

Other Reviews - - Other Review

# Impact of Elexacaftor/Tezacaftor/Ivacaftor on Glucose Tolerance and Abnormal Glucose Metabolism: A Phase 3b, Open-Label Clinical Trial.

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## 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  $\beta$ -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.

<http://dx.doi.org/10.1164/rccm.202411-2312OC>

## 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;