

Medical Guidelines for the Management of Diabetes



Table of Contents

Introduction.....	1
Part 1: Diabetes Mellitus.....	2
Background.....	2
Classification.....	3
Old classification of diabetes (WHO, 1985).....	3
New classification of diabetes (WHOWG, 1998).....	4
Diagnosis.....	8
Screening.....	9
Prevention.....	10
Type I diabetes.....	10
Type II diabetes.....	10
Part 2: General Principles of Diabetes Care.....	11
Treatment Goals.....	11
Organisation of Diabetes Care.....	12
Framework for diabetes care.....	12
The Diabetes Consultation.....	14
Medical history.....	14
Physical examination.....	15
Laboratory evaluation.....	15
Annual review.....	16
Professional training and continuing education.....	16
Referral to Specialist.....	17
Conditions Requiring a Mandatory Specialized Supervisor.....	17
Part 3: Targets of Diabetes Control.....	18
Recommendations for metabolic and non-metabolic targets.....	18
Part 4: Components of Treatment Programs.....	20
Empowerment, Education and Self-Care.....	20
Patient empowerment.....	20
Achieving empowerment.....	20
Patient education.....	20
Provision of education.....	21

Diabetes and Psychological Disorders.....
Clinical depression
Anxiety disorders.....
Eating disorders.....
Behavioral disorders.....
Psychological Challenges and Approaches to Diabetes Education.....
Emotional challenges.....
Physical challenges.....
External challenges.....
Strategies to help patients handle challenges.....
Focus on success.....
Psychological Challenges and Approaches to Diabetes Education.....
Psychological interventions.....
Evaluation of Diabetes Education.....
Self-monitoring and self-management.....

Part 6: Management of Nutrition and Physical Exercise.....

Dietary Management.....
Recommendations for dietary management
Meal patterns for patients on insulin.....
Multiple injection regimens.....
Physical Exercise.....

Part 7: Treatment with Oral Antidiabetic Agents

Classes of Oral Antidiabetic Agents.....
The Sulfonylureas.....
The Biguanides.....
The Thiazolidinediones (prosiglitazone, pioglitazone and others).....
The Meglitinides (repaglinide & nateglinide).....
Contraindications to the use of oral agents
Choice of oral agents.....
Primary or secondary failure of oral agents.....
Association of insulin with oral agents.....

Part 8: Insulin Therapy.....

Aims of Insulin Therapy.....
Recommendations for Insulin Therapy.....
General advice.....
Insulin regimens.....
Insulin dose.....
Insulin delivery devices.....
Injection sites.....
Injection technique.....
Insulin conservation.....
Special circumstances.....
Education for insulin therapy.....
Failure of insulin therapy.....

Hypoglycemia.....	44
Recommendations for the management of hypoglycemia	45
Diagnosis of hypoglycemia.....	45
Management of hypoglycemia	45
Special Problems Related to the Management of Hypoglycemia in Patients with Type I Diabetes.....	46
Hypoglycemia unawareness.....	46
Nocturnal hypoglycemia.....	46
Part 9: Management of Chronic Complications of Diabetes.....	47
Renal Disease and Hypertension.....	47
Screening and diagnosis.....	47
Management of hypertension / microalbuminuria.....	48
Other management of renal disease.....	48
Diabetic Retinopathy.....	49
Diagnosis and screening.....	49
Management of diabetic eye disease.....	50
Diabetic Nerve Damage.....	51
Diagnosis and screening.....	51
Management of diabetic nerve damage.....	51
Foot Problems.....	52
Foot management guidelines.....	52
Patient education.....	53
Surveillance.....	53
Part 10: Special Management Problems.....	55
Dyslipidemia and Diabetes.....	55
Rationale.....	55
Treatment goals.....	55
Treatment.....	55
Pharmacopea.....	56
Cardio-Vascular Diseases and Diabetes.....	56
Clinical evaluation.....	57
Management of clinical CVD.....	58
Detection of clinical and subclinical CVD.....	58
Gestational Diabetes.....	59
Diagnosis.....	60
Management.....	60
Pregnancy in Diabetic Women.....	61
Management recommendations.....	61
Obstetric care.....	62
Contraception.....	63
Part 11: Hospital Admission Guidelines for Diabetes.....	64
Bedside Blood Glucose Monitoring in Hospitals.....	64
Management of Patients During Surgery.....	65
Management guidelines.....	65

Guidelines for the Management of Ketoacidosis in Adult Diabetic Patients
Management guidelines.....	
Pancreas Transplantation in Patients with Diabetes	
Islet Cell Transplant in Diabetes	

Part 12: Living with Diabetes.....

Provision of equipment for patient self-care.....	
Employment.....	
Insurance.....	
Driving license.....	
Traveling.....	

Part 13: Diabetes in Children and Adolescents.....

Introduction	
Diabetes in Children and Adolescents	
Recommendations for self-monitoring.....	

Part 14: Useful Literature.....

Part 15: Presentation and Phases of Diabetes.....

Prediabetes	
Definition.....	
Immunological markers.....	
Genetic markers.....	
Examples of genetic markers conferring increased risk.....	
Insulin secretion.....	
Presentation	
Additional clinical presentations.....	
Diagnostic difficulties at onset.....	
Partial Remission Phase	
Definition.....	
Permanent Total Insulin Dependency	

Part 16: Diabetes Education.....

Education by Age Groups	
Infants and toddlers.....	
School age children.....	
Adolescents.....	

Part 17: Outpatient Management Ambulatory Care.....

Essential members of the multidisciplinary diabetes care team.....	
General aims of the diabetes care team	
The specific aims of the diabetes care team	

Generally accepted good clinical practice for the successful management of children and adolescents.....	80
Transition to Adult Clinics.....	81
Record-Keeping, Audit, Quality Assurance and Information Services.....	82
Out of clinics activities.....	82
Record keeping.....	82
Part 18: Nutritional Management.....	84
Aims of Nutritional Management.....	84
Nutritional Support, Education and Advice.....	85
Main Nutritional Recommendations.....	86
Special Groups, Events and Problems.....	87
Infants and toddlers.....	87
School children.....	87
Adolescents.....	87
Parties, festivities and special events.....	88
Education, Training, Audit and Research.....	88
Part 19: Diabetes Ketoacidosis.....	89
Definition.....	90
Emergency Assessment.....	90
Confirming the diagnosis.....	90
Immediate investigation.....	91
Resuscitation.....	92
Clinical Observation and Monitoring.....	92
Rehydration and Insulin Management.....	93
Fluids.....	93
Oral Fluids.....	94
Potassium.....	94
Insulin.....	94
Bicarbonate.....	95
Monitoring Progress.....	96
Capillary BG.....	96
Laboratory tests.....	96
Sodium and osmolality.....	96
Potassium.....	96
Urine output.....	96
Complications.....	97
Cerebral edema.....	97
Action.....	97
Hypoglycemia and hypokalemia.....	98
Aspiration pneumonia.....	98
Other associations with DKA.....	98
Transition to SC insulin injections.....	98
Recurrent DKA.....	98

Part 20: Hypoglycemia.....

Definition.....
Grading of Severity.....
Predisposing Factors.....
Consequences.....
Brain dysfunction.....
Nocturnal hypoglycemia.....
Exercise and Hypoglycemia
Light or brief exercise.....
Intensive, strenuous prolonged exercise.....
High risk and /or high-activity exercise or sport when hypoglycemia would be potentially dangerous.....
Prevention.....
Treatment.....
Nursery, School and College.....

Part 21: Adolescence.....

Optimal Care of the Adolescent with Diabetes.....
Pre-Pregnancy Counseling.....
Alcohol, Smoking, Drugs.....
Employment.....

Part 22: Associated Conditions and other Complications.....

Growth and Development.....
Autoimmune Disorders.....
Risk factors for the development of associated autoimmune disorders.....
Celiac Disease.....
Immunological tests.....
Definitive diagnosis.....
Treatment
Screening.....

Part 23: Management of Children with Diabetes Requiring Surgery Fasting.....

Elective Surgery.....
Evening prior to surgery.....
Morning operations.....
Afternoon operations.....
Emergency Surgery.....
Minor procedures requiring fasting.....