primary studies - published RCT

A randomised controlled trial of breathing modes for adaptive aerosol delivery in children with cystic fibrosis.

Code: PM21620782 **Year:** 2011 **Date:** 2011 **Author:** McCormack P

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

RCT

Participants

children with CF on long-term aerosol therapy

Interventions

children were randomly allocated to either TIM (target inhalation mode), which optimises patient inhalations through a direct feedback mechanism, or to continue TBM

Outcome measures

The primary outcome was nebuliser treatment times with secondary outcomes being adherence and patient preference

Main results

The ten children allocated TIM reduced their mean (SD) treatment times from 6.9(2.9) to 3.7(2.3) minutes ($p < 0.001$). In contrast, treatment times were unchanged in the ten children allocated TBM. Mean adherence was maintained in the TIM group but declined in patients allocated TBM by >5%. All children preferred TIM to TBM.

Authors' conclusions

TIM reduces nebuliser treatment times and may positively impact on adherence, although longer duration studies are required to examine this.

http://dx.doi.org/10.1016/j.jcf.2011.04.006

See also

J Cyst Fibros. 2011 Sep;10(5):343-9. Epub 2011 May 28.

Keywords

Inhalation OR nebulised; pharmacological_intervention; Respiratory Tract Diseases; Respiratory Tract Infections;