

A vertical strip on the left side of the cover features a microscopic image of tissue layers, showing various cellular structures and blood vessels in shades of orange and yellow.

WHO recommendations **Uterotonics for the prevention of postpartum haemorrhage**



World Health
Organization

WHO recommendations
**Uterotonics for the prevention of
postpartum haemorrhage**



World Health
Organization

WHO recommendations: uterotonics for the prevention of postpartum haemorrhage

ISBN 978-92-4-155042-0

© **World Health Organization 2018**

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. WHO recommendations: uterotonics for the prevention of postpartum haemorrhage. Geneva: World Health Organization; 2018. 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	v
Acronyms and abbreviations	vi
Executive summary	vii
Introduction	vii
Target audience	vii
Guideline development methods	vii
Recommendations	viii
1. Introduction	1
1.1 Background	1
1.2 Aim	2
1.3 Target audience	2
1.4 Scope of the recommendations	2
2. Methods	6
2.1 Executive Guideline Steering Group (2017–2019)	6
2.2 WHO Steering Group	6
2.3 Guideline Development Group (GDG)	6
2.4 Evidence Synthesis Group (ESG)	6
2.5 Observers	7
2.6 External Review Group (ERG)	7
2.7 Identification of priority questions and outcomes	7
2.8 Evidence identification and retrieval	8
2.9 Quality assessment and grading of the evidence	10
2.10 Formulation of recommendations	11
2.11 Decision-making during the GDG meetings	13
2.12 Management of declarations of interests	13
2.13 Document preparation and peer review	14
3. Recommendations and supporting evidence	15
3.1 Guiding principles	15
3.2 Recommendations	16
4. Dissemination and implementation of the recommendations	25
4.1 Dissemination and evaluation	25
4.2 Implementation considerations	26
5. Research implications	27
6. Applicability issues	28
6.1 Anticipated impact on the organization of care and resources	28
6.2 Monitoring and evaluating guideline implementation	28
7. Updating the recommendations	29
8. References	30

Annex 1. External experts and WHO staff involved in the preparation of the recommendations	35
Annex 2. Priority outcomes used in decision-making	39
Annex 3. Summary and management of declared interests from GDG members	40
Web annexes. GRADE Evidence to Decision frameworks and Summary of Findings tables	43

Acknowledgements

The World Health Organization (WHO) gratefully acknowledges the contributions of many individuals and organizations to the updating of these recommendations. Work on this update was initiated and coordinated by Olufemi Oladapo and Joshua Vogel of the WHO Department of Reproductive Health and Research. Fernando Althabe, Olufemi Oladapo, Özge Tunçalp and Joshua Vogel of the WHO Department of Reproductive Health and Research and Maurice Bucagu and Nathalie Roos of the WHO Department of Maternal, Newborn, Child and Adolescent Health, were members of the WHO Steering Group, which managed the guideline updating process. Nino Berdzuli, Paata Chikvaidze, Bremen De Mucio, Hayfa Elamin, Fatu Forna, Nilmini Hemachandra, Chandani Anoma Jayathilaka, Ramez Khairi Mahaini, Lamia Mahmoud, Léopold Ouedraogo, Howard Sobel, Claudio Sosa, Meera Thapa Upadhyay and Souleymane Zan were WHO regional and country office staff members who contributed to the technical consultations.

WHO extends its sincere thanks to Oluwarotimi Ireti Akinola, Shubha Allard, Melania Maria Ramos de Amorim, Brendan Carvalho, Catherine Deneux-Tharaux, Sue Fawcus, Caroline Homer, Simon Lewin, Tippawan Liabsuetrakul, Anita Maepioh, Martin Meremikwu, Suellen Miller, Rintaro Mori, Hiromi Obara, Rachel Plachcinski, Hayfaa Wahabi and Dilys Walker who served as members of the Guideline Development Group (GDG), and to Ashraf Nabhan for chairing the technical consultations. We also thank Michel Boulvain, Jemima A. Dennis-Antwi, Vanora Hundley, Tamar Kabakian-Khasholian, Barbara Levy, Lawal O. Oyeneyin, Alison Wright and Qian Xu who were members of the External Review Group (ERG).

We appreciate the contributions of the members of the Executive Guideline Steering Group (GSG) during the scoping and prioritization exercise that took place as part of the guideline updating process. Special thanks are due to the authors of the Cochrane systematic reviews used in this update for their assistance and collaboration in updating them.

Edgardo Abalos, Mónica Chamillard, Virginia Diaz, Soo Downe, Kenneth Finlayson, Ioannis Gallos, Leanne Jones, Frances Kellie, Theresa Lawrie, Argyro Papadopoulou, Julia Pasquale and Myfanwy Williams were members of the Evidence Synthesis Group (ESG), who performed quality appraisal of the scientific evidence, and drafted the corresponding narrative evidence summaries and Evidence to Decision frameworks. Soo Downe, Kenneth Finlayson, Ioannis Gallos and Theresa Lawrie led the teams that conducted systematic reviews to inform the guideline. Joshua Vogel and Olufemi Oladapo double-checked the corresponding Summary of Findings tables and revised the narrative summaries and Evidence to Decision frameworks. Joshua Vogel and Olufemi Oladapo drafted the final guideline document before it was reviewed by other members of the WHO Steering Group and the GDG. The ERG peer reviewed the final document prior to clearance by WHO for publication.

We acknowledge the following observers at the technical consultations, who represented various organizations: Deborah Armbruster and Mary-Ellen Stanton (United States Agency for International Development [USAID]), Jeffrey Smith (Jhpiego), Jerker Liljestrand (Bill & Melinda Gates Foundation), Sally Tracy (International Confederation of Midwives [ICM]), Gerard Visser (International Federation of Gynaecology and Obstetrics [FIGO]) and Beverly Winikoff (Gynuity Health Projects).

This work was funded by USAID and the UNDP–UNFPA–UNICEF–WHO–World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP), a cosponsored programme executed by WHO. The views of the funding bodies have not influenced the content of these recommendations.

Editing: Green Ink, United Kingdom

Layout: minimum graphics, New Zealand

Acronyms and abbreviations

CERQual	Confidence in the Evidence from Reviews of Qualitative research
CREP	Centro Rosarino de Estudios Perinatales
DOI	declaration of interest
ERG	Evidence Review Group
ESG	Evidence Synthesis Group
EtD	Evidence to Decision
FIGO	International Federation of Gynecology and Obstetrics
GDG	Guideline Development Group
GRADE	Grading of Recommendations Assessment, Development and Evaluation
GSG	Guideline Steering Group
HRP	The UNDP–UNFPA–UNICEF–WHO–World Bank Special Programme of Research, Development and Research Training in Human Reproduction
ICM	International Confederation of Midwives
ICN	International Council of Nurses
IM	intramuscular
IPA	International Pediatric Association
IU	international units
IV	intravenous
µg	microgram
MNH	maternal and newborn health
PO	per os (orally)
PICO	population (P), intervention (I), comparator (C), outcome (O)
PPH	postpartum haemorrhage
SoF	Summary of Findings
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Executive summary

Introduction

Postpartum haemorrhage (PPH) is commonly defined as a blood loss of 500 ml or more within 24 hours after birth, and affects about 5% of all women giving birth around the world. Globally, nearly one quarter of all maternal deaths are associated with PPH, and in most low-income countries it is the main cause of maternal mortality. Improving care during childbirth to prevent PPH is a necessary step towards the achievement of the health targets of the third Sustainable Development Goal (SDG 3), particularly target 3.1: reduce the global maternal mortality ratio to less than 70 per 100 000 live births by 2030. Efforts to prevent and reduce morbidity and mortality due to PPH can help address the profound inequities in maternal and perinatal health globally. To achieve this, skilled health personnel, health managers, policy-makers and other stakeholders need up-to-date and evidence-informed recommendations to guide clinical policies and practices.

In 2017, an Executive Guideline Steering Group (GSG) for World Health Organization (WHO) maternal and perinatal health recommendations prioritized the updating of the existing WHO recommendations on the use of uterotonics for PPH prevention, in response to the availability of new evidence. The recommendations in this document thus supersede previous WHO recommendations on the use of uterotonics for PPH prevention as published in the 2012 guideline, *WHO recommendations for the prevention and treatment of postpartum haemorrhage*.

Target audience

The primary audience for these recommendations includes health professionals who are responsible for developing national and local health care guidelines and protocols (particularly those related to PPH prevention and treatment) and those involved in the provision of care to women and their newborns during labour and childbirth, including midwives, nurses, general medical practitioners and obstetricians, as well as managers of maternal and child health programmes, and relevant staff in ministries of health and training institutions, in all settings.

Guideline development methods

The updating of these recommendations was guided by standardized operating procedures in accordance with the process described in the *WHO handbook for guideline development*. The recommendations were initially developed and updated using the following process:

- i. identification of priority questions and outcomes;
- ii. retrieval of evidence;

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_25445

