An official website of the United States government
Here's how you know

FULL TEXT LINKS

ELSEVIER OPEN ACCESS

Review Diabetes Res Clin Pract. 2024 Nov:217:111879. doi: 10.1016/j.diabres.2024.111879. Epub 2024 Oct 5.

Type 2 diabetes in children and adolescents: Challenges for treatment and potential solutions

Ivy Lee Jia Jia [1], Simona Zampetti [2], Paolo Pozzilli [3], Raffaella Buzzetti [4]

Affiliations

PMID: 39369858 DOI: 10.1016/j.diabres.2024.111879

Free article

Abstract

Historically perceived as a disease mainly affecting adults, the prevalence of type 2 diabetes mellitus (T2DM) among children and adolescents has been rising, mirroring the increasing rates of childhood obesity. Currently, youth-onset T2DM poses a significant public health challenge globally. Treating youth-onset T2DM poses numerous critical challenges, namely limited and inadequate therapeutic options, and difficulties with conducting therapeutic studies. As a result, current treatment guidelines are based on adult studies and expert consensus. Few prominent guidelines on the treatment of youth-onset T2DM have been published recently, i.e., by the American Diabetes Association (ADA) 2024, National Institute for Healthcare and Excellence United Kingdom (NICE UK) 2023, International Society Paediatric and Adolescents Diabetes (ISPAD) 2022, Australasian Paediatric Endocrine Group (APEG) 2020 and Diabetes Canada 2018. This review first explores the unique aspects of youth-onset T2DM. It then summarises the different treatment guidelines, discusses the different treatment modalities based on available evidence and identifies any gaps. The review also explores challenges in the treatment of youth-onset T2DM with potential solutions and discusses recent trials on the treatment of youth-onset T2DM. Continued research aims to optimise treatment, improve outcomes, and alleviate the burden of T2DM on youths.

Keywords: Adolescent Diabetes; Childhood Obesity; Diabetes Guidelines; Diabetes Management in Adolescents; Paediatric Diabetes; Type 2 diabetes.

Copyright © 2024 The Author(s). Published by Elsevier B.V. All rights reserved.

PubMed Disclaimer

Related information

MedGen

LinkOut - more resources

Full Text Sources

ClinicalKey

Elsevier Science

Medical

MedlinePlus Health Information

Research Materials

NCI CPTC Antibody Characterization Program