primary studies - published RCT

Pseudomonas aeruginosa in children with cystic fibrosis diagnosed through newborn screening: assessment of clinic exposures and microbial genotypes.

Code: PM20575089 **Year:** 2010 **Date:** 2010 **Author:** Hayes D

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

RCT

Participants

A total of 39 infants with CF diagnosed through newborn screening

Interventions

infants randomly assigned to either a segregated (PA-free) or mixed (PA-positive) clinic at two different CF centers, one of which replaced an older, mixed clinic where nosocomial acquisition was suspected.

Outcome measures

Oropharyngeal (OP) swab cultures were examined with subsequent genotyping to characterize the strains of PA isolated.

Main results

We found that 13/21 segregated clinic patients and 14/18 mixed clinic patients showed positive PA, with median acquisition ages of 3.3 and 2.2 years, respectively (P = 0.57). The median time to PA acquisition, however, was significantly longer in the new clinic with proper hygiene precautions compared to an old site (5.0 years vs. 1.7 years, P

Authors' conclusions

Segregation of infants and young children with CF in PA-negative or PA-positive clinics did not alter the time to first PA isolation in this randomized assessment of facilities with hygienic precautions. During the early infection period where PA is first isolated in young children with CF, patients cleared different PA strains until a predominant strain established permanent colonization.

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See also

Pediatr Pulmonol. 2010 Jul;45(7):708-16.

Keywords

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