

### Supplementary Table 1 Bibliometrics Literature Retrieval Formula

Topic	Search terms
Diabetes Mellitus, Type 2-related topic	"Diabetes Mellitus, Type 2" OR "Diabetes Mellitus, Type II" OR "Type 2 Diabetes Mellitus" OR "Type II Diabetes Mellitus" OR "Type 2 Diabetes" OR "Type II Diabetes" OR "Diabetes, Type 2" OR "Diabetes, Type II" OR "T2D"
Child -related topic	"Child" OR "Children" OR "Childhood" OR "Childhoods"
Adolescent -related topic	"Adolescent" OR "Adolescents" OR "Adolescence" OR "Teens" OR "Teen" OR "Teenagers" OR "Teenager" OR "Youth" OR "Youths" OR "juvenile" OR "Adolescences"

Finally search in Web of Science Core Collection:

(TS=("Child" OR "Children" OR "Childhood" OR "Childhoods" OR "Adolescent" OR "Adolescents" OR "Adolescence" OR "Adolescences" OR "Teens" OR "Teen" OR "Teenagers" OR "Teenager" OR "Youth" OR "Youths" OR "Juvenile")) AND TS=("Diabetes Mellitus, Type 2" OR "Diabetes Mellitus, Type II" OR "Type 2 Diabetes" OR "Type II Diabetes" OR "Diabetes, Type 2" OR "Diabetes, Type II" OR "T2D")

### Supplementary Table 2 International Guide Literature Retrieval Formula

	Search terms
Finally search in Web of Science Core Collection	(TS=("Diabetes Mellitus" OR "Diabetes") AND (OG=("World Health Organization" OR "European Association for the Study of Diabetes" OR "American Diabetes Association") OR GP=("World Health Organization" OR "European Association for the Study of Diabetes" OR "American Diabetes Association"))))
Finally search in PubMed	((Diabetes Mellitus[Title/Abstract]) OR (Diabetes[Title/Abstract])) AND (practice guideline[Publication Type])

Unique  
Identifier

**Supplementary Table 3 Changes in relevant guidelines for children and adolescents with diabetes over the years**

No.	Guide & consensus	Years	Institution	Updated entries for children and adolescents
1	Classification and diagnosis of diabetes mellitus and other categories of glucose intolerance <sup>[1]</sup>	1979	NIH	NA
2	Diabetes mellitus. Report of a WHO Study Group <sup>[2]</sup>	1985	WHO	NA
3	Screening for diabetes. Diabetes Care <sup>[3]</sup>	2000	ADA	Minors and individuals diagnosed with diabetes should not be tested for blood glucose levels
4	Insulin administration <sup>[4]</sup>	2000	ADA	NA
5	Type 2 diabetes in children and adolescents <sup>[5]</sup>	2000	ADA	It is the first time to make specific interpretation and clinical

	<p>American Diabetes Association and National Institute of Diabetes, Digestive and Kidney Diseases. The prevention or delay of type 2 diabetes. Diabetes Care<sup>[6]</sup></p>	2002	ADA	<p>recommendations for children and adolescents with type 2 diabetes</p> <p>· There is no data to support IFG or IGT screening for children, although there are suggestions for screening children with diabetes</p>
7	<p>Standards of medical care for patients with diabetes mellitus<sup>[7]</sup></p>	2002	ADA	<p>· Consistent with adult screening recommendations, only children and adolescents with or at increased risk of developing type 2 diabetes should be tested</p> <p>· For adolescents with type 2 diabetes, promote changes in diet and physical activity habits, thereby reducing insulin resistance and improving metabolic status.</p> <p>Supplement the test standards for type 2</p>

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				diabetes in children.
8	Screening for type 2 diabetes. Diabetes Care <sup>[8]</sup>	2003	ADA	<ul style="list-style-type: none"> <li>·Consistent with adult screening recommendations, only children and adolescents at significant risk of having or developing type 2 diabetes should be tested.</li> </ul>
9	Care of children with diabetes in the school and day care setting <sup>[9]</sup>	2003	ADA	<ul style="list-style-type: none"> <li>·Regulations on Social Organization Support Standards for Children and Adolescents with Type 2 diabetes.</li> <li>·Nutritional advice for adolescents with type 2 diabetes focuses on the treatment goal of normalizing blood sugar and promoting a healthy lifestyle</li> </ul>
10	Nutrition principles and recommendations in diabetes <sup>[10]</sup>	2004	ADA	<ul style="list-style-type: none"> <li>·The Influence of Adolescent Development on Children and Adolescents with diabetes</li> <li>·Distinguish between</li> </ul>
11	Care of children and adolescents with type 1 diabetes: a statement of the American Diabetes Association <sup>[11]</sup>	2005	ADA	

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				type 1 and type 2 diabetes in adolescents based on patient characteristics, medical history and laboratory tests
12	Use of insulin pediatric pump therapy in the age-group <sup>[12]</sup>	2007	EASD	·Discuss the benefits, risks, and treatment options of new treatment methods for pediatric and adolescent populations
13	Standards of medical care in diabetes <sup>[13]</sup>	2008	ADA	Suggestions on screening and management of chronic complications of type 1 and type 2 diabetes in children
14	Nutrition recommendations and interventions for diabetes <sup>[14]</sup>	2008	ADA	Although there is not enough data to support any specific recommendations for the prevention of type 2 diabetes in adolescents, interventions similar to those proven to be effective in the

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			<p>prevention of type 2 diabetes in adults (lifestyle changes, including reducing energy intake and regular physical activity) may be beneficial. Clinical trials of such intervention measures are currently underway in children.</p>
15	Standards of medical care in 2010 diabetes <sup>[15]</sup>	2010 ADA	<p>The detection frequency of type 2 diabetes in asymptomatic children has changed from every two years to every three years</p>
16	Exercise and type 2 diabetes <sup>[16]</sup>	2010 ADA	<p>Insufficient evidence, limited evidence suggests that physical activity is beneficial</p>
17	Diabetes care for emerging adults: recommendations for transition from pediatric to adult diabetes care	2011 ADA	<p>Research evidence and suggestions on the transition from paediatrics to adult care for young people with type 2 diabetes</p>

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systems<sup>[17]</sup>

18 Standards of medical care in 2014 ADA diabetes<sup>[18]</sup>

·The goal setting of blood glucose and the prediction and management of complications in adolescents with diabetes

19 Standards of Medical Care in 2015 ADA Diabetes<sup>[19]</sup>

·In order to reflect new evidence about the risks and benefits of strict glycemic control in children and adolescents with diabetes, the standard now recommends that the target A1C of all pediatric age groups be <7.5%; However, personalization is still encouraged.

20 Standards of Medical Care in 2016 ADA Diabetes<sup>[20]</sup>

·Emphasize the nuances of diabetes care in the pediatric population. This includes new recommendations on self-management education and support

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for diabetes, psychosocial problems, and treatment guidelines for youth with type 2 diabetes.

·According to the scientific statement of the American Heart Association and ADA on type 1 diabetes and cardiovascular disease, the recommendation to obtain children's fasting blood lipid profile from the age of 2 has been changed to 10 years old.

·Emphasis was placed on the importance of assessing and referring adolescent social and psychological issues.

·Encourage all girls with fertility to start pre pregnancy counseling from adolescence.

·Added discussion on distinguishing type 1 and type 2 diabetes in adolescents.

·Describes recent

Standards of  
21 Medical Care in 2017 ADA  
Diabetes<sup>[21]</sup>



		evidence of metabolic surgery for obese adolescents with type 2 diabetes
22	Standards of Medical Care in 2018 ADA Diabetes <sup>[22]</sup>	·The detection recommendations for children and adolescents with pre diabetes and type 2 diabetes have changed. It is recommended to detect adolescents who are overweight or obese and have one or more additional risk factors
23	Evaluation and Management of Youth-Onset Type 2 Diabetes: A Position Statement by the American Diabetes Association <sup>[23]</sup>	·Enrich the recognition of type 2 diabetes in youth, its risk factors, its pathophysiology, its management, and the prevention of associated complications.
24	Children and Adolescents: Standards of Medical Care in Diabetes <sup>[24]</sup>	·Develop diabetes management recommendations for adolescents, involving screening, diagnosis, evaluation,

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management, pediatric transitional adult care, social support, etc

·A recommendation has been added to emphasize the need to screen adolescents with type 1 diabetes for eating disorders from the age of 10-12.

·Based on new evidence, a suggestion has been added to discourage teenagers from using electronic cigarettes.

·Added new chapters and/or recommendations for children and adolescents with type 2 diabetes

·Added new A1C target recommendations in the 'Blood Sugar Control' section

·Due to new evidence and FDA approval of liraglutide for children aged 10 years or older, a new recommendation

Standards of  
25 Medical Care in 2019 ADA  
Diabetes<sup>[25]</sup>

Standards of  
26 Medical Care in 2020 ADA  
Diabetes<sup>[26]</sup>

				has been added in the "drug management" section of type 2 diabetes.
				·A new suggestion on drug treatment of hypertension in type 2 diabetes has also been added.
27	Glucose management for exercise using continuous glucose monitoring (CGM) and intermittently scanned CGM (isCGM) systems in type 1 diabetes <sup>[27]</sup>	2020	ADA & EASD	·Updated exercise guidelines for adults, children and adolescents with type 1 diabetes.
28	Standards of Medical Care in Diabetes <sup>[28]</sup>	2021	ADA	·A new recommendation has been added regarding the evaluation of food safety, housing stability/homelessness, health literacy, financial barriers, and social/community support and their application in treatment decision-making. ·Three new

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recommendations have been added in the "blood glucose control" section of type 1 diabetes, one is about real-time CGM, one is about intermittent scanning CGM, and the other is about the use of CGM indicators in the last 14 days.

·For physical activities of adolescents with pre diabetes and type 2 diabetes, 13.58 has been changed to at least 60 minutes a day, and at least 3 days a week of bone and muscle strength training.

·Added discussion on the importance of adult carers for adolescent diabetes

self-management, and how they should participate to ensure that the responsibility for self-management will not be transferred to adolescents prematurely

·Added more content on reproductive counseling for young women considering ACE inhibitors and ARBs  
·A new suggestion on the use of CGM in type 2 diabetes youth who received multiple daily injections or continuous subcutaneous insulin infusion was added

Management of ADA & NA  
30 hyperglycaemia in 2022 EASD  
type 2 diabetes<sup>[30]</sup>

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WHO: World Health Organization; EASD: European Association for the Study of Diabetes; ADA: American Diabetes Association; CGM: continuous glucose monitoring; ARBs: Angiotensin Receptor Blockers; ACE: Angiotensin Converting Enzyme.

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