

primary studies - published RCT

"You're on mute!" Does pediatric CF home spirometry require physiologist supervision?

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

Randomized controlled trial

Participants

Sixty-one children with CF

Interventions

Children were randomly allocated to either supervised or unsupervised home spirometry following a detailed training session. Home spirometry was performed every 2 weeks for 12 weeks.

Outcome measures

Tests were assigned a quality factor (QF) using our laboratory grading system as per American Thoracic Society/European Respiratory Society standards, with tests marked from A to D, or Fail. In our laboratory, we aim for QF A in all spirometry tests, but report results of QF B or C with a cautionary note. QF A was, therefore, the primary outcome, and QF A-C, the secondary outcome.

Main results

Sixty-one patients were enrolled; 166 measurements were obtained in the supervised group, and 153 in the unsupervised group. Significantly more measurements achieved QF A in the supervised compared to unsupervised group (89% vs. 74%; $p < 0.001$).

Authors' conclusions

These results suggest that home spirometry in children should ideally be remotely supervised by a physiologist, but acceptable results can be obtained if resources do not allow this, provided that training is delivered and results monitored according to our protocol.

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See also

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Keywords

Adolescent; Adult; Child; training; non pharmacological intervention - psycho-soc-edu-org;