primary studies - published RCT

Comprehensive analysis of risk factors for acquisition of Pseudomonas aeruginosa in young children with cystic fibrosis.

Code: PM9727757 **Year:** 1998 **Date:** 1998 **Author:** Kosorok MR

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

randomized clinical trial

Participants

randomized clinical trial of neonatal screening for CF throughout the state of Wisconsin during the period of 1985-1994. Patients were selected based on either early identification through screening or diagnosis by standard methods.

Interventions

CF NBS

Outcome measures

To study the center effect further, we performed statistical analyses using survival curves and stepwise regression analysis of all life history covariates available.

Main results

The results of these analyses showed that the statistically significant correlations involve the following risk factors: 1) center and old hospital (r=0.42); 2) center and original physician (r=0.61); 3) center and exposure to pseudomonas-positive patients (r=0.29); and 4) population density and urban location (r=0.49). The final statistical model demonstrated that increased risk due to aerosol use (odds ratio=3.45, P=0.014) and a protective effect associated with education of the mother (odds ratio=0.81, P=0.024) were the most significant factors for acquisition of P. aeruginosa. The previously observed center effect was confined to the 1985-1990 interval at the old hospital (odds ratio=4.43, P

Authors' conclusions

Multiple factors are involved in increasing the risk of young children with CF to acquire P. aeruginosa, and that the observed center effect can best be explained by a combination of factors. These results suggest that facilities and methods used to care for young children with CF can significantly influence their likelihood of acquiring pseudomonas in the respiratory tract.

3.0.CO;2-K" target="_blank">http://dx.doi.org/10.1002/(SICI)1099-0496(199808)26:2<81::AID-PPUL2>3.0.CO;2-K

See also

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Keywords

Bacterial Infections; Child; Infection; Pseudomonas aeruginosa; Pseudomonas; Respiratory Tract Diseases; Respiratory Tract Infections;