primary studies - published RCT

Continuous versus intermittent infusions of ceftazidime for treating exacerbation of cystic fibrosis.

Code: PM19528265 **Year:** 2009 **Date:** 2009 **Author:** Hubert D

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

multicenter, randomized crossover study

Participants

Patients with chronic Pseudomonas aeruginosa colonization. 69 of the 70 patients enrolled in the study received at least one course of antibiotic treatment

Interventions

patients received two successive courses of intravenous tobramycin and ceftazidime (200 mg/kg of body weight/day) for pulmonary exacerbation administered as thrice-daily short infusions or as a continuous infusion.

Outcome measures

The primary endpoint was the variation in the forced expiratory volume in 1 s (FEV1) during the course of antibiotic treatment

Main results

The improvement in FEV1 at the end of therapy was not statistically different between the two treatment procedures (+7.6% after continuous infusion and +5.5% after short infusions) but was better after continuous ceftazidime treatment in patients harboring resistant isolates (P

Authors' conclusions

the continuous infusion of ceftazidime did not increase its toxicity and appeared to be as efficient as short infusions in patients with cystic fibrosis as a whole, but it gave better results in patients harboring resistant isolates of P. aeruginosa.

http://dx.doi.org/10.1128/AAC.00174-09

See also

Antimicrob Agents Chemother. 2009 Sep;53(9):3650-6. Epub 2009 Jun 15.

Keywords

Adolescent; Adult; Anti-Bacterial Agents; Ceftazidime; Continuous; Drug Administration Schedule; Intermittent; pharmacological_intervention; Intravenous; Bacterial Infections; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Exacerbation; Pseudomonas aeruginosa; Pseudomonas; Tobramycin; Cephalosporins; Aminoglycosides;