

primary studies - published RCT

Controlled trial of cycled antibiotic prophylaxis to prevent initial *Pseudomonas aeruginosa* infection in children with cystic fibrosis.

Code: PM20729233

Year: 2010 **Date:** 2013

Author: Tramper-Stranders GA

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

Randomised controlled trial.

Participants

Paediatric outpatients with CF.

Interventions

Participants were randomly allocated with a block on gender to a control (standard therapy) or intervention group (initial n=10 (6 boys) in each group; age 10+/-1 and 11+/-1 years). The latter group performed a combined programme (inspiratory muscle training - IMT, 2 sessions/day) and aerobic+strength exercises (3 days/week, in-hospital)) that was followed by a 4-week detraining period.

Outcome measures

Primary outcomes: lung volume, inspiratory muscle strength (P_Imax) and cardiorespiratory fitness (VO₂ peak). Secondary outcomes: and dynamic muscle strength, body composition and quality of life. All participants were evaluated at baseline, post-training and detraining.

Main results

Adherence to the training programme averaged 97.5%+/-1.7%. There was a significant interaction (groupxtime) effect for P_Imax, VO₂peak and five-repetition maximum strength (leg-press, bench-press, seated-row) (all p

Authors' conclusions

The relatively short-term (8-week) training programme used here induced significant benefits in important health phenotypes of paediatric patients with CF. IMT is an easily applicable intervention that could be included, together with supervised exercise training in the standard care of these patients.

<http://dx.doi.org/10.1136/thx.2009.126128>

See also

Thorax. 2010 Oct;65(10):915-20. Epub 2010 Aug 20.

Keywords

Child; non pharmacological intervention - psyc-soc-edu-org; training; inspiratory muscle training; exercise; Chest physiotherapy; non pharmacological intervention - devices OR physiotherapy; Aerobic training;