WHO recommendations on drug treatment for non-severe hypertension in pregnancy











WHO recommendations on drug treatment for non-severe hypertension in pregnancy





WHO recommendations on drug treatment for non-severe hypertension in pregnancy

ISBN 978-92-4-000879-3 (electronic version) ISBN 978-92-4-000880-9 (print version)

© World Health Organization 2020

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 (http://www.wipo.int/amc/en/mediation/rules/).

Suggested citation. WHO recommendations on drug treatment for non-severe hypertension in pregnancy. Geneva: World Health Organization; 2020. 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.

Contents

Acknowledgements	İ۷
Acronyms and abbreviations	V
Executive Summary	1
1. Background	4
2. Methods	5
3. Recommendations and supporting evidence	13
4. Dissemination and implementation of the recommendations	14
5. Research implications	15
6. Applicability issues	16
7. Updating the recommendations	16
Annex 1. External experts and WHO staff involved in the preparation of the guideline	17
Annex 2. Priority outcomes for decision-making	21
Annex 3. Summary and management of declared interests from GDG and External	
Review Group members	22
Annex 4. Evidence-to-decision framework	24
References	42
GRADE tables	44

Acknowledgements

The Department of Sexual and Reproductive Health and Research, and the Department of Maternal, Newborn, Child and Adolescent Health and Ageing of the World Health Organization (WHO) gratefully acknowledge the contributions of many individuals and organizations to the updating of this recommendation. Work on this update was co-ordinated by Joshua Vogel, Abiodun Adanikin and Olufemi Oladapo of the WHO Department of Sexual and Reproductive Health and Research.

WHO extends its sincere thanks to Ebun Adejuyigbe, Shabina Ariff, Jemima Dennis-Antwi, Luz Maria De-Regil, Christine East, Lynn Freedman, Pisake Lumbiganon, Anita Maepioh, Shireen Meher, James Neilson, Hiromi Obara, Cristina Palacios, Rachel Plachcinski, Zahida Qureshi, Kathleen Rasmussen, Niveen Abu Rmeileh and Eleni Tsigas who served as members of the Guideline Development Group (GDG), and to Zahida Qureshi (Chair) and Jim Neilson (Vice-Chair) for leading the meeting. We also thank Caroline Homer, Hadiza Galadanci, Jashodhara Gupta, Jack Moodley, M Jeeva Sankar, Shakila Thangaratinam, Saraswathi Vedam and Hayfaa Wahabi who were members of the External Review Group. WHO also gratefully acknowledges the contribution of the members of the Executive Guideline Steering Group.

Leanne Jones, Frances Kellie and Myfanwy Williams reviewed the scientific evidence, prepared the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) tables and drafted the narrative summary of evidence. Joshua Vogel, Abiodun Adanikin and Olufemi Oladapo revised the narrative summaries and double-checked the corresponding GRADE tables and prepared the evidence-to-decision (EtD) frameworks. Abiodun Adanikin, Fernando Althabe, Ana Pilar Betrán, Mercedes Bonet, Maurice Bucagu, Fran McConville, Olufemi Oladapo, Anayda Portela, Özge Tunçalp and Joshua Vogel commented on a preliminary draft document before discussions and deliberations by the WHO GDG members. The External Review Group peer reviewed the final document prior to executive clearance by WHO and publication.

We acknowledge the various organizations that were represented by observers, including Deborah Armbruster and Mary-Ellen Stanton (United States Agency for International Development), Kathleen Hill (Maternal and Child Survival Program/Jhpiego), Jeff Smith (Bill & Melinda Gates Foundation), Ingela Wiklund (International Confederation of Midwives), Gerard Visser (International Federation of Gynaecology and Obstetrics) and Charlotte Warren (Ending Eclampsia Project, Population Council). We also appreciate the contributions of WHO Regional Offices' staff – Nino Berdzuli, Bremen De Mucio, Chandani Anoma Jayathilaka, Ramez Khairi Mahaini, Léopold Ouedraogo, Howard Sobel and Claudio Sosa.

WHO acknowledges the financial support for this work received from the United States Agency for International Development, the Bill & Melinda Gates Foundation and the Department of Sexual and Reproductive Health and Research. WHO emphasizes that donors do not participate in any decision related to the guideline development process, including the composition of research questions, membership of the guideline development groups, conducting and interpretation of systematic reviews, or formulation of the recommendations. The views of the funding bodies have not influenced the content of this recommendation.

Acronyms and abbreviations

ANC antenatal care

BMGF Bill & Melinda Gates Foundation

CI confidence interval
CS Caesarean section
DOI Declaration of Interest

FHR fetal heart rate

FIGO International Federation of Gynaecology and Obstetrics
FWC Family, Women's and Children's Health (a WHO cluster)

GDG Guideline Development Group
GRC Guideline Review Committee

GRADE Grading of Recommendations Assessment, Development and Evaluation

GREAT Guideline development, Research priorities, Evidence synthesis, Applicability of

evidence, Transfer of knowledge (a WHO project)

GSG Executive Guideline Steering Group

HELLP haemolysis, elevated liver enzymes, low platelet

ICM International Confederation of Midwives

LMIC low- and middle-income countries

MCA [WHO Department of] Maternal, Newborn, Child and Adolescent Health

and Ageing

MCSP Maternal and Child Survival Programme

MPH Maternal and Perinatal Health (a team in WHO's Department of Sexual and

Reproductive Health and Research)

NNT number needed to treat

PICO Population (P), Intervention (I), Comparison (C), Outcome (O)

RR relative risk

SDG Sustainable Development Goals

SRH [WHO Department of] Sexual and Reproductive Health and Research

UN United Nations

UNFPA United Nations Population Fund

USAID United States Agency for International Development

WHO World Health Organization





https://www.yunbaogao.cn/report/index/report?reportId=5_24442



