

Indian Council of Medical Research

Guidelines for Management of Type 2 Diabetes



Indian Council of Medical Research,
New Delhi-110 029

2005

Indian Council of Medical Research

**Guidelines
for
Management of Type 2 Diabetes**

Prepared as an outcome of ICMR-WHO Workshop on
“Guidelines for the Management of Type 2 Diabetes”,
2nd-4th May, 2003,
Chennai



Indian Council of Medical Research, Ansari Nagar,
New Delhi-110 029

2005

**ICMR-WHO Workshop on “Guidelines for the Management of Type 2 Diabetes”,
2nd-4th May, 2003, Chennai.**

Convenor

Dr. Bela Shah
Senior Deputy Director General,
Division of Non-Communicable Diseases,
Indian Council of Medical Research,
New Delhi

Co-ordinators

Dr. Rakesh Mittal
Deputy Director General (SG)
Division of Reproductive Health & Nutrition,
Indian Council of Medical Research,
New Delhi

Dr. Tanvir Kaur
Senior Research Officer,
Division of Non Communicable
Diseases,
Indian Council of Medical Research,
New Delhi

Scientific Advisory Committee

Dr. AK Das
Director,
Indian Institute of Diabetes,
In Public Health Centre,
Trivandarum.

Dr. Cherian Verghese
National Professional Officer
WHO Office (WR-India)
535, A-Wing,
Nirman Bhawan
New Delhi

Dr. KM Prasanna Kumar
MS Ramaiah Hospital
Department of Endocrinology and
Metabolism,
MSRIT Post,
Bangalore

Dr. NK Mehra
Professor and Head
Department of Transplant Immunology &
Immunogenetics,
All India Institute of Medical Sciences,
New Delhi

Dr. Nikhil Tandon
Additional Professor
Department of Endocrinology,
All India Institute of Medical Sciences,
New Delhi

Dr. V Mohan
Director, M.V. Diabetes Specialists Centre and
Madras Diabetes Research Foundation
4, Conran Smith Road, Gopalapuram
Chennai

Indian Council of Medical Research

Guidelines for Management of Type 2 Diabetes-2005

Convenor

Dr. Nirmal Kumar Ganguly,
Director General,
Indian Council of Medical Research,
New Delhi

Principal Co-ordinator

Dr. Bela Shah,
Sr DDG and Chief,
Division of Non-Communicable Diseases,
Indian Council of Medical Research,
New Delhi

Co-ordinators

Dr. Rakesh Mittal
Deputy Director General (SG)
Division of Reproductive Health & Nutrition,
Indian Council of Medical Research,
New Delhi

Dr. Tanvir Kaur
Senior Research Officer,
Division of Non-Communicable Diseases,
Indian Council of Medical Research,
New Delhi

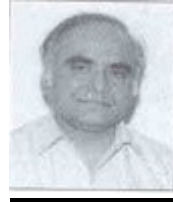
Indian Council of Medical Research

Guidelines for Management of Type 2 Diabetes-2005

Peer Reviewers

A Murughanaathan	A Ramachandran	A Sundaram
AC Ammini	Ajit Mukherjee	AK Das
Anant Nigam	Anil Kapur	Arul Raj
Bela Shah	BK Sahay	BK Tiwari
Cherian Verghese	CV Krishnaswami	D Bhardwaj
DK Shukla	Ezhil Arasan	GR Chandak
GR Sridhar	HB Chandalia	HK Tewari
J Leowski	K Ghosh	KM Prasanna Kumar
Latha Nitayanad	LM Nath	MD Gupte
MG Karmarkar	Mihir Saikia	MK Garg
MRS Rao	MS Sheshadri	N Kochupillai
Nasreen Ehtesham	Nikhil Tandon	NC Saxena
NK Ganguly	NK Mehra	PK Bhattacharya
PP Majumdar	Padam Singh	Prem Pais
PV Rao	OP Gupta	Rakesh Mittal
Rekha Sharma	Rema Mohan	RS Hariharan
S. Krishnaswamy	Sanjay K. Agarwal	Sharad Pendsey
Shashank Joshi	Shubankar Bannerjee	Siddhartha Das
Sudha Vasudevan	SV Madhu	Tanvir Kaur
TC Raghu Ram	Usha Sriram	V Mohan
V Muthuswamy	V Sessaiah	

Foreword



Diabetes mellitus is a group of metabolic diseases characterized by hyperglycemia resulting from defects in insulin secretion, insulin action or both. The chronic hyperglycemia of diabetes is associated with long term damage, dysfunction, and failure of various organs especially the eyes, kidneys, nerves, heart and blood vessels.

Diabetes mellitus is growing at an alarming rate all over the world particularly in India. It is estimated that there are currently 32 million people with diabetes in India which is projected to increase by 80 million in the year 2030. The care and management of people with diabetes mellitus is done primarily by the general practitioners and physicians. However, there are no clear directions or Guidelines for its management. A need for availability of a set of Guidelines which can be used by doctors all over the country was a strong felt. With this in view, the Indian Council of Medical Research (ICMR) and the World Health Organization (WHO) convened a workshop wherein experts drawn from different parts of India participated. The meeting was held at Chennai from 2nd to 4th May 2003 and aimed to develop specific guidelines for screening, monitoring, diagnosis and life style modification like diet and exercise, oral hypoglycemic agents, insulin, treatment for diabetic complications and addressing of special situations like diabetic retinopathy. This document is the result of the Group's deliberations. The guidelines were further ratified by circulation to extended group of researchers and practitioners drawn from all over the country.

It is hoped that these guidelines will help the practising doctors to treat diabetes at the primary health care level and thus help the people with diabetes to lead a normal and healthy life.

Prof N.K.Ganguly
Director General

Preface



The emergence of chronic diseases like diabetes has necessitated the development of consensus amongst health care delivery personnel for appropriate management. This document is a joint effort of the assistance and co-operation of many institutions. The suggestions and advice emerging from the workshop sponsored by the World Health Organization entitled, “ Guidelines for the Management of Diabetes Mellitus,” held on 2nd-4th May 2003 at Chennai, were of great value. The Council is particularly grateful to the participants of the workshop for their initiative, professional and consistent interest for guidelines.

The Council gratefully acknowledges the technical and financial assistance of the World Health Organization. Thanks are due to Dr. C. Varghese, National Programme Officer, WHO and Dr. J.R. Leowski, Regional Advisor, WHO for their time to time advice and guidance. The Council appreciatively acknowledges the valuable contribution of the members of the Scientific Advisory Committee for extending their support in formulating these guidelines.

(Bela Shah)