primary studies - published RCT

Aerosol deposition in cystic fibrosis using an aerosol conservation device and a conventional jet nebulizer.

Code: PM8148194 **Year:** 1994 **Date:** 1994 **Author:** Marshall LM

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

Randomised cross-over study.

Participants

12 people with CF (6 male, 6 female). Age: mean 12.7 (range 10 to 16). FEV1 >40%. No respiratory exacerbation within last 2 weeks.

Interventions

Acorn nebulizer and mouthpiece alone, and the Acorn nebulizer attached to the Mizer Aerosol Conservation Device (MACD).

Outcome measures

deposition of technetium radiolabelled aerosol within the lungs

Main results

The total activity delivered to the patient using the MACD was 11.1% (+/- 7.8% s.d.) of the initial dose, compared to 5.8% (+/- 4.2% s.d.) with the nebulizer and mouthpiece alone (P

Authors' conclusions

The Mizer Aerosol Conservation Device significantly increases both total intrapulmonary aerosol deposition and peripheral aerosol distribution.

http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/261/CN-00100261/frame.html

See also

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Keywords

Adolescent; Child; Inhalation OR nebulised; nebuliser; non pharmacological intervention - devices OR physiotherapy;