

WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, second edition



WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, second edition



World Health
Organization



research for impact

UNDP · UNFPA · UNICEF · WHO · WORLD BANK

WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, second edition

ISBN 978-92-4-003082-4 (electronic version)

ISBN 978-92-4-003083-1 (print version)

© World Health Organization 2021

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 guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, second edition. Geneva: World Health Organization; 2021. Licence: [CC BY-NC-SA 3.0 IGO](https://creativecommons.org/licenses/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.

Layout and design: Studio FFOG.



Contents

Acknowledgements	v
Acronyms and abbreviations	vii
Executive summary	viii
Background	viii
Methods	viii
Summary of screening and treatment recommendations to prevent cervical cancer	x
1. Introduction	1
1.1 Background	1
1.2 Approaches to screening and treatment	3
1.3 Rationale for this new edition of recommendations	4
1.4 Phased approach for the development of the recommendations	5
1.5 Target audience	6
2. Methods	7
2.1 Groups contributing to the guideline development process	7
2.2 Scoping review and appraisal of the existing recommendations	9
2.3 Priority questions for review of evidence	10
2.4 Priority algorithms	11
2.5 Outcomes	11
2.6 Syntheses of evidence	12
2.7 Development of the recommendations	18
2.8 Management of the external peer review	19
3. Important considerations for the recommendations	20
3.1 Programme considerations	20
3.2 Screening and triage tests considered in this guideline	21
3.3 Treatment considerations	23

4. Recommendations and good practice statements on screening and treatment to prevent cervical cancer	24
4.1 Recommendations and good practice statements: general population of women	24
4.2 Recommendations and good practice statements: women living with HIV	31
4.3 Additional recommendation and good practice statement for treatment not covered in previous guidelines for the general population of women and women living with HIV	38
5. Research gaps and further considerations	39
6. Dissemination and updating of the guideline	41
6.1 Guideline dissemination and impact	41
6.2 Guideline update	42
References	43
Annexes	47
Annex 1: Guideline groups	48
Annex 2: Evidence-gathering teams and guideline task groups	58
Annex 3: Declarations of interests	60
Annex 4: Seven algorithms prioritized for Phase 1 of the guideline update	63
Annex 5: Standardized definitions used in this guideline	73
Annex 6: Additional information for screening and treatment recommendations	95

ADDITIONAL SUPPORTING MATERIALS AVAILABLE ONLINE:

Web annex A: Syntheses of the evidence

Available at: <https://apps.who.int/iris/bitstream/handle/10665/342366/9789240030886-eng.pdf>
(Includes IARC handbook materials and Supplementary materials 1–13)

Web annex B: Evidence-to-decision (EtD) tables

Available at: <https://apps.who.int/iris/bitstream/handle/10665/342367/9789240030893-eng.pdf>
(Includes EtD for PICO questions 1–10)

Acknowledgements

The Department of Sexual and Reproductive Health and Research and the Department of Global HIV, Hepatitis and Sexually Transmitted Infections Programmes at the World Health Organization (WHO) would like to thank members of the Guideline Development Group (GDG) for their consistent availability and commitment to making this guideline possible, and the members of the External Review Group (ERG) and all other external contributors for their work. The Departments are also grateful to the International Agency for Research on Cancer (IARC) for the literature reviews performed in the context of the updating of the *IARC handbooks of cancer prevention: cervical cancer screening, Vol. 18* (2021), which were extremely useful for this guideline development process. Special thanks to Nancy Santesso, the guideline methodologist from McMaster University, who also led the systematic review process, and thank you to all the members of the systematic reviews teams, coordinated by Nancy Santesso. The names of the members of the GDG, ERG and of the other contributors, in particular systematic reviewers, modellers and costing teams, are listed below, with full details provided in [Annex 1](#). We appreciate the overall support of the WHO Guidelines Review Committee Secretariat during the guideline development process, with grateful thanks to Rebekah Thomas Bosco who is leading the GRC Secretariat.

The WHO Steering Group was composed of Nathalie Broutet, Shona Dalal, Linda Eckert (who also supported the GDG, the workgroups, and the WHO Secretariat), Morkor Newman and Ajay Rangaraj. This group was assisted by Myriam Cortes and Jane Werunga-Ndanareh. Nathalie Broutet and Shona Dalal also led the guideline development process.

The members of the GDG were Claire Achieng, Silvina Arrossi, Muhammad Atif Waqar, Ruth Awori, Ruanne Barnabas, Itamar Bento Claro, Neerja Bhatla, Marie-Claude Boily, Laia Bruni, Joanna Cain, Lameck Chinula, Mike Chirenje (GDG Co-Chair), Michael Chung, Flavia Miranda Correa, Miriam Cremer, Teresa Darragh, Lynette Denny, Silvia de Sanjose, Mamadou Diop, Wachara Eamratsameekool, Danielle Engel, Julia Gage, Ali Ghanbari-Motlagh, Patti Gravitt, Margaret Happy, Tarek Hashem, Rolando Herrero, Priscilla Ingbian, Ebony Johnson, Sharon Kapambwe, Bayarsaikhan Luvsandorj, Anne Mackie, Mauricio Maza, Sebitloane Motshedisi, Nelly Mugo, Raul Murillo, Laura Muzingwani, Ashrafun Nessa, Dorcas Obiri-Yeboah, Gina Ogilvie, Patrick Petignat, Maria Alejandra Picconi, Leeya Pinder, Walter Prendiville, Veronica Reis, Gracia Violetta Ross Quiroga, Vikrant Sahasrabuddhe, Pete Sasieni, Anna Shakarishvili, Netsanet Shiferaw, Petra Tenhoope-Bender, Myint Myint Thinn, Julie Torode (GDG Co-Chair), Nicolas Wentzensen and Fanghui Zhao.

The members of the ERG were Raveena Chowdhury, Heather Cubie, Suzanne Garland, Sarita Ghimire, Zaki El Hanchi, Ha Hyeong In, Oh Jin-Kyoung, Alejandra Meglioli, Mohammed Moawia, Lim Myong Cheol, Angélica Nogueira, Mark Schiffman, Saritha Shamsunder, Vanita Suri, Carolina Teran, Ted Trimble, Gino Venegas and Heather White.

External contributors to the evidence profiles were Marc Arbyn, Ruanne Barnabas, Iacopo Baussano, Marie-Claude Boily, Veronique Bouvard, Karen Canfell, Michael Caruana, Ian Cree, Owen Demke, Cindy Gauvreau, Michaela Hall, Eva Herweijer, Iciar Indave, Adam Keane, Helen Kelly,

James Killen, Gigi Lui, Diep Nguyen, Bernardo Nuche, Catherine Sauvaget, Holger Schünemann, Kate Simms, Ronaldo Silva, Karin Sundström, Katayoun Thaghavi, Cari van Schalkwyk and Brian Williams.

The following individuals acted as observers at the GDG meeting: Benjamin Anderson, J. (Hans) Berkhof, Smiljka de Lussigny, Eduardo Franco, Lisa Pei-Ching Huang, Krishna Jafa, Jose Jeronimo, Somesh Kumar, Ilana Lapidos-Salaiz, David Mesher, Jasantha Odayar, Groesbeck Parham, Carmen Pérez Casas, Felipe Roitberg and Heather Watts.

The WHO Secretariat included Maribel Almonte Pacheco, Prebo Barango, Partha Basu, Paul Bloem, Nathalie Broutet, Gary Clifford, Marilys Corbex, Myriam Cortes, Shona Dalal, Jean-Marie Dangou, Maeve De Mello, Gampo Dorji, Linda Eckert, Fayad El Sheikh, Elena Fidarova, Massimo Ghidinelli, Karima Gholbzouri, Rodolfo Gomez Ponce de Leon, Sami Gottlieb, Joumana George Hermez, Raymond Hutubessy, Andre Ilbawi, Naoko Ishikawa, Chandani Anoma Jayathilaka, Rajat Khosla, Warrick Junsuk Kim, Stephanie Yetunde Kuku, Hugues Lago, Beatrice Lauby-Secretan, Silvana Luciani, Priya Mannava, Dara Masoud, Manjulaa Narasimhan, Morkor Newman, Leopold Ouedraogo, Tina Purnat, Neena Raina, Ajay Rangaraj, Leanne Margaret Riley, Anita Sands, Tshidi Sebitloane, Mukta Sharma, Hai-rim Shin, Slim Slama, Vitaly Smelov, Howard Sobel, Ute Ströher, Adriana Velazquez Berumen, Lara Vojnov and Hongyi Xu.

Funding for the preparation, development and printing of the guideline was provided mainly by the UNDP-UNFPA-UNICEF-WHO-World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP), with the support of the United States President's Emergency Plan for AIDS Relief (PEPFAR) through the United States Agency for International Development (USAID), and Unitaid.

This guideline was edited and proofread by Green Ink.

Acronyms and abbreviations

AIS	adenocarcinoma in situ
ART	antiretroviral therapy
CIN	cervical intraepithelial neoplasia
CKC	cold knife conization
DOI	declaration of interest
ERG	External Review Group
EtD	evidence-to-decision
GDG	Guideline Development Group
GRC	Guidelines Review Committee
GRADE	Grading of Recommendations Assessment, Development and Evaluation
HPV	human papillomavirus
HRP	UNDP-UNFPA-UNICEF-WHO-World Bank Special Programme of Research, Development and Research Training in Human Reproduction
IARC	International Agency for Research on Cancer
IPD-MA	individual patient data meta-analysis
LEEP	loop electrosurgical excision procedure (also known as LLETZ)
LLETZ	large-loop excision of the transformation zone (also known as LEEP)
NAAT	nucleic acid amplification test
PEPFAR	The United States President's Emergency Plan for AIDS Relief
PICO	population (P), intervention (I), comparator (C), outcome (O)
SDG	Sustainable Development Goal
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund

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_23739

