primary studies - published RCT

Comparison of manual and mechanical chest percussion in hospitalized patients with cystic fibrosis.

Code: PM8301432 **Year:** 1994 **Date:** 1994 **Author:** Bauer ML

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

Randomised controlled trial. Parallel design.

Participants

51 participants in publication (70 from author) randomly assigned to each group. Mean (SD) age: CCPT: 17 years (1.4); mechanical: 15.9 years (1.4). All participants completed the study.

Interventions

CCPT using manual versus mechanical percussion.

Outcome measures

FVC, FEV1, FEF25-75.

Main results

Mean improvement in forced expiratory volume at 1 second, forced vital capacity, and forced expiratory flow between 25% and 75% of forced vital capacity (+/- SEM) for manual percussion was 32.6% +/- 7%, 27.2% +/- 5%, and 38.1% +/- 10%, and for mechanical percussion was 28.5% +/- 4%, 28.7% +/- 4%, and 25.1% +/- 8%, respectively; p = not significant. Participants did not prefer mechanical chest percussion.

Authors' conclusions

Although equal efficacy of outpatient therapy remains to be proved, this study suggests that patients can be encouraged to use the form of chest percussion that they prefer.

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See also

J Pediatr. 1994 Feb;124(2):250-4.

Keywords

Adolescent; Airway clearance technique; non pharmacological intervention - devices OR physiotherapy; Percussion; pharmacological_intervention; Exacerbation; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Bacterial Infections; Chest physiotherapy;