Other Reviews - - Other Review

Cystic fibrosis-related diabetes in the era of modern treatment using CFTR modulators in pediatric patients-a systematic review.

Code: PM41332894 **Year:** 2025 **Date:** **Author:** Pietrzykowska A

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

Systematic review

Participants

Children and adolescents with Cystic fibrosis-related diabetes (CFRD)

Interventions

Cystic fibrosis transmembrane conductance regulator modulators (CFTRm)

Outcome measures

Glucose tolerance and insulin secretion;

Main results

From almost 653 initially identified records 5 studies met inclusion criteria - 1 clinical trial, 2 observational studies and 2 case reports. Evidence suggests CFTRm may improve glucose tolerance and insulin secretion in some pediatric patients, particularly in those with preserved Î²-cell function or early-stage CFRD. However, results varied across studies with some showing no significant improvements in glycemic control.

Authors' conclusions

While early findings suggest CFTR modulators may offer metabolic benefits and potentially delay or reduce the need for insulin therapy in children CFRD, current evidence is limited. Larger, pediatric-focused clinical trials with standardized glycemic outcomes are essential to determine the long-term efficacy and safety of CFTRm in managing or preventing CFRD.

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See also

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Keywords

CP-656; Aminophenols; CFTR Modulators; deutivacaftor; elexacaftor; ivacaftor; ivacaftor+lumacaftor; ivacaftor+tezacaftor; ivacaftor+tezacaftor+elexacaftor; lumacaftor; Orkambi; pharmacological_intervention; Symdeko; Symkevi; tezacaftor; Trikafta; vanzacaftor; VX-121; VX-152; VX-371; VX-440; VX-445; VX-561; VX-659; VX-661; VX-770; VX-809; kaftrio;