

ISPAD Clinical Practice Consensus Guidelines 2009 Compendium

Introduction

This supplement of *Pediatric Diabetes* is the compendium of guidelines chapters published 2006–2008 as individual articles in *Pediatric Diabetes*, which are available on ISPAD's website www.ispad.org. The guidelines have been modified and updated to reflect major new evidence published since they were published previously.

In 2007, the total child population of the world (0–14 years) was estimated to be 1.8 billion, of whom 0.02% have diabetes. This means that approximately 440,000 children around the world have diabetes with 70,000 new cases diagnosed each year (1). However, field data would suggest that some individual country estimates (especially in Africa) are over-estimated. This very large number of children need help to survive with injections of insulin to live a full life without restrictions or disabling complications and without being stigmatized for their diabetes.

Even today, almost a century after the discovery of insulin, the most common cause of death in a child with diabetes from a global perspective is lack of access to insulin (2). Many children die before their diabetes is diagnosed. It is therefore of utmost importance that all forces unite to make it come true that no child should die from diabetes. A promising initiative has been taken by IDF/Life for a Child (www.lifeforachild.org) in collaboration with ISPAD and other organizations (Access to Essential Diabetes Medicines for Children in the Developing World). Several major companies that produce insulin and other diabetes supplies have pledged their support, and the numbers of children provided with insulin will according to plan increase to approximately 12,000 in 2010 and 30,000 by 2015. ISPAD has pledged structural support and assistance in the training of paediatricians and healthcare professionals in childhood and adolescent diabetes through its membership network.

In 1993, members of the International Society for Pediatric and Adolescent Diabetes (ISPAD) formulated the Declaration of Kos, proclaiming their commitment to “promote optimal health, social welfare and quality of life for all children with diabetes around the world by the year 2000.” Although all the aims and ideals of the Declaration of Kos had not been reached by 2000, we feel that slowly, by small steps, the worldwide care of children is improving.

ISPAD published its first set of guidelines in 1995 (3) and its second in 2000 (4). Since then, the acceptance of intensive therapy, also for very young children, has increased around the world. Insulin pump usage has risen in all age groups in countries where this treatment modality can be afforded. Intensive therapy requires better and more comprehensive education for it to be successful.

The *ISPAD Consensus Guidelines 2000* has been translated into 11 languages, indicating the need for a truly international document. In 2003–2005, national guidelines for childhood diabetes have been released: the Australian Clinical Practice Guidelines from the National Health and Medical Research Council, (Writing Committee Chair, Martin Silink) (5); in the United Kingdom, the National Institute for Clinical Excellence (NICE) Clinical Guideline (Group Leader Stephen Greene) (6). Both these publications are truly evidence-based in that they deal with the body of evidence with a systematic approach, grading each reference and building the case for each recommendation. In 2003 the Canadian Diabetes Association published *Clinical Practice Guidelines* with chapters both on type 1 and type 2 in children and adolescents (7). In 2005, the American Diabetes Association (ADA) published their statement on the care of children and adolescents with type 1 diabetes (8).

This updated third edition of ISPAD's *Consensus Guidelines*, now *Clinical Practice Consensus Guidelines* is much larger, and has been enriched by the above mentioned national guidelines. In the Introduction to the 2000 ISPAD Guidelines the acknowledged intention was for the next guidelines to be referenced. We have used the ADA grading system for grading evidences (9). Whenever possible, the reference for a statement or recommendation has been included, but as the reader will see, a vast majority of the recommendations and suggestions do have the grade E (Expert consensus or clinical experience).

The updated 2009 guidelines are based on a wide consensus of clinical practice. They were drafted by international writing teams, modified by experts in different specialties from many countries, debated at the annual ISPAD meetings in 2005–2008 by the members, and were reviewed by members via the Internet and the

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The American Diabetes Association evidence grading system for clinical practice recommendations is as follows:

Level of evidence	Description
A	Clear evidence from well-conducted, generalizable, randomized, controlled trials that are adequately powered, including: <ul style="list-style-type: none">• Multicenter trial• Meta-analysis incorporating quality ratings• Compelling nonexperimental evidence (i.e. “all-or- none” rule) developed by the Center for Evidence-based Medicine at Oxford* Supportive evidence from well-conducted, randomized, controlled trials that are adequately powered, including: <ul style="list-style-type: none">• Well-conducted trials at ≥ 1 institution
B	Supportive evidence from well-conducted cohort studies including: <ul style="list-style-type: none">• Prospective cohort studies or registry• Meta-analysis of cohort studies
C	Supportive evidence from a well-conducted case-control study. Supportive evidence from poorly controlled or uncontrolled studies including: <ul style="list-style-type: none">• Randomized clinical trials with one major or three minor methodological flaws that could invalidate the results• Observational studies with high potential for bias• Case series or case reports
E	Conflicting evidence with the weight of evidence supporting the recommendation. Expert consensus or clinical experience.

*Either all patients died before therapy and at least some survived with therapy or some patients died without therapy and none died with therapy (e.g., the use of insulin in the treatment of diabetes ketoacidosis).

ISPAD website. As far as possible, significant input by individuals has been acknowledged. Many thanks to the large number of individuals who have contributed but whose names could not be included.

As the 2000 Guidelines, the 2006–2008 Guidelines and the 2009 Compendium places education at the center of clinical management. Education is the vehicle for optimal self-management, the key to success. New chapters have been added on type 2 diabetes in children and adolescents, monogenic diabetes, exercise and cystic fibrosis related diabetes.

We hope therefore that the guidelines will be widely consulted and will be used to:

- improve awareness among governments, state health care providers and the general public of the serious long-term implications of poorly managed diabetes and of the essential resources needed for optimal care
- assist individual care givers in managing children and adolescents with diabetes in a prompt, safe, consistent, equitable, standardized manner in accordance with the current views of experts in the field.

As in 2000, “these guidelines are not strict protocols nor are they the final word”. Individual clinical judgment and decision making also require the family’s values and expectations to be considered with the best outcomes being reached by consensus.

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Editors of the 2006–2008 and 2009 ISPAD Clinical Practice Consensus Guidelines

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