

GUIDELINE:

**PREVENTIVE CHEMOTHERAPY
TO CONTROL SOIL-TRANSMITTED
HELMINTH INFECTIONS IN
AT-RISK POPULATION GROUPS**



2017



**World Health
Organization**

GUIDELINE:

PREVENTIVE CHEMOTHERAPY TO CONTROL SOIL-TRANSMITTED HELMINTH INFECTIONS IN AT-RISK POPULATION GROUPS



**World Health
Organization**

WHO Library Cataloguing-in-Publication Data

Guideline: preventive chemotherapy to control soil-transmitted helminth infections in at-risk population groups

ISBN 978-92-4-155011-6

© World Health Organization 2017

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization.

Suggested citation. Guideline: preventive chemotherapy to control soil-transmitted helminth infections in at-risk population groups. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at <http://apps.who.int/iris>.

Sales, rights and licensing. To purchase WHO publications, see <http://apps.who.int/bookorders>. To submit requests for commercial use and queries on rights and licensing, see <http://www.who.int/about/licensing>.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. 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 WHO 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 and dashed 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 WHO 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 WHO 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 WHO be liable for damages arising from its use.

Photo credit (front cover): Frederic Noy

Cover design and layout: Alberto March (Barcelona, Spain)

CONTENTS

PUBLICATION HISTORY	IX
ACKNOWLEDGEMENTS	IX
Financial support	X
GLOSSARY	XI
EXECUTIVE SUMMARY	1
Purpose of the guideline	1
Guideline development methodology	2
Available evidence	2
Recommendations	3
Rationale	4
Remarks	4
Research gaps	5
Plans for updating the guideline	5
INTRODUCTION	6
Objectives	6
Scope	6
Population of interest	6
Key questions	7
Outcomes of interest	7
Target audience	8
BACKGROUND	9
Soil-transmitted helminth infections	9
Burden of the disease	9
Morbidity caused by soil-transmitted helminth infections	9
Overall evidence on morbidity due to soil-transmitted helminth infections	11
Efficacy of deworming medicines	12
Safety of deworming medicines	12
Cost of delivering deworming medicines	13
Current strategies to reduce soil-transmitted helminth infections	13
EVIDENCE AND RECOMMENDATIONS	15
Effects and safety of preventive chemotherapy in preschool and school-age children	15
Effects and safety of preventive chemotherapy in non-pregnant adolescent girls and women of reproductive age	22
Effects and safety of preventive chemotherapy in pregnant women	27
Effects and safety of preventive chemotherapy in the context of HIV infection	32
IMPLEMENTATION OF THE GUIDELINE	33
Implementation considerations	33
Regulatory considerations	34
Ethical and equity considerations	35
Monitoring and evaluation of guideline implementation	35

RESEARCH GAPS	36
GUIDELINE DEVELOPMENT PROCESS	37
WHO steering group	37
Guideline development groups	38
External resource groups	38
Systematic review teams	38
Management of conflicts of interests	38
Identification of priority questions and outcomes	40
Evidence identification and retrieval	40
Quality assessment and grading of evidence	41
Formulation of recommendations	41
Decision-making during the guideline development group meeting	42
Document preparation and peer review	43
DISSEMINATION AND PLANS FOR UPDATING	43
Dissemination	43
Plans for updating the guideline	43
REFERENCES	44
ANNEX 1. QUESTION IN POPULATION, INTERVENTION, CONTROL, OUTCOMES (PICO) FORMAT	52
A. Effects and safety of preventive chemotherapy in young children, preschool and school-age children	52
B. Effects and safety of preventive chemotherapy in non-pregnant adolescent girls and women of reproductive age	53
C. Effects and safety of preventive chemotherapy in pregnant women	54
ANNEX 2. GRADE SUMMARY OF FINDINGS TABLES	55
A. Preventive chemotherapy in preschool and school-age children	55
B. Preventive chemotherapy in non-pregnant adolescent girls and women of reproductive age	59
C. Preventive chemotherapy in pregnant women	60
ANNEX 3. LOGIC MODEL FOR THE CONTROL OF SOIL-TRANSMITTED HELMINTH INFECTIONS	61
ANNEX 4. WHO STEERING GROUP	62
ANNEX 5. WHO GUIDELINE DEVELOPMENT GROUPS	63
Guideline development group – nutrition actions 2013–2014	63
Guideline development group – deworming	67
ANNEX 6. EXTERNAL RESOURCE GROUPS	70
Meeting of the WHO guideline development group – nutrition actions 2013–2014	70
Meeting of the WHO guideline development group – deworming	71
ANNEX 7. SYSTEMATIC REVIEW TEAMS	72
ANNEX 8. PEER-REVIEWERS	73
ANNEX 9. WHO SECRETARIAT	74

PUBLICATION HISTORY

This guideline on *Preventive chemotherapy to control soil-transmitted helminth infections in at-risk population groups* updates and supersedes previous recommendations contained in the World Health Organization (WHO) publication [*Preventive chemotherapy in human helminthiasis: coordinated use of anthelmintic drugs in control interventions: a manual for health professionals and programme managers*](#), which was reviewed at the Informal Consultation on Preventive Chemotherapy in Human Helminthiasis (Geneva, March 2006), and complements some of the operational guidance of [*Helminth control in school-age children: a guide for managers of control programmes*](#), published by WHO in 2011.

In order to produce this guideline, the rigorous procedures described in the [*WHO handbook for guideline development*](#) were followed. This document presents the evidence that served to inform the recommendations contained herein, and provides expanded sections on dissemination as well as on ethical and equity considerations, summarized in the most recent reviews on these topics.

ACKNOWLEDGEMENTS

This guideline was coordinated by WHO's Evidence and Programme Guidance unit, Department of Nutrition for Health and Development and the Preventive Chemotherapy and Transmission Control unit, Department of Control of Neglected Tropical Diseases. Dr Antonio Montresor, Dr Juan Pablo Peña-Rosas and Dr Pura Rayco-Solon coordinated the preparation of this document. Dr Serene Joseph and Ms Elizabeth Centeno Tablante contributed technical work throughout the process.

WHO acknowledges the technical guidance provided by the members of the WHO steering committee for this normative work, namely: Dr Shannon Barkley (Department of Service Delivery and Safety), Dr Sophie Boisson (Department of Public Health, Environment and Social Determinants), Dr Lorenzo Moja (Department of Essential Medicines and Health Products), Dr Antonio Montresor (Department of Control of Neglected Tropical Diseases), Dr Eyerusalem Kebede Negussie (Department of HIV/AIDS), Dr Piero Luigi Olliaro (Special Programme for Research and Training in Tropical Diseases), Dr Juan Pablo Peña-Rosas (Department of Nutrition for Health and Development), Dr Pura Rayco-Solon (Department of Nutrition for Health and Development) and Dr Özge Tuncalp (Department of Reproductive Health and Research).

We would also like to acknowledge the following individuals for their technical contributions to this guideline: Mr Filiberto Beltran Velasquez, Dr Noha Iessa, Dr Lisa Rogers, Ms Zita Weise Prinzo and Mr Gerardo Zamora. Dr Luz Maria De-Regil contributed to the scoping of this guideline, in preparation for the guideline development group meeting in 2013, during her time as a WHO staff member.

We would like to express our gratitude to Dr Susan Norris (WHO Guidelines Review Committee Secretariat) and members of the Guidelines Review Committee for their technical support throughout the process. Thanks are due also to Ms Alma Alic and Ms Marie Sabine Bombin (Department of Compliance and Risk Management and Ethics) for their support in managing the procedures for conflicts of interest. Ms Marie-Christine Jolly (Department of Nutrition for Health and Development) and Ms Marilyne Vonlanthen (Department of Control of Neglected Tropical Diseases) provided logistic support.

WHO gratefully acknowledges the technical input of the members of the WHO guideline development groups involved in this process, especially the chairs of the two meetings concerning this guideline: Dr Igor Veljkovic (2013) and Professor Beverley-Ann Biggs and Professor Malden Nesheim (2016). We thank the peer-reviewers: Dr Mary Christine Castro, Ms Patrizia Fracassi, Mr SM Mainul Islam, Ms Linda Brooke Schultz and Professor Rebecca Stoltzfus.

WHO is also grateful to the staff of the Campbell Collaboration, Cochrane HIV/AIDS Group, Cochrane Infectious Diseases Group and Cochrane Pregnancy and Childbirth Group for their support to authors in developing and updating the systematic reviews used to inform this guideline. We would like to specially thank Dr Marco Albonico, Ms Elizabeth Centeno, Dr Christopher Fitzpatrick, Dr Albis Francesco Gabrielli, Dr Noha Iessa, Dr Dina Jankovic, Dr Serene Aimee Joseph, Dr Felicia Oschmann, Dr Shanti Narayan Pal, Dr Lorenzo Savioli, and Dr Hugo C Turner for their support in conducting additional reviews to inform this guideline.

Financial support

WHO thanks the Bill & Melinda Gates Foundation for providing financial support for this work. Nutrition International (formerly Micronutrient Initiative) and the International Micronutrient Malnutrition Prevention and Control Program of the United States Centers for Disease Control and Prevention provided technical and financial support to the Evidence and Programme Guidance Unit, Department of Nutrition for Health and Development, for the commissioning of systematic reviews of nutrition interventions. Donors do not fund specific guidelines and do not participate in any decision related to the guideline development process, including the composition of research questions, membership of the guideline development groups, conduct and interpretation of systematic reviews, or formulation of recommendations.

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_26623

