double-blind, parallel clinical trial

Participants

The patients were randomly placed in one of three treatment groups.

Interventions

The first group was treated with a 2.5 mg dose of rhDNase and one dose of placebo daily, the second group with placebo twice a day. The third patient group (treated with a 2.5 mg dose of rhDNase twice a day) was not included in this study.

Outcome measures

number of hospitalizations, the number of total days in hospital, the number of total days of outpatient intravenous antibiotic therapy, the number of total days of inpatient intravenous antibiotic therapy, the number of total days of outpatient oral antibiotic therapy and the number of total days of inpatient oral antibiotic therapy. total direct cost, costs of antibiotics

Main results

The main measurements of resource utilization of services for treatment of respiratory-tract infections were the number of hospitalizations in the follow-up period of 24 weeks (0.41 rhDNase once daily, 0.56 placebo), the number of total days in hospital (4.9 rhDNase, 6.4 placebo), the number of total days of outpatient intravenous antibiotic therapy (2.9 rhDNase, 4.4 placebo), the number of total days of inpatient intravenous antibiotic therapy (4.8 rhDNase, 6.2 placebo), the number of total days of outpatient oral antibiotic therapy (23.5 rhDNase, 25.2 placebo) and the number of total days of inpatient oral antibiotic therapy (0.59 rhDNase, 0.55 placebo). From a health insurance perspective the total direct cost based on a weighted per diem for German CF-centres was 5,879 DM (rhDNase) vs 7,849 DM (placebo) per patient respectively. Costs of antibiotics were estimated using all available information on the consumption of antibiotic drugs revealing 2,954 DM per patient in the rhDNase-group and 4,213 DM in the placebo-group. The large cost differences remain also true in a sensitivity analysis introducing minima and maxima as key factors.

Authors' conclusions

As a result of this study we conclude that the use of rhDNase in treatment of respiratory-tract infections in patients with cystic fibrosis is cost saving and less burdened for the patients. However, all cost estimates do not include the cost of rhDNase itself, which are DM 9,094 for the period of follow-up.

http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/872/CN-00114872/frame.html

See also

Med Klin (Munich). 1995 Apr 15;90(4):220-4.

Keywords

Adolescent; Adult; Anti-Bacterial Agents; Child; Combined Modality Therapy; Deoxyribonuclease; Drug Administration Schedule; Airway clearance drugs -expectorants- mucolytic- mucociliary-; Infection; pharmacological_intervention; Recombinant Proteins; Respiratory Tract Infections; Bacterial Infections; Respiratory System Agents; Respiratory Tract Diseases; Dornase alpha; Pulmozyme; Inhalation OR nebulised; nebuliser;