TYPE 1 DIABETES MELLITUS IN CHILDREN AND ADOLESCENTS IN INDIA

CLINICAL PRACTICE GUIDELINES 2017

ISPAE DIABETES GUIDELINES 2017

INDIAN SOCIETY FOR PEDIATRIC AND ADOLESCENT ENDOCRINOLOGY

PEDIATRIC AND ADOLESCENT ENDOCRINOLOGY CHAPTER
INDIAN ACADEMY OF PEDIATRICS

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INTRODUCTION

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Several excellent guidelines are available for the management of type 1 diabetes mellitus (T1DM) in children and adolescents. These include the International Society of Pediatric and Adolescent Diabetes (ISPAD) guidelines (2014), Australian guidelines (2011), Canadian Diabetes Association guidelines (2013) and the American Diabetes Association (ADA) guidelines (revised in 2016). One may therefore ask – what was the need for publishing the present set of guidelines?

In the year 2011, the Indian Society for Pediatric and Adolescent Endocrinology (ISPAE) brought out its own "Clinical Practice Guidelines for Type 1 Diabetes Mellitus in Children and Adolescents in India". The ISPAE guidelines have been written keeping in mind the situation prevailing in our country, facilities available in our country, and the constraints under which we work. These guidelines summarize the latest scientific data on the subject and offer suggestions on how best to apply the same for optimum results in the Indian scenario. Since the publication of the first edition, advances in management of T1DM have been taking place at a rapid pace, and hence the editors felt the need to revise and update the guidelines.

T1DM is the commonest metabolic-endocrine disease in children and adolescents. There has been a significant increase in the number of new cases in the past few years, especially in the age group of 1-5 years. There are very few specialized pediatric endocrinologists and pediatric diabetologists in our country. Some patients are managed by the "adult" diabetologist or endocrinologist. Most pediatric patients with diabetes are treated by the general pediatrician. Since a practicing pediatrician in India is not likely to encounter more than a couple of new cases each year, it is not possible for him / her to learn and apply the finer points of diabetes management. These guidelines should serve as a quick and ready reference manual for those caregivers who are not specialized in pediatric diabetes care.

In India, few centers are able to provide a team based approach for management of diabetes in the pediatric age group. A 24-hour helpline for these patients is virtually non-existent. Little attention is paid to the psychosocial needs of the patients. There are very few diabetes support groups.

Most schools in our country are neither geared for, nor willing to take up, any responsibility for caring for the child with diabetes.

The different types of foods we consume in various parts of our vast country and lack of freely available data on carbohydrate content of our foods poses a major challenge.

The joint family system creates a problem especially with meal planning. The same system, if properly harnessed, can afford parents the benefit of additional support and assistance in managing the child with diabetes.

Poverty, absence of government funding and illiteracy are some of the other important hurdles in the management of T1DM. Misconceptions about the condition, and those affected by it, are rampant. Blind faith in alternative systems of medicine often leads patients to omit insulin therapy, with disastrous results.

Availability of the latest medications and devices for management of diabetes is no longer a problem. The challenge lies in making these available to all classes of patients and ensuring that they are utilized appropriately so as to derive maximum benefit.

For all the above mentioned reasons, the ideal therapeutic approach may not always be the most practical one to follow. This book on guidelines for diabetes management by the ISPAE has been prepared, keeping these factors in mind.

Four new chapters have been added in the present edition. *The first month after diagnosis of type 1 diabetes mellitus* is a crucial period. Patients and their families have to be helped to overcome the initial shock and denial, and to accept the diagnosis with a positive outlook. At the same time, insulin therapy must be initiated, patients must be trained in basics of diabetes self-management, and preliminary work-up to define the type of diabetes and to look for co-morbidities must be undertaken. Families need constant guidance as the phase of metabolic recovery (with high insulin requirements) gradually gives way to the honeymoon phase (with rapidly dropping insulin needs). The quality of care received during this period will have a bearing on the long term outcome.

T1DM is a lifelong disease and the treatment can be very expensive. Knowledge of *the economics of diabetes care in the pediatric age group* can help the treating doctor to choose the best treatment for a given patient, keeping in mind his / her financial status. This chapter will focus on how T1DM can be controlled reasonably well even without the newer costly medications or gadgets.

Neonatal diabetes mellitus (diabetes with onset in the first six months of life) is unlikely to be T1DM. It needs a special work-up, to distinguish between transient and permanent varieties and to detect as early as possible, with the help of genetic molecular studies, whether the patient would be sulfonylurea-responsive or insulin-dependent. Further, certain syndromes can present with neonatal diabetes. Making a precise diagnosis can improve the outcome by alerting the treating doctor about the appropriate treatment and possible known associations.

Type 2 diabetes mellitus (T2DM) is assuming epidemic proportions *in the adolescent age group* in some parts of the world and is also being encountered in urban India. Every pediatrician needs to be conversant with the primary prevention, early detection (by screening appropriate populations) and management of this disease. Guidelines on pediatric T1DM would be incomplete without a discussion on this variety of diabetes.

These guidelines on practical diabetes management in childhood have been written specially keeping in mind the social and economic conditions in which our patients live and we work. Nevertheless, every attempt has been made to refer to international texts and clinical practice guidelines as recent as 2016. The handbook should be useful to pediatricians, pediatric endocrinologists and endocrinologists, diabetologists and physicians, nurse educators, dieticians and counselors.