Other Reviews - - Other Review

Examining the safety and efficacy of Azithromycin in Cystic fibrosis: A systematic review and Meta-analysis.

Code: PM40554009 **Year:** 2025 **Date:** **Author:** Elmegeed AA

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.

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See also

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Keywords

Anti-Bacterial Agents; Anti-Inflammatory Agents; Azithromycin; Child; pharmacological_intervention;