

Other Reviews - - Other Review

# The effect of a 12-week tele-exercise using immersive virtual reality on functional capacity in adolescents with cystic fibrosis: A randomized controlled, single (assessor) - blind study.

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

Systematic Review

## Participants

Randomized controlled trials (RCTs) and cohort studies. Cystic fibrosis (CF) patients with chronic lung inflammation and decline. A total of 18 studies comprising 2877 patients were included, with 11 studies meeting the criteria for inclusion in the meta-analysis.

## Interventions

Azithromycin (AZM)

## Outcome measures

Continuous outcomes were expressed as weighted mean differences with standard deviation (SD), and dichotomous variables were reported as relative risks with a 95 % confidence interval (CI). Need for new oral antibiotics, adverse events, lung function (FEV1, FVC, FEF), inflammatory markers, and pulmonary exacerbations

## Main results

AZM significantly reduced the need for new oral antibiotics (RR = 0.77; 95 % CI: [0.66, 0.89]). No significant increase in adverse events was observed. However, lung function (FEV1, FVC, FEF), inflammatory markers, and pulmonary exacerbations remained unchanged.

## Authors' conclusions

Azithromycin holds promise for managing CF, but further research is needed to fully understand its long-term impact on lung health and resistance patterns.

<http://dx.doi.org/10.1016/j.rmed.2025.108362>

## See also

Respir Med. 2025 Nov;248:108362. doi: 10.1016/j.rmed.2025.108362. Epub 2025 Sep 20.

## Keywords

Anti-Bacterial Agents; Anti-Inflammatory Agents; Azithromycin; Child; pharmacological\_intervention;