

primary studies - published RCT

Bronchopulmonary disease in children with cystic fibrosis after early or delayed diagnosis.

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

randomized controlled trial with unique unblinding/surveillance

Participants

screened group = 56 patients; standard diagnosis (control group) = 47 patients

Outcome measures

When the youngest patient was 7 years of age, we compared outcomes using pulmonary function data and quantitative chest radiology.

Main results

In the screened group, diagnosis was made at a younger age of 12.4 weeks, compared with the diagnosis in control group at the age of 95.8 weeks, but included a significantly greater proportion of patients with deltaF508 genotypes and pancreatic insufficiency. The first chest radiograph showed significantly fewer abnormalities in the screened group; but, over time, the two groups converged, and after 10 years of age the screened patients showed worse chest X-ray scores associated with earlier acquisition of *Pseudomonas aeruginosa*. No differences were detected in any measure of pulmonary dysfunction, which was generally mild in each group

Authors' conclusions

Although CF neonatal screening provides a potential opportunity for better pulmonary outcomes, it appears that respiratory infections and pancreatic status are the dominant factors in pulmonary prognosis.

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See also

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Keywords

Adolescent; Bacterial Infections; Child; Gastrointestinal Diseases; Infant; Infection; Neonatal Screening; Newborn; non pharmacological intervention - diagn; *Pseudomonas aeruginosa*; *Pseudomonas*; Respiratory Tract Diseases; Respiratory Tract Infections; screening; diagnostic procedures;