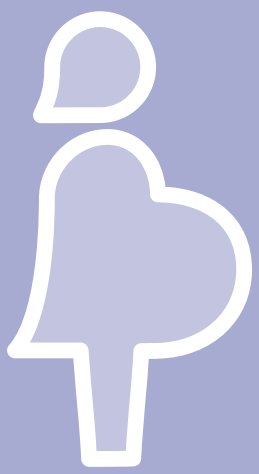
WHO recommendations

# Policy of interventionist versus expectant management of severe pre-eclampsia before term



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ISBN 978-92-4-155044-4



**Suggested citation.** WHO recommendations: policy of interventionist versus expectant management of severe pre-eclampsia before term. 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.

# Acknowledgements

The Department of Reproductive Health and Research of the World Health Organization gratefully acknowledges the contributions of many individuals and organizations to the updating of these recommendations. Work on this update was coordinated by Olufemi Oladapo, Joshua Vogel and A. Metin Gülmezoglu of the WHO Department of Reproductive Health and Research.

WHO extends its sincere thanks to Edgardo Abalos, Ebun Adejuyigbe, Shabina Ariff, Jemima Dennis-Antwi, Luz Maria De-Regil, Christine East, Lynn Freedman, Pisake Lumbiganon, Anita Maepioh, James Neilson, Hiromi Obara, 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 chairing the meeting. We also thank José Guilherme Cecatti, Sylvia Deganus, M Jeeva Sankar, Hayfaa Wahabi, Jack Moodley, Jane Sandall, Ola Shaker and Nguyen Xuan Hoi who were members of the External Review Group. WHO also gratefully acknowledges the contribution of the members of the Executive Guideline Steering Group.

Anna Cuthbert, 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 and Olufemi Oladapo revised the narrative summaries and double-checked the corresponding GRADE tables and prepared the Evidence-to-Decision frameworks. Joshua Vogel, Olufemi Oladapo, A. Metin Gülmezoglu, Ana Pilar Betran, Özge Tuncalp and Mercedes Bonet commented on the draft document before it was reviewed by participants at the WHO Guideline Development Group meeting. The External Review Group peer reviewed the final document.

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), Jerker Liljestrand (Bill & Melinda Gates Foundation), Lesley Page (International Confederation of Midwives), Gerard Visser (International Federation of Gynaecology and Obstetrics) and Charlotte Warren (Ending Eclampsia Project, Population Council). We appreciate the contributions of WHO Regional Office staff – Nino Berdzuli, Bremen De Mucio, Chandani Anoma Jayathilaka, Ramez Khairi Mahaini, Léopold Ouedraogo and Howard Sobel.

The United States Agency for International Development and the Department of Reproductive Health and Research provided financial support for this work. The views of the funding bodies have not influenced the content of these recommendations.

# Acronyms and abbreviations

| | |
|---|---|
| BMGF | Bill & Melinda Gates Foundation |
| CI | Confidence interval |
| CS | Caesarean section |
| DOI | Declaration of Interest |
| 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 |
| IOL | Induction of labour |
| LMIC | Low and middle-income country |
| MCA | [WHO Department of] Maternal, Newborn, Child and Adolescent Health |
| MPA | Maternal and Perinatal Health and Preventing Unsafe Abortion (a team in WHO's Department of Reproductive Health and Research) |
| MPH | Maternal and perinatal health |
| NICU | Neonatal Intensive Care Unit |
| NNT | Number needed to treat |
| PICO | Population (P), intervention (I), comparison (C), outcome (O) |
| RHR | [WHO Department of] Reproductive Health and Research |
| RR | Relative risk |
| SDG | Sustainable Development Goals |
| UN | United Nations |
| UNFPA | United Nations Population Fund |
| USAID | United States Agency for International Development |
| WHO | World Health Organization |

# Contents

# Executive Summary

## Introduction

Hypertensive disorders of pregnancy are an important cause of severe morbidity, long-term disability and death among both pregnant women and their babies, and account for approximately 14% of all maternal deaths worldwide. Improving care for women around the time of childbirth is a necessary step towards achievement of the health targets of the Sustainable Development Goals (SDGs). Efforts to prevent and reduce morbidity and mortality during pregnancy, childbirth and the postpartum period could also help address the profound inequities in maternal and perinatal health globally. To achieve these aims, healthcare providers, health managers, policymakers and other stakeholders need up-to-date and evidence-based recommendations to inform clinical policies and practices.

In 2017, the Executive Guideline Steering Group (GSG) on the World Health Organization's (WHO) maternal and perinatal health recommendations prioritized the updating of the existing three WHO recommendations on the management of severe pre-eclampsia before term in response to important new evidence on these questions. These recommendations are a revalidation of the previous recommendations issued in 2011 in the *WHO recommendations on prevention and treatment of pre-eclampsia and eclampsia.*

## Target audience

The primary audience of these recommendations includes health professionals who are responsible for developing national and local health protocols (particularly those related to hypertensive disorders of pregnancy) and those directly providing care to pregnant women and their newborns, including midwives, nurses, general medical practitioners, obstetricians, managers of maternal and child health programmes, and relevant staff in ministries of health, 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 using this process, namely:

(i) identification of the priority question and critical outcomes;

(ii) retrieval of evidence;

(iii) assessment and synthesis of evidence;

(iv) formulation of the recommendation; and

(v) planning for the dissemination, implementation, impact evaluation and updating of the recommendations.

The scientific evidence supporting these recommendations was synthesized using the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach. The systematic review was used to prepare evidence profiles for the prioritized question. WHO convened an online meeting on 2 May 2018 where an international group of experts – the Guideline Development Group (GDG) – reviewed and approved these recommendations.

## The recommendations

The GDG reviewed the balance between the desirable and undesirable effects and the overall certainty of supporting evidence, values and preferences of stakeholders, resource requirements and cost-effectiveness, acceptability, feasibility and equity. The GDG revalidated the WHO recommendations published in 2011 with minor revisions to the remarks and implementation considerations.

To ensure that the recommendations are correctly understood and applied in practice, guideline users should refer to the remarks, as well as to the evidence summary, if there is any doubt as to the basis for the recommendations and how best to implement them.

**Table 1: WHO recommendations: policy of interventionist versus expectant management of severe pre-eclampsia before term.**

**Recommendations:**

1. **Induction of labour is recommended for women with severe pre-eclampsia at a gestational age when the fetus is not viable or unlikely to achieve viability within one or two weeks. (*strong recommendation, very low certainty evidence*)**
2. **In women with severe pre-eclampsia, a viable fetus and before 34 weeks of gestation, a policy of expectant management is recommended, provided that uncontrolled maternal hypertension, increasing maternal organ dysfunction or fetal distress are absent and can be monitored. (*conditional recommendation, very low certainty evidence*)**
3. **In women with severe pre-eclampsia, a viable fetus and between 34 and 36 (plus 6 days) weeks of gestation, a policy of expectant management may be recommended, provided that uncontrolled maternal hypertension, increasing maternal organ dysfunction or fetal distress are absent and can be monitored. (*conditional recommendation, very low certainty evidence*)**

**Remarks**

- A policy of expectant management usually includes intra-hospital care with steroids for fetal lung maturation, magnesium sulfate (as necessary), antihypertensive drugs (as necessary), and close maternal and fetal monitoring to identify indications for delivery (e.g. uncontrolled hypertension, deterioration in the condition of the mother and the fetus, including organ dysfunction and fetal distress). As part of expectant management, in-utero transfer to a tertiary-level centre with neonatal intensive care capacity should be considered. The decision on the route of delivery should be made on a case-by-case basis, taking into account, among other factors, gestational age, fetal and cervical status and urgency.

- The guideline development group considered that the gestational age threshold for using expectant management in very preterm fetuses depends on the fetal viability status and on the anticipated prolongation of gestation with expectant management. The guideline development group acknowledged that the gestational age threshold of fetal viability should be locally agreed. In establishing this threshold, the local context, the availability of resources, and the local newborn survival rates by gestational age should be considered. The average gain in terms of prolongation of gestation with expectant management ranges from 1 week to 2 weeks. Hence, fetuses at a gestational age 1–2