Guidelines for the programmatic management of drug-resistant tuberculosis



This guideline was developed in compliance with the process for evidence gathering, assessment and formulation of recommendations, as outlined in the WHO Handbook for Guideline Development (version March 2010; available at www.who.int/hiv/topics/mtct/grc_handbook_mar2010_1.pdf).

First edition, 2006 Emergency update, 2008 2011 update

WHO Library Cataloguing-in-Publication Data

Guidelines for the programmatic management of drug-resistant tuberculosis – 2011 update.

1. Tuberculosis, Multidrug-resistant – drug therapy. 2. Tuberculosis, Multidrug-resistant – prevention and control. 3. Antitubercular agents – administration and dosage. 4. HIV infections – drug therapy. 5. Antiretroviral therapy, Highly active. 6. Guidelines. I. World Health Organization.

ISBN 978 92 4 150158 3

(NLM classification: WF 310)

© World Health Organization 2011

All rights reserved. Publications of the World Health Organization are available on the WHO web site (www.who.int) or can be purchased from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857; e-mail: bookorders@who.int).

Requests for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – should be addressed to WHO Press through the WHO web site (http://www.who.int/about/licensing/copyright_form/en/index.html).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

Printed by the WHO Document Production Services, Geneva, Switzerland.

WHO/HTM/TB/2011.6

Design by Inís Communication - www.iniscommunication.com

Guidelines for the programmatic management of drug-resistant tuberculosis

2011 update



Contents

| Abbreviations | i |
|---|----|
| Acknowledgements | ii |
| Executive summary | 1 |
| Funding and declarations of interest | 2 |
| Objectives of the guidelines and target audience | 2 |
| Background and methods | 3 |
| 1. Rapid drug susceptibility testing for early start of appropriate treatment | 11 |
| 2. Monitoring the response to MDR-TB treatment | 14 |
| 3. Composition of second-line anti-tuberculosis regimens | 16 |
| 4. Duration of second-line anti-tuberculosis regimens | 21 |
| 5. Use of antiretrovirals in patients on second-line anti-tuberculosis regimens | 24 |
| 6. Models of care for managing MDR-TB | 26 |
| Research gaps | 28 |
| Annex 1. Methods for evidence reviews and modelling | 29 |
| Annex 2. GRADE glossary and summary of evidence tables | 29 |
| Annex 3. Potentially overlapping toxicities of antiretrovirals and | |
| anti-tuberculosis agents (including first-line TB drugs) | 29 |
| References | 30 |

Abbreviations

| ART | antiretroviral therapy |
|--------|---|
| DALY | disability-adjusted life year |
| CDC | United States Centers for Disease Control and Prevention |
| DR-TB | drug-resistant tuberculosis |
| DST | drug susceptibility testing |
| GRADE | Grading of Recommendations Assessment, Development and Evaluation |
| HIV | human immunodeficiency virus |
| MDR-TB | multidrug-resistant tuberculosis |
| NTP | national tuberculosis control programme |
| PMDT | programmatic management of drug-resistant tuberculosis |
| SAE | serious adverse event |
| ТВ | tuberculosis |
| UNION | International Union Against Tuberculosis and Lung Disease |
| USAID | United States Agency for International Development |
| WHA | World Health Assembly |
| WHO | World Health Organization |
| XDR-TB | extensively drug-resistant tuberculosis |

Acknowledgements

This 2011 update of *Guidelines for the programmatic management of drug-resistant tuberculosis* was coordinated by Dennis Falzon under the guidance of Ernesto Jaramillo and Léopold Blanc of the World Health Organization's Stop TB Department. The contribution of the following experts and technical groups is gratefully acknowledged.

Guideline Development Group (area of expertise shown in parentheses)

Jaime Bayona, Socios En Salud Sucursal, Peru (programme management, public health)

José A. Caminero, University General Hospital of Gran Canaria, Spain and The UNION, Paris, France (clinical practice)

Charles L. Daley, National Jewish Health, United States (clinical practice)

Agnes Gebhard, KNCV Tuberculosis Foundation, Netherlands (programme management)

Myriam Henkens, Médecins Sans Frontières, France (programme management)

Timothy H. Holtz, HIV/STD Research Program, United States Centers for Disease Control and Prevention–CDC, Asia Regional Office, Thailand (epidemiology, surveillance, programme evaluation)

Joël Keravec, Management Sciences for Health, Brazil (drug management)

Salmaan Keshavjee, Harvard Medical School, United States (programme management, public health)

Aamir J. Khan, Indus Hospital TB Program, Pakistan (epidemiology, programme management)

Vaira Leimane, State Infectology Center, Clinic of Tuberculosis and Lung Diseases, Latvia (programme management, clinical practice)

Andrey Mariandyshev, Northern State Medical University, Archangelsk, Russian Federation (clinical practice)

Carole D. Mitnick, Harvard Medical School, United States (epidemiology, programme support)

Gloria Nwagboniwe, Alliance for Hope, Nigeria (civil society)

Domingo Palmero, Pulmonology Division, Hospital Muñiz, Argentina (clinical practice)

Ma. Imelda Quelapio, Tropical Disease Foundation, Philippines (programme management)

Michael L. Rich, Partners In Health, United States (clinical practice)

Sarah Royce, PATH, United States (surveillance, public health)

Sabine Rüsch-Gerdes, National Reference Centre for Mycobacteria, Germany (laboratory specialist)

Archil Salakaia, Management Sciences for Health, United States (programme management)

Rohit Sarin, LRS Institute of TB and Allied Diseases, India (clinical practice)

Holger Schünemann, McMaster University, Canada (Chairman of the Guideline Development Group; epidemiology, guideline methodology)

Elena Skachkova, Federal Centre of TB Monitoring, Russian Federation (surveillance)

Francis Varaine, Médecins Sans Frontières, France (clinical and programme management)

WHO headquarters, Geneva, Switzerland (members of the Guideline Development Group shown in italics)

Stop TB Department: Léopold Blanc, *Dennis Falzon*^a, Christopher Fitzpatrick, Katherine Floyd, *Haileyesus Getahun*^a, Malgorzata Grzemska^a, Christian Gunneberg^a, *Ernesto Jaramillo*^a, *Christian Lienhardt*, *Fuad Mirzayev*, Paul Nunn, Mario C. Raviglione, *Delphine Sculier*^a, *Fraser Wares, Karin Weyer, Matteo Zignol*^a

HIV Department: Chris Duncombe, Marco Antonio de Avila Vitoria^a

^a Member of the WHO Guideline Steering Group.

External Review Group (area of expertise shown in parentheses for non-WHO staff)

Samiha Baghdadi, WHO Regional Office for the Eastern Mediterranean, Egypt

Mercedes Becerra, Harvard Medical School, United States (academia)

Vineet Bhatia, WHO Regional Office for South-East Asia, India

Masoud Dara, WHO Regional Office for Europe, Denmark

Mirtha del Granado, WHO Regional Office for the Americas, United States

Reuben Granich, WHO HIV Department, Switzerland

Lindiwe Mvusi, Department of Health, South Africa (programme management)

Nani Nair, WHO Regional Office for South-East Asia, India

Norbert Ndjeka, Department of Health, South Africa (programme management, clinical practice)

Wilfred A.C Nkhoma, WHO Regional Office for Africa, Zimbabwe

Katsunori Osuga, WHO Regional Office for the Western Pacific, Philippines

iii

Hendrik Simon Schaaf, Department of Paediatrics and Child Health, Stellenbosch University and Tygerberg Children's Hospital, South Africa (clinical practice, paediatric MDR-TB, surveillance)

Catharina van Weezenbeek, WHO Regional Office for the Western Pacific, Philippines

Irina Vasilyeva, Central TB Research Institute of RAMS, Russian Federation (research, clinical practice)

Wang Xie Xiu, Tianjin Centers for Disease Control and Prevention, China (surveillance)

Richard Zaleskis, WHO Regional Office for Europe, Denmark

Evidence review teams

Chunling Lu, Carole D. Mitnick–Harvard Medical School, Boston, Massachusetts, United States and Richard A. White–Harvard School of Public Health, Boston, Massachusetts, United States

Gail Kennedy, George Rutherford, Karen Steingart–University of California (San Francisco), California, United States

Matthew Arentz, David Horne, Patricia Pavlinac, Judd L. Walson–University of Washington, Seattle, Washington, United States

Melissa Bauer, Richard (Dick) Menzies, Olivia Oxlade–McGill University, Montreal, Quebec, Canada

Consultant: Patricia Whyte, Griffith University, Queensland, Australia (guideline development)

The development and publication of the 2011 update of these guidelines was supported by the generous financial contribution of the United States Agency For International Development (USAID)

预览已结束, 完整报告链接和二维码如下:



https://www.yunbaogao.cn/report/index/report?reportId=5 28824